

The Role and Impact of Human Resource Management:

A Multi-level Investigation of Factors Affecting Employee Work Engagement

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Abstract

The purpose of this study was to explore the role and impact of Human Resource Management (HRM) practices on employees' work engagement, and the mediating role of the relational psychological contract in this relationship. Responses were gathered through questionnaires from 463 employees and 35 HRM representatives across 35 organizations. The HRM representatives gave information regarding the HRM practices in their organizations, while employees relayed their perception of work engagement and how they experienced the psychological contract with their employer. Multi-level regression analysis were used to investigate the assumptions. The analysis found no direct effect between the HRM practices and work engagement. However, a mediating effect was established with relational psychological contracts, between motivation enhancing HRM practices and work engagement. This suggests that performance based pay and performance appraisals indirectly affect employees' work engagement through their relational psychological contract. This result adds knowledge to which factors enhance employee motivation in the Norwegian context. Future research is recommended on all the variables and relationships in this study as a small data set may have led to low statistical power and the intervention from confounding variables.

Introduction

Over the past decades researchers have shown growing interest in HRM practices (Jiang, Lepak, Hu, & Baer, 2012). The main goal has been to investigate how organizations can maximize performance and creativity by still keeping expenses down (Combs, Liu, Hall, & Ketchen, 2006). The policies, practices and interventions considered as HRM practices can generally be described as employee management practices. Jiang et al. (2012) argues that by implementing practices such as training and development, selection methods, incentive rewards, empowerment and participation, employees' knowledge and motivation are likely to increase. HRM practices have been examined in meta-studies and received empirical support for being linked to both performance and motivation measures (Becker & Huselid, 1998; Huselid, 1995; Jiang et al., 2012)

In this study, HRM practices are suggested to be inducements or job resources that enhance *work engagement* (Schaufeli, Salanova, Gonzàles-Romà, & Bakker, 2002). It is assumed that investing in HRM practices has long-term financial benefits for organizations as employees will be motivated to stay instead of moving to other companies or competitors. Work engagement involves a focus on optimal functioning, good health and positive emotions in employees (Bakker & Demerouti, 2008; Schaufeli, Bakker, & Salanova, 2006). It is understood as a motivational construct that has both individual and organizational antecedents (Wollard & Shuck, 2011). Employees' engagement can be driven not only through self-efficacy and belief in mastering tasks (Chaudhary, Rangnekar, & Barua, 2012; Llorens, Schaufeli, Bakker, & Salanova, 2007), but also through organizational inducements such as training and development, performance feedback, social support, and supervisory coaching (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). To this date only a handful of empirical studies have investigated HRM practices as antecedents to work engagement (Wollard & Shuck, 2011), and these can, to a large degree, be categorized as single HRM practices examining the effects of a few rather than several HRM practices (Wright & Boswell, 2002). The first aim of this study is thus to create a new consensus regarding the effects of a larger model with multiple HRM practices and their effect on work engagement.

The relationship between HRM practices and organizational outcome measures is argued to be mediated by variables that provide additional explanations (Ramsay, Scholarios, & Harley, 2000). Rousseau (1995) was one of the first to assume that psychological contracts mediate the relation between HRM practices and employee performance. Psychological

contracts evolve between the employer and employee throughout the employment and are made up of the mutual expectations and contributions that exist between the parties in the employment contract (Rousseau, 1989). Psychological contracts have been related to positive outcomes such as performance (Turnley, Bolino, Lester, & Bloodgood, 2003; Uen, Chien, & Yen, 2009; Zhao, Wayne, Glibkowski, & Bravo, 2007), and more recently to work engagement where HRM practices played the role of antecedent (Bal, De Cooman, & Mol, 2013; Bal & Kooij, 2011). The second aim of this study is to examine whether psychological contracts play a role as a mediator between HRM practices and work engagement.

The present research gathered data from both the unit level and employee level. This increases the statistical power and ability to predict the effect HRM practices have on the employee variables and reduces common methods bias (See Figure 1).

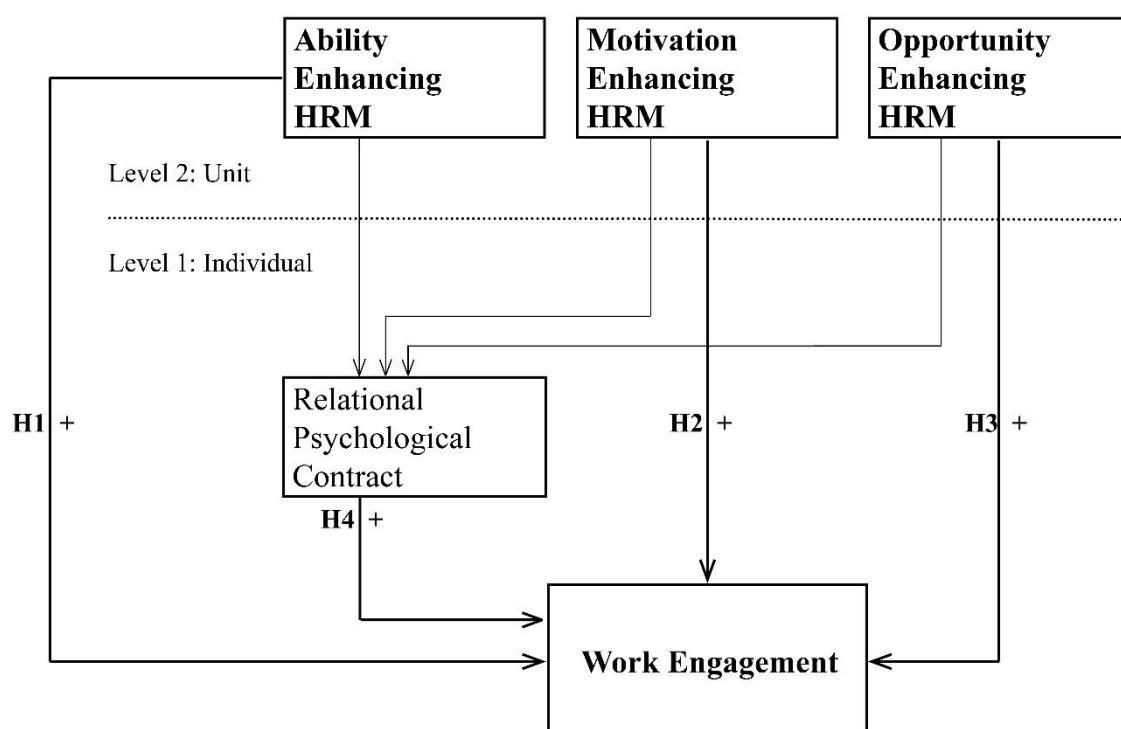


Figure 1. Model of the mediation design: HRM practices affect work engagement indirectly through relational psychological contracts.

The present study contributes theoretically to research on HRM (Jiang et al., 2012) by examining HRM practices with work engagement as an outcome. Despite the high likelihood that HRM practices have beneficial effects on employee engagement, little empirical evidence exists that focuses specifically on the role and impact of HRM practices on work engagement

(Wollard & Shuck, 2011). Another theoretical contribution is made by examining the mediating role of relational psychological contracts. HRM practices have been argued to have positive influences on the socio-emotional exchange agreement that employees experience toward their organization and there is still little research examining the effects of several HRM practices to employee psychological contracts (Wright & Boswell, 2002). Further, this study contributes to HRM research from a macro perspective by exploring several HRM practices at the managerial level and their effect on work engagement on the employee level. By performing data collection across organizations, we receive information about how these variables are related to each other in the wider context of society (Wright & Boswell, 2002). This increases the generalizability of the results that this present model provides. Lastly, this study contributes to the understanding of how these variables are related in the Norwegian context, which is to my understanding a relatively new context for HRM research.

Work Engagement

A few years before the first concept measuring only work engagement appeared, Maslach and Leiter (1997) had categorized engagement as the opposite construct to burn-out.. This notion is consistent with the era in positive psychology that developed around the same time, when work engagement evolved as a consequence of research focusing more on success factors and motivation, as opposed to illness (Bakker & Demerouti, 2008; Schaufeli et al., 2006). Schaufeli et al.'s (2002) definition of work engagement - "A positive, fulfilling, and work related state of mind that is characterized by *vigor*, *dedication*, and *absorption*" - is the most cited in academia (Wefald & Downey, 2009). *Vigor* is characterized by mental resilience and high levels of energy when working (Schaufeli et al., 2002). This means that when difficulties arise, one keeps up the effort and stays persistent in following through. *Dedication* involves inspiration, enthusiasm, pride, a sense of significance and challenge. To be dedicated is described as being more than involved, including a particular state of cognitive belief and affect. *Absorption* means to stay concentrated and deeply focused in tasks. In this state, one often loses track of time and has problems laying down work. Employees' state of work engagement has been conceptualized in different ways. While Schaufeli et al. (2002) argued that employee engagement is persistent and pervasive and thus lasts over longer periods of time, Bakker, Albrecht, and Leiter (2011) proposed that engagement might also vary from day to day, and also within each day. In this study the state of employee engagement is understood as long term, since this follows the theoretical conceptualization that most empirical studies use (Wefald & Downey, 2009). In sum, engaged workers possess an energetic and effective

drive toward accomplishing their tasks. They also act with confidence and see themselves capable of dealing competently with the challenges that follow from their work.

Human Resource Management Practices and Work Engagement

HRM practices intend to enhance the skills and knowledge of employees (Boselie, Dietz, & Boon, 2005), and empirical studies have shown that HRM practices beneficially affect performance and motivation (Huselid, 1995; Jiang et al., 2012; Wright & Boswell, 2002). In this thesis, I use the framework of Jiang et al. (2012) which clusters various HRM practices into the bundles *ability*, *motivation*, and *opportunity* (AMO). The focus of the AMO framework is to improve employees' outcomes through prioritizing resources on HRM practices that enhance their motivation and performance (Jiang et al., 2012). Thus, the AMO framework fits well with work engagement as an outcome variable since it is related to motivation and performance on the employee level (Bakker & Demerouti, 2008). The bundles in the AMO framework consist of several HRM practices. The practices chosen for each bundle in this thesis are among the most frequently researched in the HRM field (Boselie et al., 2005). In the following chapter, empirical research that is supportive of a relationship between the bundles and work engagement will be presented in more detail.

Ability Enhancement

The ability enhancement bundle includes training and development and selection and recruitment practices. Whereas training and development seek to ensure that employees are provided with the appropriate skills and knowledge to perform (Jiang et al., 2012), selection and recruitment practices are used for gathering information about employees and finding candidates with matching skills and competencies to specific job demands (Koch & McGrath, 1996).

Training and development practices have shown to increase employee motivation and to have financial benefits for organizations (Jiang et al., 2012). It is also among the most frequently studied incentives in the HRM research field (Boselie et al., 2005). The motivation effect in employees is explained by the continuous development in knowledge that they receive from training initiatives. These HRM initiatives help employees in coping with job tasks and teaches them how to master future roles (Jiang et al., 2012). The motivation effect in employees due to training and development initiatives can be seen as related to employee engagement, since engagement is understood as a motivational construct (Wollard & Shuck,

2011). Organizations need to prioritize resources for these HRM practices in order to increase employees work engagement through training and development initiatives (Bakker & Demerouti, 2008). Empirical studies in the research field of work engagement support this notion. A study on developmental HRM, that included training practices and job enrichment, established a significant effect on work engagement (Bal, Kooij, & De Jong, 2013). This study took a multi-level approach similar to my study, exploring the effects of HRM practices at the unit level on employee engagement at the individual level. A recent longitudinal study on job resources and training and development, established a significant effect on work engagement (Schaufeli, Bakker, & Van Rhenen, 2009). This study explored the variability between job resources and engagement over time and found that when resources in training increase, so does employee engagement, after controlling for initial engagement. Hakanen, Bakker, and Schaufeli (2006) argued that the effect between training and development initiatives and work engagement is caused by supervisory support and access to information in the training period. A study on HRM and the employee-organization relationship argued that training has beneficial effects on employees perceptions toward the organization and management (Kuvaas, 2007). Kuvaas argues that the positive attitudes held by employees from HRM inducements also improve their work performance and motivation. A recent meta-study supports these findings, as it found work engagement to be related to performance, and explained this by positive attitudes held by employees and their drive for succeeding with tasks (Bakker & Demerouti, 2008). From these studies it is highly likely that training and development practices, by enhancing skills and knowledge, have beneficial effects on employee work engagement.

Selection and recruitment procedures are argued as beneficial for employers and employees. Selection tools such as cognitive tests and personality inventories are methods that aim to extract information about the applicant's skills and talent. With this information employers can predict future employees' performance and motivation (Koch & McGrath, 1996). Since jobs vary in tasks and demands, and people vary in skill and talent, not all will be able to perform well and be engaged in doing all types of jobs. According to Schaufeli and Bakker (2004), work engagement is more likely to increase when the skills and talent of an employee fit the job demands. A meta-study on HRM practices supports this notion, as selective staffing techniques were shown to enhance motivation of employees and organizational performance (Huselid, 1995). These outcomes have also been related to work engagement (Bakker & Demerouti, 2008). One reason why motivation increases due to

selective staffing techniques is that employees experience recognition by making use of their skills and talent (Huselid, 1995). Further, Bakker and Demerouti (2008) argue that engaged workers will be more productive due to the ability to mobilize their resources skills and knowledge. Thus, for being able to mobilize resources, there must be opportunities for employees to make use of their skills and expertise. It is, therefore, believed that HRM units can contribute to enhancing work engagement of employees by practicing staffing techniques, such as selection tools and cognitive tests, and thus fit the candidate's skills and expertise to the relevant job demands. Youndt, Snell, Dean, and Lepak (1996) support this notion as their study found that increased performance in employees and organizations are due to success in the recruitment process. According to these studies, it can be assumed that selection tools and the recruitment process can lead to enhanced work engagement and motivation in employees as it allows them to make use of their talents and skills in the right job setting.

The HRM practices of training and development seek to enhance skills and knowledge and recent studies have shown that practicing these incentives increases work engagement in employees. These effects were explained by social support from the management during the procedures of sharing of information. Practicing selection tools such as cognitive tests and personality inventories can help organizations to receive information about employees' skills and abilities, and use this information to fit the right person to the right job. It is therefore assumed that HRM practices such as training and development, and selection and recruitment will have a positive effect on employees' work engagement.

Hypothesis 1: Ability enhancing HRM practices at the unit level have a positive effect on work engagement at the individual level.

Motivation Enhancement

Motivation enhancing HRM practices consist of reward systems and performance appraisals intended to increase motivation in employees (Jiang et al., 2012). Reward systems such as performance related pay and gain sharing are ways of rewarding performance, while performance appraisals focus on communicating performance feedback to employees. The combination of performance related pay and performance appraisals are argued to be one of the most powerful motivation tools available in organizations (Rynes, Gerhart, & Parks, 2005).

Reward systems and appraisals have shown to increase work engagement in employees (Koyuncu, Burke, & Fiksenbaum, 2006). Koyuncu et al. assume that reward systems and performance appraisals are the main predictors among several antecedents meant to enhance performance and motivation. However, the notion that caveats exist in using different reward systems is backed by meta-studies (Perry, Engbers, & Jun, 2006; Rynes et al., 2005). In order to achieve success from reward systems and performance appraisals, it is important that the management prioritizes resources and considers each specific context where reward systems are used (Perry et al., 2006). Bakker et al. (2011) argue that when employers provide meaningful work to employees, and practice feedback and reward in this process, employees will experience more engagement and push their abilities to deliver. This notion is supported by several empirical studies that found a significant relationship between performance appraisal and employee engagement (Chaudhary et al., 2012; Llorens, Bakker, Schaufeli, & Salanova, 2006; Schaufeli & Bakker, 2004). HRM studies have found that performance (Youndt et al., 1996), labor productivity and service quality (Ramsay et al., 2000) and motivation (Jiang et al., 2012), are outcomes of using reward systems and performance appraisals. Increased employee performance and motivation have also been related to work engagement and are argued to be beneficial for organizations and employees (Bakker & Demerouti, 2008; Christian, Garza, & Slaughter, 2011; Wollard & Shuck, 2011). In addition, studies exploring rewards and performance appraisals as single HRM practices have established similar results. A study on performance related pay found that intrinsic motivation and performance of employees were higher compared to conventional pay systems (Schmidt, Tittel, & Müller, 2011). Gain sharing - a group performance related pay initiative - has also shown to increase positive attitudes and performance among employees (Petty, Singleton, & Connell, 1992). In this study, a division of workers was offered shared profits for managing goals related to efficiency and reduction in expenses. As a result, they achieved higher scores in performance measures compared to a control group who did not use the same gain sharing initiative. Thus, there are several positive outcomes for organizations and employees by practicing reward systems and performance appraisals. Outcomes such as increased motivation, performance and positive attitudes in employees are also believed to be related to work engagement (Bakker et al., 2011; Bakker & Demerouti, 2008; Christian et al., 2011; Koyuncu et al., 2006). It is therefore assumed that using reward systems and performance appraisals increase engagement in employees.

When organizations prioritize resources on HRM practices that involve appropriate reward systems and appraisals, benefits arise. These benefits are not only affecting performance, and increased financial outcomes, but also positive attitudes and motivation in employees. Thus, by practicing performance related pay initiatives and performance appraisal employees' engagement can increase.

Hypothesis 2: The motivation enhancing HRM practices at the unit level have a positive effect on work engagement at the individual level.

Opportunity Enhancement

Opportunity enhancement includes employees' participation and teamwork practices. These practices are seen as tools that provide opportunities for employees to make use of their expertise and motivation (Jiang et al., 2012). Participation involves empowering employees and allowing them to take part in decisions on how to achieve goals. Teamwork is a typical arena where such practices fit in, as it often allows decision making for participating members and sharing information and knowledge are necessary goals.

HRM practices including participation and empowerment have shown to increase motivation and performance (Jiang et al., 2012). A study on leader behaviours found that empowered sub-ordinates increase their intrinsic motivation and self-efficacy (Redmond, Mumford, & Teach, 1993). These outcomes have also been related to work engagement (Llorens, Salanova, Schaufeli, & Bakker, 2004; Chaudhary, Rangnekar, & Barua, 2012). Self-managed teams are argued to facilitate information sharing and knowledge (Combs et al., 2006), and HRM models including teamwork procedures have had a positive effect on firm performance (Huselid, Jackson, Schuler, 1996). A study examining different bundles of HRM practices linked teamwork to positive work relations, innovation and performance (Guest, Conway, & Dewe, 2004). It was also found that teamwork often is placed in the same bundle as participation and job design. This is due to the fact that team members are often dependent on each other's contributions for succeeding with tasks, and therefore share information and participate in order to complete the work. The teamwork process has been argued to affect emergent states in team members' attitudes, motivation and satisfaction (Marks, Mathieu, & Zaccaro, 2001). Thus, teamwork and participation is also believed to enhance work engagement, due to its motivational nature that is facilitated by positive attitudes (Bakker & Demerouti, 2008). Empirical studies that support this notion are the ones that specifically link the participation process to employee engagement (Bhatnagar, 2012; Rees, Alfes, & Gatenby,

2013). Work engagement has also been related to empowering leadership styles (Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010). Here it was argued that for employees to be given the opportunity to participate, the management needs to trust their employees and their ability to cope with the responsibility given to them. Participation in goal setting has also shown to affect intrinsic motivation and performance in employees (Schmidt et al., 2011), which are outcomes related to work engagement (Bakker & Demerouti, 2008; Wollard & Shuck, 2011). From the studies presented above, it is believed that participation and teamwork processes have both positive effects on the work environment and on employees intrinsic motivation. By enabling employees to perform their tasks, and by making use of efficient teamwork procedures, one can create increased levels of work engagement in employees.

HRM practices that give employees' the opportunity to participate in decisions are beneficial for their engagement and thriving at work. Participation depends on the management trusting the employees. Relying on teamwork is argued to increase levels of employee engagement. Teamwork gives employees an arena for practicing participation by sharing information, developing knowledge, and gaining positive work relations. Thus, the HRM practices of teamwork and participation are both suggested to affect work engagement.

Hypothesis 3: Opportunity enhancing HRM practices at the unit level have a positive effect on work engagement at the employee level.

The Mediating Role of Psychological Contracts

Psychological contracts were suggested to mediate the relation between HRM practices and work outcomes (Rousseau, 1995). According to Rousseau and Greller (1994), HRM practices have positive effects on the psychological contracts that emerge between employer and employee throughout the employment period. Psychological contracts are defined as "individual beliefs, shaped by the organization, regarding an exchange agreement between individuals and their organizations" (Rousseau, 1995, p. 9). Psychological contracts consist of beliefs made up by the terms and conditions of a formal agreement between the parties that arise from interactions between employer and employee (Rousseau, 1989). The HRM practices included in this study are therefore understood as part of the contents in the formal agreement. Thus, HRM practices induces employees' perceptions about the terms and conditions in their employment relationship. Psychological contracts have been argued to follow a pattern of reciprocity that evolves between the parties (Rousseau, 1989). Employers

will expect that the HRM practices improves employees way of working, while employees' will expect that HRM practices are beneficial and relevant for their work context. Consistent patterns of employer inducements and employees' contributions, leads to trust in management over time and the psychological contracts becoming more relational (Rousseau, 1989).

Relational psychological contracts are understood as being long-term and including terms of loyalty between the employer and employee. Hence, they are different from transactional psychological contracts, which are restricted to only economic exchanges between the parties (Raja, Johns, & Ntalianis, 2004). This fits well with the HRM practices included in this study, since these can be understood to affect both the economic and socio-emotional interests of employees (i.e. performance based pay and performance appraisal). The appearance of relational psychological contracts in this research setting also corresponds with the idea that HRM practices create beneficial effects on the reciprocal expectations between the two parties (Wright & Boswell, 2002). Throughout this chapter, it will therefore be argued that psychological contracts mediate the relationship between HRM practices and work engagement.

To my knowledge, few studies have established a mediation using relational psychological contracts between HRM practices and a motivation or performance outcome. Only Bal, Kooij, et al. (2013) established mediation with relational psychological contracts between training and development and work engagement as outcome. Accordingly, when employees receive the opportunity to take part in training initiatives and develop their knowledge, in addition to experiencing engagement they also experience their employment relationship as more relational and long-term. Uen et al. (2009) also established a significant mediation but in regards to psychological contract fulfilment between HRM practices and performance. They argued that, when HRM practices are part of the work context, employees experience their employment arrangement as open-ended and based on trust, and they will work harder due to these perceptions. It is therefore suggested that relational psychological contracts provides further insight about the intervening variables that exist between HRM practices and work engagement.

HRM practices were argued to have positive effects on psychological contracts that exist between employer and employee (Wright & Boswell, 2002). Recent empirical studies support this notion since the HRM practices of training and development were significantly related to psychological contracts in employees (Bal, Kooij, et al., 2013; Guest, Isaksson, & De Witte, 2010; Uen et al., 2009). This effect appears because employees experience training and

development as having social support from the management (Bal, Kooij, et al., 2013; Montes & Irving, 2008). The HRM practices of selection and recruitment, have to my knowledge, not been examined empirically. However, these practices are believed to affect relational psychological contracts through the process of matching employees' skills and knowledge to specific job demands. When employees experience recognition regarding their skills and expertise from the employer, positive perceptions of reciprocity in the employment relationship emerges. Performance related pay has shown to have beneficial effects on psychological contracts (Guest et al., 2010; Scheel, Rigotti, & Mohr, 2013; Uen et al., 2009). Monetary benefits and higher salaries are believed to create perceptions of stability in employees and thus affect their motivation for long-term employment (Uen et al., 2009). These perceptions fit well with the rationale of relational contracts, which focus both on economic and socio-emotional terms between employer and employee (Raja et al., 2004). The HRM practices performance appraisal and participation have also shown to have beneficial effects on psychological contracts (Porter, Pearce, Tripoli, & Lewis, 1998). Porter et al. investigated if employers and employees reported similar or different amounts of inducements given to employees and the consequences of these perceptions. When employers and employees agreed on the levels of participation and performance appraisal practices, employees reported higher satisfaction about their organizations and a better psychological contract between the parties. As for the case with teamwork, it was argued that these processes emphasize information sharing and employee participation (Jiang et al., 2012). These aspects are further believed to have positive effects on the relational psychological contracts, due to the socio-emotional nature of letting employees work together in solving tasks and reaching goals. From the studies presented above, it is therefore suggested that the HRM practices in the model of this study have beneficial effects on the relational psychological contracts.

Psychological contracts were also argued to have beneficial effects on work engagement. According to Rousseau (1989), research has widely ignored the vital role of psychological contracts for employee motivation. To my knowledge, only two empirical studies have established significant effects between the relational psychological contract and work engagement (Bal & Kooij, 2011; Bal, Kooij, et al., 2013). Bal and Kooij (2011) argued that psychological contracts play a critical role in creating positive attitudes and work engagement in employees. They also suggested that employees with relational psychological contracts are more willing to invest in work and their organization. This argument fits well with the

theoretical foundation of work engagement which characterizes engaged employees as dedicated and absorbed in their work (Schaufeli et al., 2002). Research in the field of psychological contract breach and its antecedents and outcomes can be generalized in the present study's context. Breach occurs when employees experience that their expectations toward the organization are not fulfilled (Robinson & Rousseau, 1994). Empirical research has shown that a breach in the psychological contract leads to negative attitudes amongst employees (Bordia, Restubog, Bordia, & Tang, 2010). A meta-study supports this notion, where the breach led to lower satisfaction and commitment in employees (Zhao et al., 2007). Thus, when the psychological contracts are fulfilled, instead of breached, higher satisfaction, commitment and positive attitudes are held by employees. As it has been argued earlier, these beneficial outcomes share similarities with work engagement, since engaged employees are characterized as positive (Bakker & Demerouti, 2008) and dedicated to their work (Schaufeli et al., 2002). Further, it was shown that psychological contracts also lead to increased performance and extra-role behaviours in employees (Turnley et al., 2003). The effect of increased performance is believed to be related to work engagement, since past studies established this link (Christian et al., 2011). According to Christian et al. (2011), engaged employees perform better due to their investment in the social and psychological context. This further supports the contents of the relational psychological contract, which is characterized by employees who invest extra effort and time in their organizations (Bal & Kooij, 2011). According to these studies, it is highly likely that employees who share a relational psychological contract with their employer will also experience work engagement.

Relational psychological contracts depict a long-term formal agreement between the employer and employee that contains terms of loyalty and trust. This formal agreement is suggested to be positively affected by HRM practices. A positive outcome from these inducements is that employees will have increased beliefs in a management they can trust, and they wish to fulfil their obligations to. Consequently, employees will experience more work engagement. Accordingly, the HRM practices and work engagement link is believed to be mediated by employees' experiences of a relational psychological contract.

Hypothesis 4: Psychological contracts at the employee level mediate the relation between HRM practices at the unit level and employee work engagement.

Method

Procedure

The survey used two net-based questionnaires, one representing the leader level, and one representing the employee level. Each version of the questionnaire was estimated to take 15-20 minutes to complete. The sample was first recruited from the network of three master students at the University of Oslo. Later, companies outside their personal network were included. When selecting companies, a wide scope of criteria was used in terms of sector, size, and branch. This follows Wollard and Shuck's (2011) proposal on performing empirical studies between HRM practices and work engagement across multiple settings and organizations. Thus, both large and small companies were invited from both the private and public sector. Most companies could be categorized as belonging to the health, education, industry, service, media, or technology sector. All participants were contacted by e-mail and received an information letter containing all practicalities and ethical issues regarding this study. This included information about our role as researchers and treating data with confidentiality. Neither companies nor single participants could be recognized in the final papers or report made for each company that participated. The final papers were also offered in return to all companies and participants. When agreeing to partake, each company received a new e-mail with instructions and a link to the online survey. Further into the survey period reminders were sent to participating companies.

Sample

In total 183 companies were contacted by e-mail and invited to participate in this study. From these, 84 companies did not answer and 44 answered no. The remaining 63 companies received a link with the questionnaire and 35 of them attended, which led to an overall response rate of 54.5 %. The final sample of supervisors or HR representatives consisted of 35 participants. In a few companies, more than one leader filled out the questionnaire on the unit level. These cases were then aggregated into one case. In total, 1538 employees received the survey, while 463 finally participated. While the response rate of employees within companies ranged from 10.0 % to 100.0 %, the average overall response rate was thus 30.1 %. The response ratio between the unit and employees was 1:13, though this interval varied from 1:1 to 1:227. On the employee level 230 of the respondents (49.7 %) were women and 233 (50.3%) were men. The overall organizational tenure ranged from 0 to 39 (M=5.26, SD=6.41).

Measures

All measures used in this study have been applied in previous research. At the employee level, work engagement, relational psychological contracts and control variables were measured, while the HRM practices were measured at the unit-level. All the scales were originally in English, apart from the work engagement measure which had to be translated to Norwegian as most participants were most likely native Norwegians. Translations were done using an external translator and then back translated later for securing a high quality process. Only minor changes were made in the back translation. The Norwegian version of the 17-item scale measuring work engagement (Schaufeli & Bakker, 2003) originates from Schaufeli et al. (2002). Few and minor changes were made to this translation to better adapt it to the Norwegian language context.

Work Engagement. The 17-item measure of Schaufeli et al. (2002) asked employees to which degree they experience three different conditions of work engagement on a 7-point Likert scale. Work engagement consist of three sub-dimensions (vigor, dedication and absorption), which were aggregated into one variable in this study, because past studies found the three scales to usually inter-correlate above .65 (Schaufeli & Bakker, 2003; Schaufeli et al., 2002). *Vigor* was measured with 6 items and a sample item from this sub-scale is “*When I get up in the morning I feel like going to work*”). *Dedication* had 5 items, and a sample item from this sub-scale is “*To me, my job is challenging*”. Finally, *absorption* was measured with 6 items. A sample item from this scale is “*When I am working, I forget everything else around me*”. Cronbach’s alpha for the work engagement scale with all 17 items reached an α -level of .96.

Human Resource Management Practices. This measure contained six frequently researched HRM practices (Boselie et al., 2005), categorized into three categories of the AMO-framework (Jiang et al., 2011), all measured on a 5-point Likert scale. *Ability enhancing* HRM practices included a scale on *training and development* (Delery & Doty, 1996) which consisted of 4 items. A sample item from this scale is “*Extensive training is provided for individuals in this job*”. Further, *selection and recruitment* (Wei, Han, & Hsu, 2010) were measured with 3 items. A sample item from this scale is “*Our organization makes extensive efforts to select the right person*”. The internal consistency (α) for the ability enchantment scale was .74. *Motivation enhancing* HRM practices were measured by *performance related pay* (Wei, Han, & Hsu, 2010) consisting of 5 items. A sample item from

this scale is “*Our organization makes extensive efforts to select the right person*”. The second measure on motivation was *performance appraisal* with 3 items (Zhang, Wan, & Jia, 2008) plus an additional item (Klein & Haakensen, 2013). A sample item from this scale is “*Every employee has performance objectives*”. Motivation enhancement had an internal consistency (α) of .67. *Opportunity enhancing* HRM practices was measured with *participation* (Delery & Doty, 1996) consisting of 4 items. A sample item from this scale is “*Employees in this job are allowed to make many decisions*”. The *team-work* scale was composed of 5 items where 2 of these came from the measure of Zacharatos, Barling, and Iverson (2005) and the 3 last items from Guest, Michie, Conway, and Sheehan (2003). A sample item from this scale is “*The development of teams is an important element of this organization’s corporate strategy*”. The internal consistency (α) of the opportunity enhancement scale reached a level of .81.

Relational Psychological Contracts. This construct was measured on a 5-point Likert scale with 9 items (Raja et al., 2004). The Cronbach alpha (α) of these items was .86. A sample item from this scale is “*I expect to grow in this organization*”.

Control variables. The control variables for this study included gender and organizational tenure at the employee level. Gender was coded 1 for woman and 2 for men, while tenure was measured in numbers of years. Tenure was chosen since it has been proposed that psychological contracts become more consistent with seniority (Rousseau, 1989). Reciprocity is argued to develop over time due to sharing of information which lead to a positive development in agreement between manager and the employee (Tekleab & Taylor, 2003).

Data Analysis

All data was analysed with SPSS 21. Means, standard deviations, frequencies, and reliability were calculated for each variable. Participants had to fill in each page of the questionnaire to proceed with the survey. Some of the participants chose to drop out during the survey. Because data was stored from the pages they had filled in before they chose to quit, this data could be used in our analysis. This led to missing values for the relational psychological contract variable because it was placed in the end of the questionnaire. Therefore, relational psychological contracts had initially 354 respondents, while work engagement and the control variables reached 463. According to Schafer and Graham (2002), when the amount of missing data is high, as in this study, the chosen method for replacing the missing data might affect the final results. The simplest method for dealing with missing cases

has been to listwise delete cases with missing values. Since listwise deletion might have negative effects on the descriptive statistics and results (Schafer & Graham, 2002), a better alternative was chosen in this study. The best method for the present circumstances was to replace the missing values with the Expectation-Maximization method. This method takes into consideration the variance from the existing data and then replaces the missing data with values that are most likely to occur. This method is considered preferable to listwise deletion and best among other data replacement methods (Schafer & Graham, 2002).

Since the model investigated relationships at different levels, multi-level regression analysis was chosen as the appropriate method of analysis. The multi-level approach places data samples in clusters, which in this case, consisted of 35 different units. It also allows a robust cross-level examination of both between- and within- unit effects on an individual level dependent variable (Hox, 2010). The multi-level approach can be conceptualized as containing equations at the different levels of data. This study used two levels of data where employees represented the first level (level 1). Here, work engagement was measured as an outcome and relational psychological contracts as mediator. The HRM department or leaders represented the predictor level (level 2). Collecting data from employers and employees, reduces the likelihood for common methods bias in the sample (Podsakoff, MacKenzie, & Podsakoff, 2012).

The analysis of the dependent variable started with fitting an empty model only with the intercept of work engagement. This is for the purpose of determining the total unexplained variance in the model after taking the clusters of data and the *intra-class correlation* (ICC) into consideration. The multi-level model assumes that there is specific variance inside each company and that the differences in the measured variables are smaller within companies, compared to between companies (Hox, 2010). The model in this study, therefore, corrects for the clusters, as compared to regular multiple regression tools. This, in turn, decreases the likelihood of a type-1 error. This reflects a rejecting of the null-hypothesis and acknowledges an effect between the independent and dependent variable that is, in fact, not there (Hox, 2010).

This study also tested the mediation of relational psychological contracts between HRM practices and work engagement. For simple mediation models in multilevel research, it is argued that the effects of path-a and path-b are sufficient for obtaining a mediating effect (Preacher & Selig, 2012). To test the effects for the mediation, the Monte Carlo method (Selig

& Preacher, 2008) was chosen since it has shown to produce smaller errors in the confidence intervals compared to the Sobel test (Preacher & Selig, 2012). Testing for mediation included the following steps. First, the significance levels between the variables in the a-path and b-path were tested. Second, the significant relationships were then further tested with the Monte Carlo method. If the confidence interval did not contain 0.05, mediation was significant.

Results

Table 1 and 2 presents descriptive statistics, means, correlations and alpha values of both the predictor variables at the unit level, and the criterion variables at the employee level. Aggregation at the employee level and disaggregation at the unit level was avoided by separating the levels of analysis into individual tables. As shown in Table 1, reliabilities of both the engagement construct ($\alpha = .96$) and the relational psychological contract construct ($\alpha = .88$) reached internal consistency levels argued to be very good (DeVellis, 2003). As for the HRM practices bundles, motivation reached an internal consistency just above the minimum level of acceptance ($\alpha = .67$), while ability ($\alpha = .74$) and opportunity ($\alpha = .81$) reached acceptable levels.

Table 1

Means, Standard Deviations, Correlations and Reliabilities at Employee Level

No.	Variables	Mean	SD	1	2	3	4
1	Tenure	5.25	6.41				
2	Gender	1.50	.50	-.07			
3	Relational Psychological Contracts	3.41	.71	-.16**	.03	(.88)	
4	Engagement	5.46	1.15	.07	-.07	.42**	(.96)

Note. N=463 for all variables. Scale reliabilities (α) are reported on the diagonal in parentheses.

* $p < .05$ and ** $p < .01$.

Table 2

Means, Standard Deviations, Correlations and Reliabilities at Employer Level.

No.	Variables	Mean	SD	1	2	3
1	Ability	3.62	.68	(.74)		
2	Motivation	3.52	.57	.29	(.67)	
3	Opportunity	3.84	.60	.37*	.57**	(.81)

Note. N=35 for all variables. Scale reliabilities (α) are reported on the diagonal in parentheses.

* $p < .05$ and ** $p < .01$.

HRM Practices and Work Engagement

The intercept-only model for predicting work engagement was composed for calculating the unexplained variance between companies and employees (see Table's 3 and 4). This model showed a small significant effect of unexplained variance between groups after taking into consideration that this confidence interval was one-tailed and that SPSS report it as two-tailed. Thus, there were only small differences between groups (see Model 1 in Table 3). Further, the ICC measure indicated that 8 % of the unexplained variance in the null could be found at the group level. Model 2 included the control variables gender and tenure. Neither of these were significantly related to work engagement and the AIC did not change considerably. In this model, 10.2 % of the explained variance could be found on the group level. In Model 3 the predictors on level 2 were included, thus measuring each effect of the HRM bundles on work engagement. This model explained 43 % of the variance on the group level, and neither of the bundles was significantly related to engagement. Thus, Hypothesis 1-3 were not supported (see Model 3 in Table 3).

HRM practices and Psychological Contracts

Hypothesis 4 predicted that relational psychological contracts would partially mediate the relationship between HRM practices and work engagement. The first condition (path-a) in the mediation is shown in Table 4 Model 3. This represents the relationship between HRM practices and the relational psychological contract. The AIC drops from 1080 to 1070 which indicates a better fit of the model. This is probably due to the fact that motivation

enhancement was significantly related with relational psychological contracts (Est. = .35, $p < .05$). Further, ability enhancement (Est. = -.12, $p < .05$) and opportunity enhancement (Est. = .05, $p < .05$) were not significantly related to relational psychological contracts, and the explained variance between groups was 41.2 %. The second condition (path b) in the mediation is shown in Table 3 Model 4.

Table 3

Results of Multilevel Analysis Predicting Work Engagement.

Parameter	Model 1	Model 2	Model 3	Model 4
Fixed Effects	Est. (SE)	Est. (SE)	Est. (SE)	Est. (SE)
Intercept	5.59 (.09)***	5.68 (.19)**	5.66 (.88)***	2.84 (.26)**
Tenure		.01 (.01)	.01 (.60)	-.02 (.00)***
Gender		-.10 (.11)	-.12 (.11)	-.12 (.09)
Ability			-.07 (.14)	
Motivation			.19 (.21)	
Opportunity			.23 (.21)	
Relational Psychological Contracts				.79 (.06)**
Random effects				
σ^2 Level 1	1.24 (.08)***	1.24 (.08)***	1.24 (.01)***	.88 (.06)**
σ^2 Level 2	.10 (.07)**	.09 (.06)	.06 (.06)	.06 (.04)*
AIC	1439	1441	1443	1285

Note: AIC = Akaike's Information Criterion, a general fit-index.

* $p < .10$. ** $p < .05$. *** $p < .001$.

The relationship between relational psychological contracts and work engagement was significant ($\beta = .79$, $p < .05$). The AIC drops considerably which indicates a better fit of the model. Testing for the indirect effect between HRM practices to relational psychological contracts, further to work engagement, were only done with motivation enhancement, since this was the only significant variable. This was done with the Monte Carlo boot-strap web-

tool (Selig & Preacher, 2008). The significance level was 5% and the confidence interval ranged from 0.06 to 0.51. Thus, the confidence interval did not contain zero and thus confirmed mediation for the relationship between motivation enhancing HRM practices and work engagement through relational psychological contracts.

Table 4

Results of Multilevel Analysis Predicting Relational Psychological Contracts.

Parameter	Model 1	Model 2	Model 3
Fixed effects	Est. (SE)	Est. (SE)	Est. (SE)
Intercept	3.50 (.08)***	3.60 (.14)***	3.59 (.13)***
Tenure		-.02 (.01)***	-.02 (.00)***
Gender		.01 (.07)	-.00 (.07)
Ability			-.12 (.11)
Motivation			.35 (.14)**
Opportunity			.05 (.16)
Random effects			
σ^2 Level 1	.55 (.04)***	.54 (.04)***	.54 (.03)***
σ^2 Level 2	.13 (.05)**	.12 (.05)**	.07 (.04)***
AIC	1080	1073	1070

Note: AIC = Akaike's Information Criterion, a general fit-index.

* $p < .10$. ** $p < .05$. *** $p < .001$.

Control variables

Relational Psychological contracts were significant with organizational tenure, however, with the opposite effect as had been assumed (Est. = -.02, $p < .01$). As for the case with gender, this was not significantly related to either work engagement or relational psychological contracts.

Discussion

The first aim of this study was to examine a larger model of HRM practices as antecedents to work engagement. Wollard and Shuck (2011) argued that more empirical research is

needed that explores this relationship. This was done across a heterogeneous group of companies that varied in size and structure in both the public and private sector. Despite the fact that past empirical research has linked most of the HRM practices in this study to work engagement, the first three hypotheses examining the relationships between the HRM practices categorized as ability, motivation, and opportunity, were surprisingly not related to work engagement. The second aim of this study was to investigate if psychological contracts work as a mediator between HRM practices and work engagement. Past research proposed that psychological contracts mediate the relationship between HRM practices and organizational outcomes (Rousseau, 1995; Wright & Boswell, 2002) and recent empirical studies supported this notion with outcomes being employee performance (Uen et al., 2009) and recently work engagement (Bal, Kooij, et al., 2013). In this study the mediating effect was significant only for motivation enhancing HRM practices. Apparently, performance related pay and performance appraisals affects employees work engagement indirectly, through a relational psychological contract that includes both economic and socio-emotional aspects of the work context.

This research obtained, in general, few significant results. However, the data indicates that employees across all companies seem to be highly engaged at work since the mean average across companies was high. This was also the case for the HRM practices, which suggests that these are also available in the companies. This study used other scales for measuring the predictor variables than past empirical studies that linked HRM practices to work engagement. However, this it is not considered as a large methodological threat, since the scales of this study have been researched on in the past and were considered as the most frequently studied HRM practices (Boselie et al., 2005). It might be that confounding variables or rival hypothesis existed in this research. It might also be that the sample was too small for creating significance between the suggested relationships. The results in this study will be examined further throughout the discussion by examining both the research methods used in this study and in past empirical research.

Human Resource Management Practices and Work Engagement

It was argued that implementing HRM practices has several beneficial effects for organizations and employees. HRM practices categorized as ability, motivation or opportunity enhancing, were each believed to play a role in increasing employees work engagement. The non-significant results raise questions about the legitimacy of this assumption. This argument

was first driven by theoretical and empirical research from the field of HRM, where large meta-analyses managed to establish significant positive effects between different HRM practices and various organizational outcomes (Becker & Huselid, 1998; Combs et al., 2006; Huselid, 1995). Recently Jiang et al. (2012) argued that among many HRM models, the HRM practices included in the AMO framework are specifically meant to affect employee motivation and performance. The research that linked HRM practices to employee outcomes such as performance and motivation were considered relevant because intrinsic motivation (Bakker & Demerouti, 2008; Schaufeli et al., 2006), and increased performance (Christian et al., 2011) have been argued to be consequences of work engagement. The assumption that HRM practices lead to employee engagement, was also driven by a small amount of empirical research (Bhatnagar, 2012; Chaudhary et al., 2012; Hakanen et al., 2006; Koyuncu et al., 2006; Llorens et al., 2006; Rees et al., 2013; Walumbwa et al., 2010). These arguments led to the purpose and legitimacy for doing further research exploring the existence of the relationship between HRM practices and work engagement.

It was expected that ability enhancing HRM practices, such as training and development and selection and recruitment, had beneficial effects on employees work engagement. The purpose of implementing these HRM practices was to either achieve enhanced skills and knowledge by conducting training initiatives, or to find employees with specific skills and talent by using selection tools in the recruitment process (Jiang et al., 2012). Training and development was argued as the most researched HRM practice (Boselie et al., 2005), and empirical studies established significant effects to work engagement (Bal, Kooij, et al., 2013; Hakanen et al., 2006; Schaufeli et al., 2009). Despite that common methods bias might have occurred in these studies, both cross-sectional and longitudinal methods were used for establishing the effects, and sample sizes were considered sufficient. The studies were conducted in a Western research context and across industries, which are to a large degree, similar to the context of this present study. The arguments presented so far suggest that it is likely that training and development have beneficial effects on work engagement. The non-significant results in this study, might, therefore, point toward limitations such as sample size or confounding variables in this study.

Until this present study, selection and recruitment practices have not been researched together empirically with a work engagement scale. The assumption that was made earlier about this relationship, rested on HRM research that found selection and recruitment to have motivational and performance outcomes in employees (Jiang et al., 2012), and from

theoretical notions within the field of work engagement. Here, it was suggested that job demands should be fitted with employees skills and knowledge. This would then enhance work engagement by recognizing employees' talents and skills and allowing them to fully utilize these (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004). The high mean average of the ability enhancement bundle argues that selection and recruitment exist in this present context. However, we cannot know how these two HRM practices were weighted in their mean average and which of these were most likely to reach significance.

In the second hypothesis, no significant relationship was found between the motivation enhancing HRM practices performance related pay and performance appraisal, and work engagement. This might be due to shortcomings either in this present study or in past research. Initially, it was claimed that performance based pay and performance appraisal affect employee motivation (Jiang et al., 2012) and that these are among the highest motivating tools in work life. Further, empirical research established significant measures with employee motivation and performance (Jiang et al., 2012), and work engagement (Chaudhary et al., 2012; Koyuncu et al., 2006; Llorens et al., 2006). The studies of Chaudhary et al., Koyuncu et al., and Llorens et al., used either a narrow sample gathering data from one or very few organizations or a wide sample across companies. These studies were also performed on either the management level, or the employee level. Accordingly, motivation-enhancing HRM practices have shown to have beneficial effects on work engagement in several contexts and on different levels in organizations. However, these previous studies relied on self-report measures that were conducted on the same level of analysis. This opens for the possibility of a common methods bias and a reduced probability for obtaining valid results. This in turn might lead to type-1 errors. In my study this methodological issue was controlled by sampling the independent variable and dependent variable on different levels (Podsakoff et al., 2012). Despite the fact that shortcomings from common methods bias might have threatened the validity of the results between HRM practices and work engagement in past studies (Chaudhary et al., 2012; Koyuncu et al., 2006; Llorens et al., 2006), we cannot conclude if these studies made type-1 errors. It has to be considered that the respondents in these studies reported actual and correct information. It is, therefore, suggested that future research considers the shortcomings of relying on self-report, and also considers the benefits of separating the collecting data on the independent and dependent variable.

The third hypothesis assumed that opportunity enhancing HRM practices such as teamwork and participation, would increase work engagement in employees. Eventually this

relationship was deemed insignificant and neither of these could be considered factors which enhance employees' motivation and performance through work engagement as initially assumed (Bakker & Demerouti, 2008). However, the high mean average in the opportunity enhancement bundle suggests that employees are empowered and are also using teamwork in their work context. This is logical because Norwegian work-life is often characterized as having flat organizational structures and autonomous work designs. There is thus reason to believe that teamwork and participation have beneficial outcomes for employees, despite the result that was obtained in this study. The study of Schmidt et al. (2011) supports this notion, since their significant results between participation and intrinsic motivation were established in a case study with interviews from employer and employee representatives. As argued, gathering data in this manner is good for reducing common method bias and increasing internal validity. The organization that was researched in Schmidt et al.'s study was also characterized as being decentralized, which is similar to the general perception of Norwegian organizations. However, it should be commented on that case studies in general are argued to have low external validity because it is problematic to generalize from one organization to a whole population of organizations. Another consideration that is worth mentioning is that the study of Schmidt et al. (2011) measured intrinsic motivation with another scale than the work engagement scale. However, I still believe that the effect between participation and intrinsic motivation is generalizable to work engagement, because past theory has argued intrinsic motivation close to the work engagement construct (Bakker & Demerouti, 2008). The empirical studies of Bhatnagar (2012) and Rees et al. (2013) which achieved statistical significance between participation and work engagement both used cross-sectional designs with large samples and relied on self-report. Despite the likelihood for common methods bias, Rees et al. (2013) argued that they managed to control for these and thus obtained valid results. When comparing the results and research methods of my study with other empirical studies, it seems that it is still too early to draw conclusions about the effect participation and teamwork have on work engagement. A solution for gaining a better understanding about this relationship is to conduct more research in this field.

Relational psychological contracts as mediator

The fourth hypothesis addressed the second aim of this study, which argued that relational psychological contracts mediate the relationship between HRM practices and work engagement. According to Wright and Boswell (2002), HRM practices have positive effects on the reciprocal expectations and contributions between employer and employee. In this

study, only the motivation enhancement bundle established an indirect effect on work engagement through relational psychological contracts as mediator. Thus, for the organizations that participated in this study, the combination of performance related pay and performance appraisal were the most powerful motivation tool (Rynes et al., 2005), compared to the other HRM practices. The relational psychological contract was described as long-term, and to cover both the economic and socio-emotional terms held by employees (Raja et al., 2004). The significant results between the motivation enhancement practices and relational psychological contracts confirms the assumption that monetary rewards lead to perceptions of stability in employees and enhanced their motivation for long-term employment (Uen et al., 2009). These HRM practices satisfy the economic and socio-emotional expectations held by employees (Raja et al., 2004). It also seems as if trust in management increases (Rousseau, 1989) and that employees who describes their psychological contract as relational, are willing to invest much more effort in their work (Bal & Kooij, 2011). The significant effect between motivation enhancing HRM practices and psychological contracts also supports past empirical research on psychological contracts (Guest et al., 2010; Porter et al., 1998; Scheel et al., 2013; Uen et al., 2009).

There were no indirect effects between the HRM practices in the ability and opportunity bundles and work engagement, through mediation of relational psychological contracts. Thus, the rule across the organizations in this study was that employees did not experience training and development as representing social support from the management (Bal, Kooij, et al., 2013; Montes & Irving, 2008). Nor did employees experience that their socio-emotional expectations in the psychological contract were affected by the knowledge development from the training initiatives. That no mediation of relational psychological contracts was found between ability enhancement and work engagement in this study, contradicts the past research of Bal, Kooij, et al. (2013) that used a similar research design. However, one difference between Bal et al.'s study and this study is that they relied on self-report and aggregated the 2-level data from the employee data. In this study, data on the unit level was gathered by HRM representatives and thus lowered the likelihood for common methods bias. The HRM practices selection and recruitment, were also assumed to strengthen the psychological contract through employees' experience by making use of their abilities and skills. As argued earlier in the discussion, the reasons for not establishing a significant mediation might be due to shortcomings from a small sample or confounding variables. These

reasons might also count for the non-significant mediation of relational psychological contracts between participation and teamwork and work engagement.

Limitations and directions for future research

The results in this study must be considered in light of the limitations that followed the research methods that were used and the data set. This study did not rely on self-report on all the measured variables, which is good for reducing the likelihood for common methods bias. This was specifically the case for the three first hypotheses that suggested a link between HRM practices and work engagement. Here, HRM practices were measured on the unit level, while relational psychological contracts and work engagement were measured on the employee level. However, a limitation follows the research methods in the fourth hypothesis. Here, the relationship between relational psychological contracts and work engagement were measured on the employee level, and thus relied on self-report. This might have led to reduction in the statistical power and validity due to common methods bias. Thus, the significant mediation of relational psychological contract between motivation enhancing HRM practices and work engagement might be threatened by this shortcoming. A solution for this shortcoming in future research is to measure the mediator on both the employer and employee level, to estimate the common methods bias and to control for this in the regression analysis. The statistical power in this study would improve from having more organizations attending the survey. According to Maas and Hox (2005), multilevel research designs that have below 50 cases on the unit level might be threatened by biased error estimates. The statistical power in this study might therefore be reduced due to biased error estimates, since it contained only 35 cases on the unit level. Having a sample over 50 cases on the unit level would increase the external validity of the results, and the ability to generalize to a larger population. Another threat to the statistical power and a disadvantage from the sample is inconsistencies in the sample ratio between the unit and employee level. These inconsistencies varied from 1:1 to 1:227, and there were several clusters with rather low ratios. While this is a respectable sample for a master thesis, this is not the perfect sample for a scientific publication. It is therefore recommended that future research find better samples, even if this can be more time and resource demanding.

Practical implications

Since few relationships in this study reached appropriate levels of significance, there are rather few practical implications from this study. However, in the fourth hypothesis,

performance related pay and performance appraisal gave an indirect effect to work engagement, through relational psychological contracts. Thus, both monetary and socio-emotional aspects of the employment relationship are affected by these HRM practices, which further lead to work engagement in employees. Since this study used data from a heterogeneous sample of organizations, it can be argued that these HRM practices are beneficial in many kinds of companies. However, for maximizing the effect of these HRM practices, each specific context should be taken into consideration (Perry et al., 2006). Despite that this study failed to establish significance between HRM practices and work engagement, it is still recommended that HRM practices be utilized, as it is highly likely that they are beneficial for organizations.

Contribution and Conclusion

This study has contributed to research that examines the link between HRM practices and work engagement. The non-significant results that were found in the three first hypotheses adds to the understanding that more empirical research needs to be done on this relationship (Wollard & Shuck, 2011). Despite the fact that neither of the three bundles of HRM practices had a significant effect on work engagement, these HRM practices seem to be used in Norwegian work life and employees seem highly engaged in their work. Thus, it is important to continue investigating these relationships and to gain more knowledge on the role and impact HRM practices have on work engagement. This study contributed to research on HRM by providing new insight on the intervening variables (Ramsay et al., 2000) between HRM practices and work engagement. Relational psychological contracts were shown to mediate this relationship. Accordingly, performance based pay and performance feedback played a part in strengthening the reciprocal exchange agreement that employees have toward their organizations (Wright & Boswell, 2002), whereas the reciprocal exchange agreement became more relational for employees through nurturing both their economic and socio-emotional needs (Raja et al., 2004). However, this result must be seen in light of the limitations from this present study's research design. Further, this study contributed by showing that multi-level research methods, and separating the data collection on the dependent and independent variables, might reduce common methods bias. This further supports the previous suggestions to conduct more research which would take these methodological notions into consideration. More research in this field might also contribute to discovering whether ability enhancing and opportunity enhancing HRM practices have an indirect effect on work engagement, through a mediation of relational psychological contracts.

Another contribution is that this study took a macro-perspective and examined the effects bundles of HRM practices had toward employee motivation and work engagement.

Conducting more research with a better sample might give more answers to the usefulness of the macro-perspective. Finally, in order to gain more understanding to the unsolved questions that occurred in this study, more research is needed.

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