**Putting job crafting in context:**

a study on the interrelationship between individual and contextual factors in explaining job crafting.

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# PREFACE

This master thesis was written for the conclusion of my master Business Administration at the University of Twente. After many amazing years at the University of Twente I will finally conclude my student years with this last thesis. Of course, writing this thesis would not have been possible without the feedback and support of several people. Therefore, I would like to take the time to thank them.

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Enjoy reading this thesis.

Carmen Smeenk,
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# ABSTRACT

**Background -** Job crafting concerns the cognitive and physical changes made by individual employees in the task or relational boundaries of their work. Many research has been done on why job crafting takes place. However, the current image of job crafting is still limited in the sense that only a few studies have taken into account both individual factors and contextual factors in explaining job crafting behaviors. As employees do not work in isolation, these factors should be studied together to find out what their (inter)relationship is in explaining job crafting.

**Purpose -** This study investigates the interrelationship between individual and contextual factors in explaining job crafting. In this, proactive personality and role breadth self-efficacy are taken into account as individual factors. Moreover, high-involvement HR system is included as contextual factor. Accordingly, the main research question is: *In which way do individual factors (pro-active personality and role breadth self-efficacy) and HR practices (high-involvement HRM) interrelate in explaining job crafting?* Based on trait activation theory and substitution for leadership theory either a synergistic or a substitution effect between high-involvement HR and the individual factors is expected.

**Methodology -** Data was gathered by means of a digital survey that was distributed via snowball sampling. Respondents (*N* = 191) were employees working in an organization, who answered questions on proactive personality, role breadth self-efficacy, job crafting behavior, and the experienced high-involvement HR.

**Findings -** Direct effects of proactive personality, RBSE and high-involvement HR on seeking job resources and challenges were found. Moreover, direct effects of individual HR practices on job crafting were found. In particular, a direct positive effect of reward on seeking job resources and challenges was found and a direct negative effect of power on reducing job demands. However, no interrelationship between the individual and contextual factors in the form of a synergy, following trait activation theory, or a substitution effect, following substitute for leadership theory, was found.

**Implications –** Although no interrelationship was found, the results of this study provide interesting insights. For example, two different types of job crafting were found which implies that job crafting is not about balancing different types of crafting, but that there are actually two different forms of job crafting behavior an employee can enact. Moreover, there was found that individual HR practices had a direct influence on job crafting. Contrary to previous research, these results imply that not bundles of HR, but individual practices can have a direct effect on employee behavior. With regard to practice, implications are that organizations should hire proactive employees, enhance employees' self-efficacy, empower them and reward them. Overall, these and other findings provide several directions for future research.

*Keywords:* Job crafting; High-involvement HR system; Proactive personality; Role breadth self-efficacy; Trait activation theory; Substitute for leadership theory.

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# INTRODUCTION

The most commonly accepted reason for people to work is to earn a living. However, it appears that people also work for other purposes such as contributing to something, building relationships, making an impact and experiencing a sense of meaningfulness (Rodell, 2013; Steger, Dik, & Duffy, 2012). Accordingly, they often change components in their job so it better fits their preferences and abilities (Tims & Bakker, 2010). Despite the occurrence of this employee-initiated job design, most research tended to focus on job design as a top-down approach (Tims & Bakker, 2010). Until, 30 years ago, Kulik, Oldham, & Hackman (1987) suggested that employees redesign their jobs at their own initiative. This phenomenon was later defined in research as job crafting: "*the physical and cognitive changes made by individuals in the relational or task boundaries of their work*" (Wrzesniewski & Dutton, 2001, p.179). Job crafting is a form of proactive behavior to create a better person-job fit (Lu, Wang, Lu, Du, & Bakker, 2014) by changing work tasks and relationships, or by psychologically changing perceptions and thoughts about work (Berg, Dutton, & Wrzesniewski, 2013; Wrzesniewski & Dutton, 2001). Consequently, this has positive outcomes for the employee such as improved job satisfaction and well-being (Slemp & Vella-Brodrick, 2014). Furthermore, the organization also benefits, as job crafting positively relates to task performance, organizational commitment and work engagement (Bakker, Tims, & Derks, 2012; Brenninkmeijer & Hekkert-Koning, 2015; Petrou, Demerouti, & Schaufeli, 2015; Slemp & Vella-Brodrick, 2014).

Although the positive outcomes of job crafting for both employees and organizations are clear, there are limited studies focused on stimulating job crafting behavior (Wrzesniewski & Dutton, 2001). In particular, there is a paucity of research on stimulating job crafting behavior that also takes the individual character of the employee into account. As job crafting concerns self-initiated behavior, a key focus in research has been what individual factors make that an employee is motivated to craft. For example, studies focused on how needs such as competence and autonomy influence job crafting behavior (Slemp & Vella-Brodrick, 2014; Wrzesniewski & Dutton, 2001). Also, research has focused on personal traits such as proactive personality (Bakker et al., 2012) and self-efficacy (Axtell & Parker, 2003; Bakker, Emmerik, & Euwema, 2006; Tims, Bakker, & Derks, 2014), that are positively related to crafting behaviors. Moreover, some studies have taken contextual factors into account and found that supportive supervision (Ko, 2011) and leader-member exchange (van den Heuvel, Demerouti, & Peeters, 2015) have a positive relationship with job crafting behavior. However, behavior is not dependent on either individual or contextual factors, but on both (Barrick, Parks, & Mount, 2005). Individual factors influence employee behavior, whereas situational factors provide the employees with messages on what behaviors are appropriate and/or expected (Salancik & Pfeffer, 1978). Hence, despite the extensive research on job crafting, the current image of job crafting is limited in the sense that there are hardly any studies focused on the combined influence of individual and contextual factors on job crafting behaviors. As employees do not work in isolation, it should thus be studied if and how these factors interrelate with each other in explaining job crafting. Therefore, this will be in focus of this study.

For this, proactive personality and role breadth self-efficacy (RBSE) are taken into account as individual factors. Moreover, the contextual factor Human Resource Management (HRM) is a focus of

this study, in particular the high-involvement HR system. Individually, both these individual and contextual factors can have a positive influence on job crafting behavior (Bakker et al., 2012; Tims et al., 2014). However, it is not clear if and how this influence changes when the other is also taken into account. There could be no interrelationship, meaning that they complement each other, or in the case of an interrelationship they could either have a substitutive or a synergistic relationship. Focusing on a synergistic relationship, trait activation theory holds that a personality trait is expressed as a response to a trait-relevant situational cue, where context activates the behavior that belongs to the personal trait (Tett & Guterman, 2000). For example, HR activities activate proactivity, which leads to job crafting behavior. Following this, a synergistic interaction between individual and contextual factors is expected. As the perceived high-involvement HR activities increase, the effect of proactive personality on job crafting increases as well, such that the total effect of high-involvement HR system and proactive personality on job crafting is greater than the sum of their individual effects would be. However, it could also be that individual factors substitute high-involvement HR activities in explaining job crafting. In their substitutes for leadership theory Kerr & Jermier (1978) propose that in some cases leadership has no or little added value. For example, employees that do already manage themselves do not benefit from leadership. In regard to this study it could then be that employees scoring high on proactive personality and RBSE may already be so inclined to enact job crafting behavior, that high-involvement HR activities have no or little added value. However, for employees scoring low on these factors it could still have an effect. By drawing the following question this research tests both theories and thereby tries to fill the knowledge gap on whether individual and contextual factors have a synergistic or substitutive relationship in explaining job crafting:

*In which way do individual factors (pro-active personality and role breadth self-efficacy) and HR practices (high-involvement HRM) interrelate in explaining job crafting?*

By answering this research question, this study adds to existing job crafting studies as it provides insight in the interrelationship between individual and contextual factors in explaining job crafting. In particular, in the interrelationship between the individual factors proactive personality and RBSE, and the contextual factor high-involvement HR. In this, the effect of high-involvement HR on job crafting was not studied before. Moreover, by placing job crafting behavior in context, the self-initiated component of job crafting is tested. With this, it is an example for future researchers to further explore the external motivators of job crafting and their interrelationship with individual factors. For practice, Berg, Wrzesniewski, & Dutton (2010) state that job crafting matters to organizations as it enables employees to use their talents and proactive behavior to contribute to organizational objectives. Moreover, they emphasize that there might be more that organizations can do to facilitate it. Results of this study could give more insights into how to facilitate job crafting and which employees should be stimulated. For example, if proactive employees should still be stimulated by high-involvement HR practices given they have a synergistic relationship in explaining job crafting. Alternatively, if already proactive employees do not need extra incentives for job crafting, as individual factors substitute the practices in explaining job crafting. Hence, this study has a practical contribution for all organizations interested in facilitating and guiding job crafting.

# THEORETICAL FRAMEWORK

### JOB CRAFTING

The boundaries of one's job are not entirely driven by the job requirements. Employees have some scope to execute and characterize their job as they can engage in job crafting (Wrzesniewski & Dutton, 2001). Job crafting is an activity and those who initiate the changes are called job crafters. These crafters modify relational, physical and cognitive boundaries of their work activities to ensure that these work characteristics align better with their personal needs and talents (Grant & Parker, 2009; Wrzesniewski & Dutton, 2001). It is a spontaneous activity to satisfy one's needs and follow one's preferences (Kira, Eijnatten, & Balkin, 2010). Because job crafting behavior is focused towards changing the work (environment) proactively, instead of the external environment, the organization, or other people, it is labelled as proactive person-environment-fit behavior (Grant & Parker, 2009). Wrzesniewski and Duttons' (2001) definition of job crafting only includes changes in specific work tasks, cognitions about work and relationship at work. However, other studies found job crafting behaviors in the form of searching for challenges (Petrou et al., 2015) and self-initiated skill development (Lyons, 2008). Therefore, Tims, Bakker and Derks (2012) argue that job crafting should be more broadly defined and should include all relevant work characteristics that employees might proactively change. Therefore, they proposed to conceptualize job crafting in line with the job demands-resources (JD-R) model, as discussed below.

### THE JD-R MODEL

The JD-R model explains simultaneously the ill-health and well-being of employees, and its related antecedents (Schaufeli & Bakker, 2004). The starting point of the model is the assumption that, no matter what job one has, job characteristics can be categorized into two groups: job resources and job demands (Bakker & Demerouti, 2007).

Job resources are the psychological, physical, organizational, and socials aspects of the work context that (1) help in achieving work-related goals, (2) reduce the effect of job demands, and/or (3) stimulate learning and personal development (Bakker & Demerouti, 2007, 2008, 2014; Schaufeli & Bakker, 2004). There are several job characteristics that are considered resources, such as social support, learning opportunities, job control and performance feedback (Bakker & Demerouti, 2007, 2008; Bakker, Schaufeli, Leiter, & Taris, 2008). They motivate employees and can induce positive behaviors, attitudes and well-being (Bakker & Demerouti, 2007), leading to organizational commitment, extra role performance and work engagement (Bakker et al., 2008). Based on the difference in type of job resource Tims, Bakker and Derks (2012) subdivide job resources into: structural and social job resources. **Structural job resources** are all resources concerned with job design, including responsibility and knowledge about the job (Tims et al., 2012). For example, opportunity for development in the form of trainings that are offered by an organization is a job resource that enhances an employee and stimulates development (Bakker & Demerouti, 2007). Other examples include job control, resources variety and autonomy (Tims et al., 2012). **Social job resources** are the resources that impact all social aspects of the job, such as levels of interaction

(Tims et al., 2012). These resources include supervisory coaching and feedback regarding the social aspects and social support for the sufficient levels of interaction (Tims et al., 2012).

Job demands are job aspects that require sustained psychological and/or physical effort or skills from an employee. Therefore they are associated with certain costs, such as cynicism and exhaustion (Bakker & Demerouti, 2007). Similar to job resources, there is a variety of demanding job characteristics, including job insecurity, role ambiguity, workload and time pressure (Bakker & Demerouti, 2007). Although most job demands can be appraised as stressful, some job demands are positively related work engagement (Crawford, Lepine, & Rich, 2010). Therefore job demands can be subdivided into two types of demands: challenging job demands and hindering job demands (Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). **Challenging demands** are demands that are both energy depleting and stimulating (Van den Broeck et al., 2010). These are the job demands that offer the potential for personal growth, mastery, or future gains. Employees tend to see them as an opportunity to learn, accomplish, and demonstrate competences that ten to get rewarded (Crawford et al., 2010).  For example, a high level of job responsibility can be stressful, but also challenging for an employee. Moreover, time pressure is seen as a challenging demand for some people, as they need to feel that pressure in order perform well. Other examples include workload and cognitive demands (Van den Broeck et al., 2010). **Hindering demands** are the demands as mentioned in the JD-R model (Bakker & Demerouti, 2007): obstacles that drain energy from the employee. An example is working in an organization where interactions with others are emotionally demanding (Bakker & Demerouti, 2007). Other examples include job insecurity, interpersonal conflicts, constraints and role ambiguity.

DIFFERENT FORMS OF JOB CRAFTING

Following the JD-R model, job crafting concerns the employee balancing the job resources and demands with the personal needs and abilities they have (Tims et al., 2012). In line with the model, employees can craft the level of demands, resources, or both. By framing job crafting in this manner it is possible to capture several aspects (e.g. job characteristics) that employees may craft in their jobs. Following this, Tims et al. (2012) show that one can craft his or her job in four different forms:

An employee **increasing structural job resources** alters the job design aspects of a job, such as autonomy and variety of resources (Tims et al., 2012). By increasing structural resources he or she tries to gain more responsibility and/or knowledge about the job. Overall, they try to create a more challenging work environment (Bakker et al., 2012; Tims, Bakker, & Derks, 2013). Gaining more responsibility can be achieved by trying to increase a variety of resources and autonomy, while gaining more knowledge is achieved by focusing more on development of oneself (Tims et al., 2012). An example of this is an employee pro-actively signing-up for a training that is not mandatory. By doing this, one can develop oneself into a certain direction, setting out an individual career path. Another example is trying to gain more autonomy in executing one's tasks.

By **increasing social job resources** as a form of job crafting an employee changes the aspects of the job that involve the relationships one has at work (Tims et al., 2012). Again it is focused on creating a more challenging work environment (Bakker et al., 2012; Tims, Bakker, & Derks, 2013), in this case by influencing the social level of the job, hence, the level of interaction on the job. That is,

interactions with colleagues and/or supervisor can be expanded or kept to a minimum, depending on the preferences of the job crafter. For example an employee can ask a colleague for feedback or advise, but he or she can also ask the supervisor for coaching or his/her opinion with regard to the functioning of the employee (Tims et al., 2012).

Since hindering job demands are stressful and hinder optimal functioning, **decreasing hindering job demands** is also a form of job crafting (Tims et al., 2012). When a hindering job demand (e.g. mentally intense work) becomes overwhelming a job crafting employee proactively lowers this job demand (e.g. giving the mentally intense task to a colleague). Employees have to deal with emotional demands (concerning people) and mental demands (concerning knowledge) in their work. In this, decreasing emotional demands can for example be done by minimizing contact with people who have unrealistic expectations. Moreover, decreasing mental demands can also be done by managing work in such a way that one does not have to concentrate on something for too long.

Employees **increasing challenging job demands** craft their job by proactively seeking for tasks that require effort, but also have positive effects, such as personal gains and growth (Tims et al., 2012). Challenging job demands can stimulate employees to attain more difficult goals and to develop their skills and knowledge by creating a more challenging work environment (Bakker et al., 2012; Tims, Bakker, & Derks, 2013), thereby keeping their job challenging and stimulating (LePine, Podsakoff, & Lepine, 2005). By actively pursuing new opportunities (e.g. setting up a new project) and being open to new developments and changes (e.g. being the first to work with a new system) an employee increases challenging job demands such as workload, time pressure, and cognitive demands (Tims et al., 2012). These demands do require effort, however as, for example, working with a new system does make that an employee develops specific skills that he or she wants to develop, it contributes to his or her personal growth. Another example of this is an employee that sees that some colleagues have started a new project. Although taking part in a new project requires effort and increases the workload, it also has a positive effect as an employee gains more knowledge and skills. As the employee wants to acquire more knowledge and skills he or she takes on the project, despite the extra workload.

When a job does not meet employees' needs or skills they will be motivated to change elements of it, to make the job 'fit' (Wrzesniewski & Dutton, 2001). Putting this in terms of job demands and resources: in case employees experience that their job resources and job demands are not balanced, they may be motivated to reduce this misfit by using the four job crafting strategies. In their research, Tims et al. (2012) found a complementary relationship between the four dimensions, showing that the different dimensions have an influence on each other. For example, when one wants to increase challenging job demands, he needs to possess certain job resources that support him in being able to meet the job demands. Hence, the employee will also increase job resources. In turn, these resources have an influence on hindering demands as resources may protect employees against high job demands (Bakker, Demerouti, & Schaufeli, 2003; Schaufeli & Bakker, 2004): increasing job resources such as knowledge and skills make an employee more capable to handle job demands by decreasing them. Accordingly, there can be concluded that by means of job crafting one searches for and expands his or her pool of resources. Subsequently, the attained resources buffer high job demands

and lead to higher levels of well-being. Overall, this suggest that, in order to constantly balance job resources and demands and thereby successfully craft a job, all forms of job crafting are needed. As this research focuses on measuring overall job crafting behavior, it is chosen to measure this concept by taking the four strategies together.

## INDIVIDUAL FACTORS

According to job crafting theory, employees craft their job to fulfill specific personal needs, such as feeling connected, wanting to cope at work, and having control (Berg et al., 2013; Wrzesniewski & Dutton, 2001). It is thought that these personal needs motivate an employee to alter facets of work, such as relationships and tasks, so needs are met. Several studies show that job crafting is personally driven and self-initiated behavior (Berg et al., 2010; Petrou et al., 2015). This behavior is determined by situational factors and largely by the individual enacting it (Barrick et al., 2005). With regard to job crafting different individual factors as antecedents of job crafting have been studied. For example, studies show that proactive personality, readiness to change, self-efficacy and career orientation positively relate to job crafting (Akkermans, Schaufeli, Brenninkmeijer, & Blonk, 2013; Bakker et al., 2012; Brenninkmeijer & Hekkert-Koning, 2015; Petrou et al., 2015; Tims et al., 2014). These studies emphasize the importance of individual factors in understanding job crafting. Hence, for understanding the theoretical underpinnings of job crafting, the qualities of the individual job crafter in explaining job crafting will be taken into account.

Focusing on individual traits, malleable and more stable states can be distinguished (Markus & Kunda, 1986; Robinson, 2009). A stable trait does not change when the environment changes and protects an individual against change, while a malleable trait varies from one time to another (Markus & Kunda, 1986). As these traits might have a different relationship with job crafting behavior, both a malleable and a more stable state will be taken into account for this study: role breadth self-efficacy and proactive personality. These two states are related, but nevertheless distinct from each other (Bateman & Crant, 1993). Whereas proactive personality is a personal disposition, a relatively stable tendency that can effect environmental change, RBSE is expected to fluctuate in response to environmental changes (Parker, 1998). Employees with a proactive personality challenge *"the status quo rather than passively adapting to present conditions"* (Crant, 2000, p. 436). They take initiative in changing the current situation. On the other hand, self-efficacy concerns one's judgment about being capable to do something (Bandura, 1997), which is influenced by the context. This feeling can be increased through interventions, for example a training (Wood & Bandura, 1989). Overall this makes that although the RBSE of an employee partly reflect his or her personality (same as proactivity), it will also be affected by organizational experiences (Parker, 1998). Both individual factors will be described in detail below.

### ROLE BREADTH SELF-EFFICACY

Self-efficacy concerns people's beliefs in their own capabilities to execute expected and desired behaviors, and to successfully impact the environment that they are in (Bandura, 1977, 1997). Bandura (1997) suggests that self-efficacy is related to performance as it influences both the activities

that people do and how much effort they put into them. This efficacy influences work behavior as, in comparison with low self-efficacious people, individuals with higher self-efficacy show more effort, have greater focus, strive for reaching more difficult goals and commit to them (Bandura, 1977). In addition, it is positively associated with work behaviors such as taking charge, proactive behavior and personal initiative (Crant, 2000; Elizabeth Wolfe Morrison & Phelps, 1999). However, beliefs about the capabilities of oneself may change from one situation and action to another as *"one cannot be all things, which would require mastery of every realm of human life"* (Bandura, 2006, p. 307). For example, a teacher may have a high sense of *self-efficacy to promote mathematics,* but a low sense of *self-efficacy to promote reading.* In other words, self-efficacy is not a global trait but a set of beliefs linked to distinct manner of functioning (Bandura, 2006). Therefore, different specific self-efficacy concepts can be distinguished (Bandura, 2006). For this study, work related self-efficacy is of interest as job crafting is work related proactive behavior. Role breadth self-efficacy is such a work related form as it "*concerns the extent to which people feel confident that they are able to carry out a broader and more proactive role, beyond traditional prescribed technical requirements*" (Parker, 1998, p. 835). This form of self-efficacy is concerned with employees being proactive and doing things at their own initiative, thereby being a highly relevant concept for job crafting.

Hence, before enacting proactive behaviors, which could include job crafting, employees asses their own capabilities in successfully completing the task (Morrison & Phelps, 1999). Moreover, Vough and Parker (2008) mention that increasing self-efficacy may lead to employees changing characteristics of their job. In line with this, Tims et al. (2014) found positive associations between self-efficacy and job crafting behavior. Their research showed that more self-efficacious employees feel competent enough to search for more variety in their job and learn new things, by for example increasing structural and social job resources (Tims et al., 2014). It can then also be expected that even more self-efficacious employees want to challenge themselves, leading to increasing challenging demands. In line with this, the following is proposed:

*Hypothesis 1*: Role breadth self-efficacy is positively related to job crafting.


**PROACTIVE PERSONALITY**

In a dynamic environment, many organizations see proactive employees as essential for remaining competitive (Ashford, Blatt, & Walle, 2003; Crant, 2000; Frese & Fay, 2001). Proactive personality can be defined as *"the relatively stable tendency to effect environmental change"* (Bateman & Crant, 1993, p. 103). This personality makes that an individual has the tendency to engage in actual proactive behavior (Bateman & Crant, 1993) and a proactive employee actively influences his or her (work) environment by showing self-initiative and stimulating change (Bateman & Crant, 1993; Fuller & Marler, 2009). They identify an opportunity, take action, and persist until it leads to meaningful change (Crant & Michael, 1995). Overall, they are considered 'go getters' who always look for ways to take (anticipatory) actions with the intent to positively impact their environment, themselves, or both (Grant & Ashford, 2008). Such proactive actions include building networks (Ashford & Black, 1996), demonstrating initiative (Frese & Fay, 2001), expressing voice (Van Dyne & LePine, 1998), taking

career initiative (Fuller & Marler, 2009), seeking information (Morrison, 1993), seeking feedback (Ashford, Blatt, & Walle, 2003), and redefining work (Bakker et al., 2012; Wrzesniewski & Dutton, 2001). All are associated with several positive outcomes.

Crant (2000) argues that proactive employees often create opportunities and favorable conditions for themselves. Therefore Bakker et al. (2012) focused on the link between proactive personality and job crafting and showed that employees with a proactive personality are most inclined to change the work environment by mobilizing job demands and job resources: job crafting. In line with Crant (2000), they found that proactivity positively influences employee performance. Proactive employees increase structural and social job resources as they look for ways to develop themselves and ask for feedback with their colleagues or supervisor. In addition, proactive employees are inclined to ask for autonomy, which is an example of increasing challenging demands. Overall, they align their job resources and demands with their own abilities and needs, thereby changing their work environment, indirectly leading to increased performance (Bakker et al., 2012). In line with these findings we propose the following hypothesis:

*Hypothesis 2:* Proactive personality is positively related to job crafting.

**CONTEXTUAL FACTORS**

Individual factors influence job crafting behavior, however, as said, an employee does not work in isolation. Their behavior can be influenced by factors such as leadership (Leana, Appelbaum, & Shevchuk, 2009), organizational culture, human resource management (HRM) (Wrzesniewski & Dutton, 2001) and colleagues (Tims, Bakker, Derks, & van Rhenen, 2013). Although all these factors are of influence, the focus of this study will be on HRM. Reason for this is that both job crafting and HRM are concerned with job design. While job crafting is a self-initiated form of job design (Wrzesniewski & Dutton, 2001), the organization itself actually designs the jobs within the organization, by implementing HR practices. By studying both job crafting and HRM, it will become clear how the job design initiated by the organization influences individual job design. In general, HRM is concerned with the selections organizations make from the multitude of structures, policies and practices for managing employees (Boxall & Purcell, 2003). Focusing on the strategic value, Boselie, Dietz and Boon (2005) conceptualize HRM as carefully designed combinations of HR practices for improving organizational effectiveness and, consequently, increasing performance outcomes. Hence, by deploying HR activities an organization wants to achieve its set organizational goals (Wright & McMahan, 1992).

**HRM**

In line with Boselie et al. (2005), who mention combinations of HR practices, strategic HRM researchers emphasize that we should not focus on individual, but on bundles of HR practices in analyzing the impact of HRM on organizational and individual performance (Jiang, Lepak, Han, et al., 2012; MacDuffie, 1995). This is because HR practices do not function in isolation, but are interrelated, and employees often experience various practices simultaneously (Jiang, Lepak, Han, et al., 2012).

Therefore the term HR systems was introduced: a dynamic bundle of HR practices, designed to achieve organizational goals (Lado & Wilson, 1994; Lepak, Liao, Chung, & Harden, 2006; Wright & McMahan, 1992).

HR systems are "*patterns of planned human resource activities intended to enable an organization to achieve its goals*" (Wright & McMahan, 1992, p. 298). As organizations differ and therefore (might) have different goals there are also different HR systems. Previous studies identified several compositions of HR systems, such as high involvement HR systems (Guthrie, 2001), high commitment HR systems (Arthur, 1994), high performance work systems (HPWS) (Becker & Huselid, 1998), but also more control oriented systems (Jiang, Lepak, Hu, & Baer, 2012). In this, a system such as high commitment, is focused on creating a connection between the employee and organization (Lepak et al., 2006), while the control system is focused on employees complying to the regulations (Jiang, Lepak, Han, et al., 2012). As high-involvement HR is focused on organizational involvement, its practices are, in line with this goal, focused on involving employees in decision making (Wood, Van Veldhoven, Croon, & de Menezes, 2012). As job crafting can be considered to be a form of involvement, initiated by the employees, it is an interesting focus. First, because employees involve themselves in their own job design by crafting their job. In addition, in different forms of job crafting employees involve themselves in projects (increasing challenging demands) or involve colleagues by asking them for feedback (increasing social resources) (Tims et al., 2012). Because of this it seems likely that there is a link between HIM and job crafting. In addition, this system is focused on flexibility and proactivity (Parker, Wall, & Cordery, 2001; Wood et al., 2012), which could create chances for job crafting. Therefore, this study focuses on high-involvement HR systems.

### HIGH-INVOLVEMENT HR SYSTEMS

A high-involvement HR system consists of a specific set of HR practices focused on involving employees by giving them the opportunity to effectively participate in work-related decision making (Boxall & Purcell, 2011; Lawler, 1996; Vandenberg, Richardson & Eastman, 1999). Characteristics of the system are that (a) employees have the power to act and make decisions about all work aspects; (b) information about business results, processes, events and more is shared with all employees throughout the organization; (c) employees get rewarded based on contribution, growth in capability and business results; and (d) all employees get trained on knowledge of the organization, the total work system and the work. (Arthur, 1994; Butts, Vandenberg, DeJoy, Schaffer, & Wilson, 2009; Guthrie, 2001; Lawler, 1986, 1992). Hence, high involvement management can be defined in terms of four attributes: power, information, rewards, and knowledge (PIRK) (Lawler, 1986, 1992).

**Power** concerns the use of practices that provide the employee a degree of control regarding the decisions affecting their work (Lawler, 1986, 1992). These practices make that employees have a feeling of say in or control over decisions that affect their work (Riordan, Vandenberg, & Richardson, 2005). An example of such a practice is participative decision making (Prieto & Pilar Pérez Santana, 2012). For example, in the form of a manager facilitating the conversation with its employees, encouraging them to share their opinions and ideas, after which all the available information is synthesized into the best decision. Following this, all employees are included and a democratic

decision is made. Other examples of high-involvement work practices are employee involvement groups, employee problem-solving groups, self-directed work teams, and product related suggestions indicated and impleted by the employees (MacDuffie, 1995; Osterman, 1994; Pil & MacDuffie, 1996).

**Information sharing** is occurring in an organization when all information about the organization, its plans and its goals, is shared with the employees (Riordan et al., 2005). This is necessary as having all right information enables employees to make informed quality decisions about their work (Lawler, 1992; Oldham & Hackman, 1980). High-involvement practices covering information sharing thus entail communication streams updating an employee on the organization, for example its goals and the policies (Lawler, 1986, 1992). Examples of information sharing practices are the company communicating the goals, objectives, policies and procedures of the company; having effective communication channels in place between employees and top management; and practices enabling timely and complete information sharing within teams (Bowen & Lawler, 1992; Lawler, 1986). Overall, these practices make that an employee knows all the ins and outs about the company, its goals and plans, but also about the job and team/department. Subsequently this enables an employee to effectively participate in decision making as he or she can make informed decisions.

**Reward** practices are focused on the reward systems linking organizational, group and individual performance to promotions, compensation and recognition (Lawler, 1986, 1992). High-involvement HR organizations stand for the idea of fairness in the organization, meaning the people are rewarded based on their attitude and functioning (Prieto & Pilar Pérez Santana, 2012). After employees recognize that their rewards depend on their behavior, they will be more likely to behave in line with the organizational goals (Wright & McMahan, 1992). Therefore, the rewarding and appraisal systems should be based on the results of work that is in line with these goals (Riordan et al., 2005). In addition, with regard to performance management, developmental, instead of evaluative, criteria and process are of importance (Prieto & Pilar Pérez Santana, 2012). Examples of practices include payment systems that reflect employees' contribution, recognition for doing a good job (both in the form or high performance appraisal ratings and receiving a raise in pay) and performance appraisals based on indiviual behaviors and oriented toward progress and development (Prieto & Pilar Pérez Santana, 2012; Riordan et al., 2005).

Last, **knowledge** practices are there to support the skill development of the employee. Training is of importance to develop more knowlege (Guthrie, 2001), which is necessary for effective performance (Lawler, 1992). In addition, training learns employees to select a certain course of action and makes them understand why that particular course of action is desirable over another one (Riordan et al., 2005). Hence, by this employees will be more effective in participating in work-related decision making. Knowledge practices in a high-involvement system are focused on ongoing training and development. An example is a specialized training (Guthrie, 2001), through which an employee gains more knowledge about a specfic topic. Other examples of HR knowledge practices are job rotation, cross-training, and training focused on teamwork skills and team (Guthrie, 2001; MacDuffie, 1995; Pil & MacDuffie, 1996).

Overall, high-involvement is an employee-centered HR system, making employees more pivotal: as information and decision-power is dispersed throughout the whole organization, employees

at all levels in the organization can take on a greater responsibility (Guthrie, 2001). It enables employees to acquire information and skills, which increases contentment and satisfaction through its impact on the employee's self-esteem, job variety and the ability to be proactive and to learn (Wood & De Menezes, 2011). It has several positive outcomes for both organizations and individuals, such as more organizational effectiveness, higher productivity and more psychological empowerment (Butts et al., 2009; Messersmith, Patel, Lepak, & Gould-Williams, 2011). According to Spreitzer (2008) an empowered employee has the intention to change the work context to further enhance this empowerment. Moreover, an empowered employee will show more proactive behaviors, implying that it might lead to job crafting (Tims & Bakker, 2010). For increasing challenging demands it can, for example, be argued that high-involvement practices offer more of them: when employees are involved in making decisions that were previously made by their managers, this can be appraised as a challenging demand (Macky & Boxall, 2008). In addition, knowledge practices are considered with training and development and will probably be positively related to increasing structural job resources, whereas power practices such as employee problem-solving groups and practices that give an employee more autonomy will probably lead to increasing social job resources and challenging job demands. Last, giving employees all information and opportunities to change things also enables them to decrease hindering demands when needed. Therefore, the following is expected:

*Hypothesis 3:* A high-involvement HR system is positively related to job crafting.

**INDIVIDUAL AND CONTEXTUAL FACTORS EXPLAINING JOB CRAFTING**

The hypotheses drawn show that a positive relationship between both the individual and contextual factors and job crafting is expected. However, it could be that the influence of these factors change when taking the other into account. On the one hand, it could be that both factors stimulate each other and that there is a synergistic relationship. On the other hand, the two factors could also substitute each other: as an employee is already very proactive he or she will either way craft the job, stimulating HR practices do not influence this.

Following trait activation theory, the expectation would be that there is a synergistic relationship between the individual factors and contextual factor in explaining job crafting. This theory states that behavior that belongs to a certain personal trait is activated (Tett & Guterman, 2000). Translating it to this study, this means that independently, both RBSE or proactive personality will lead to job crafting, but when the context (in this case the high-involvement HRM) provides certain triggers, this relationship will increase. On the contrary, following Kerr and Jermiers (1978) substitute for leadership theory would make that one would expect a substitutive relationship. As employees will be so proactive or self-efficacious, their relationship with job crafting is not influenced by the HR practices in place. For examples, encouraging training practices are substituted by the intrinsic learning motivation of the employee. Both theories will be tested.

In 1991, Barrick and Mount made the remark that people with the same personal traits show different behaviors in varying contexts. Their conclusion was that context plays a significant role in the differences in behaviors of people, across different situations (Barrick & Mount, 1991). Tett and Guterman (2000) focused on the interaction between a person and the situation and explained one's behavior as responses to trait-relevant cues found in these situations: the trait activation theory. The theory holds that "*personality traits are expressed as responses to trait relevant situational cues"* (Tett & Burnett, 2003, p. 502). Following this approach, personality traits are framed as latent potentials within a person that can be triggered by context cues that are relevant to certain characteristics of those traits (Tett & Burnett, 2003). This subsequently leads to actions. The theory suggests that situation characteristics moderate the relationship between personality traits and actual behavior. For example, according to trait activation theory *"aggressive behavior is generally expected as a response to aggression-inducing stimuli, but people high in aggression will show a quicker or heightened response or greater sensitivity to weaker cues"* (Tett & Guterman, 200. p. 398). Overall, the trait activation theory recognizes that main effects of situations and traits on behavior exist, but much of it is explained by the interaction (Tett & Burnett, 2003). As proactively personality and RBSE both are a personal trait, a difference in job crafting behavior could also be declared by trait activation theory (Tett & Burnett, 2003; Tett & Guterman, 2000). Translating it to the link between either proactive personality or RBSE and job crafting, there has to be an environmental factor that triggers job crafting behavior. This trigger will activate the behavior that belongs to the RBSE and/or proactive personality trait one holds. An important trigger in this case could be the high-involvement HR system.

*Role breadth self-efficacy* is about the confidence employees feel in carrying out a more proactive role at work that goes beyond the traditional requirements described by the organization (Parker, 1998). In addition, employees with a *proactive personality* see an opportunity, take action, and persist until it leads to meaningful change (Crant & Michael, 1995). Studies show that high-involvement practices are likely to trigger both concepts. For example, RBSE is a rather flexible trait and is partly shaped by organizational experiences, meaning that HR practices shape the development of RBSE (Parker, 1998). Fuller, Kester and Cox (2010) argue in their research that giving employees power, in the form of high job autonomy, triggers proactive behavior. For example, less supervision makes that employees high in proactive personality respond to things themselves by making changes to work procedures and processes (Fuller et al., 2010). In their research this was confirmed: employees with a high level of proactive personality performed better as job autonomy increased, while there was no effect of job autonomy with employees with low levels of proactive personality (Fuller et al., 2010). In addition, providing employees power in the form of access to resources can enhance RBSE. Access to it often means that there are more (project) teams with a budget, making it easier for everybody to 'tap' locally the money they need, to get things done (Gist & Mitchell, 1992). This enhances a sense of self-efficacy as it makes employees feel more in control over environmental contingencies (Bowen & Lawler, 1992; Gist & Mitchell, 1992). Access to information also has a positive influence on proactivity (Oldham & Hackman, 1980). According to Oldham and Hackman (1980), information supports autonomous employees in enacting their work as

it is clear for them what their role is. In line with this, Lawler (1992) suggests that a clear vision of one's role within an organization makes it easier to understand organizational priorities and therefore what proactive behavior is needed. Moreover, with regard to RBSE Bowen and Lawler (1992) state that giving employees access to organizational information allows them to develop frames of reference for understanding their own role in the organization and to see the 'bigger picture'. By understanding the goals of their own work units and how their work contributes, employees feel empowered. Building on this, Gist and Mitchell (1992) suggest that access to information facilitates self-efficacy. Giving them information for getting the 'bigger picture' makes that they know what they are doing and therefore feel more self-efficacious.

Overall, following trait activation theory, it seems that working in an organization with a high-involvement HR system triggers employees with a proactive personality and/or high RBSE to enact such behavior, for example job crafting behavior. Therefore, it is expected that these factors interrelate in explaining job crafting. Hence, a proactive employee is already tempted to craft his or her job, however, when working in a work environment with high-involvement practices in place, such as sharing information and job autonomy, the chance is even bigger that he or she will show job crafting behavior. Moreover, an employee scoring low on the traits will enact less or no job crafting behaviors, but will show some when working in a high-involvement HR system. Accordingly, the following is proposed:

*Hypothesis 4a*: High involvement HRM systems moderate the relationship between proactive personality and job crafting, such that the relationship between proactive personality and job crafting is stronger when employees perceive the high-involvement HRM systems as high than when employees perceive it as low.

*Hypothesis 4b*: High involvement HRM systems moderate the relationship between role breadth self-efficacy and job crafting, such that the relationship between role breadth self-efficacy and job crafting is stronger when employees perceive the high-involvement HRM systems as high than when employees perceive it as low.

Based on these hypotheses, a research model can be drawn. Figure 1 shows this research model.
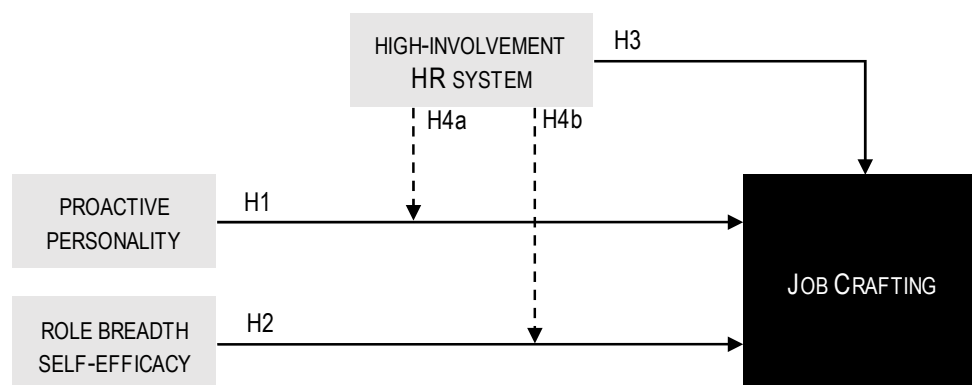


*Figure 1.* Research model based on trait activation theory.

## SUBSTITUTION FOR LEADERSHIP

In 1978, Kerr and Jermier proposed the theory on substitutes for leadership. In it, they state that there are several task, individual, and organizational variables that may substitute leadership, thereby negating the positive or negative effect a formal leader may have on his employees (Kerr & Jermier, 1978; Podsakoff & MacKenzie, 1997). In other words, these factors may function in place of leadership. Research shows that such characteristics make a unique contribution to the prediction of certain outcomes, beyond leadership behaviors such as contingent reward behavior, supportiveness and assignment of work (Podsakoff, 1996). In the context of this study it is about the individual factors that may substitute high-involvement HR practices in encouraging job crafting behavior. That is, employees scoring high on RBSE and/or proactive personality will craft their job, regardless of the environment being a high-involvement HR system or any other HR system. Following substitute for leadership theory, the relationship between the individual factors and job crafting may differ, depending on the degree of proactive personality and RBSE. Below, the theory will be applied for both factors.

Bateman and Crant (1993) mention that a proactive personality is a relative stable tendency of an employee to affect environmental change. In other words, such an employee is intrinsically motivated to change things. This could mean that he or she is less prone to stimulating HR practices than an employee that is less proactive. In addition, research shows that employees who possess all knowledge and skills needed for their job may need less or no stimulating measures (Podsakoff, 1996), suggesting that self-efficacious employees do not need stimulating measures in the form of high-involvement HR practices to enact job crafting behavior. Confirming this, Speier and Frese (1997) found that employees scoring high on self-efficacy did not need strong encouragement in order to show initiative. Focusing on proactive personality and their relationship with some HR practices in explaining job crafting, for example learning behavior, research shows that this intrinsic proactive personality makes that active stimulating HR practices are not needed. Previous research shows that proactive employees actively look for opportunities to develop themselves and to learn (Sonnentag, 2003). First, they have more motivation to learn (Fuller & Marler, 2009). Second, they are able to channel learning effort more precisely towards the areas that are need, and they can comfortable pace themselves (Ashford & Black, 1996). In line with this, self-efficacious employees do not necessarily need help in setting out their career path and the goals they can and want to achieve as they already choose more difficult goals and set out the path themselves (Locke & Latham, 1990). Moreover, focusing on socialization practices, socialization of a new employee can be institutionalized, but can also be supplemented by proactive behavior as proactive employees actively seek feedback about the values of the organization or build their own social networks (Kim, Cable, & Kim, 2005). Moreover, proactive socialization of and employee can lead to similar levels or perceived fit within the organization as did institutionalized practices for socialization (Kim et al., 2005).

Overall, following substitute for leadership theory, it seems that employees with a proactive personality and/or being self-efficacious are not influenced by high-involvement HR practices. Therefore, it is expected that these factors substitute HR practices in explaining job crafting. Hence, a self-efficacious employee is already tempted to craft his or her job, which makes that stimulating high-

involvement HR practices have no influence. On the contrary, an employee scoring low on RBSE will enact more job crafting behaviors as a consequence of high-involvement HR practices. Accordingly, the following is proposed:

*Hypothesis 5a*: Proactive personality moderates the relationship between high-involvement HR systems and job crafting such that the relationship will be weaker for employees scoring high on proactive personality than for low proactive employees.

*Hypothesis 5b*: Role breadth self-efficacy moderates the relationship between high-involvement HR systems and job crafting such that the relationship will be weaker for employees scoring high on role breadth self-efficacy than for those scoring low on role breadth self-efficacy.

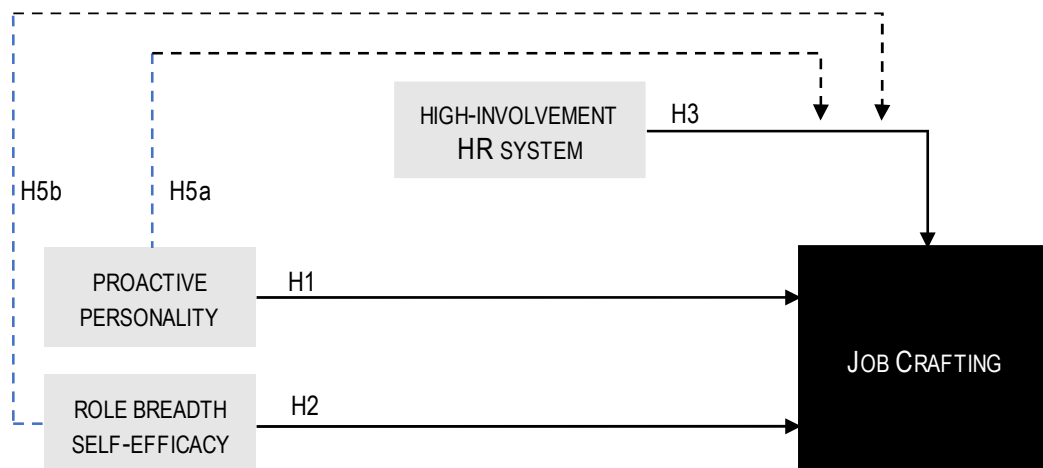Also based on these hypotheses, a research model can be drawn. Figure 2 shows this research model.



*Figure 2.* Research model based on substitute for leadership theory.

# METHOD

**RESEARCH DESIGN & PROCEDURE**

With this study it was aimed to obtain generalizable results on the interrelationship between individual and contextual factors in explaining job crafting. For this, data of a large number of respondents was needed (Everaert & van Peet, 2006), which could be achieved by means of a quantitative study. Therefore, data was gathered by means of a survey. The survey was distributed via snowball sampling. Via e-mail and social media the researcher recruited respondents by sharing the link to the survey and asking people (a) to fill in the survey and (b) to share the survey with their own network, who could then share it again. One click on the link directed them to the online survey that was constructed in Qualtrics (see Appendix A for the survey questions).

The online survey started with an introduction text, informing the respondents about the purpose of the study and the confidentiality and anonymity of the data collection. In addition, instructions on how to complete the survey and the approximate time to fill it in were given. After reading this, respondents had to give their consent for participating in the study. Hereafter, the actual questions started, with the first page of questions measuring the personality traits role breadth self-efficacy and proactive personality. The page after that showed all questions measuring job crafting behavior, followed by a page of items focused on high involvement HR. Lastly, they had to fill in demographic and control variables. After completion, participants were thanked for their participation in the study and offered the opportunity to ask questions and/or request a copy of the results of the study.

**SAMPLE AND PARTICIPANTS**

In order to take part in the survey, respondents needed to be an employee working in an organization, since work behavior was measured, as well as the HR practices experienced by the employee. A total of 200 respondents participated in the survey. However, eight of these surveys were deleted as these were only filled in partly. Thereafter, the data was checked for outliers. An analysis of standard residuals was carried out to identify any outliers, which indicated that one participant needed to be removed. Hereafter, no additional outliers were found, resulting in a total of 191 correct and completed surveys.

Table 1 shows the demographics of this sample that, as one can see, do not resemble the standard proportions of the Dutch labor force. First, the sample consists of a rather large number of female respondents (n=123, 64,1%). Second, the average age of 37.2 (SD=12.6) lies approximately five year below the average age of the Dutch labor force (CBS, 2017). And last, whereas 28.4% of the Dutch labor force is higher educated (CBS, 2017), around 80% of the respondents in this study was higher educated (HBO: n=61, 31,8%; WO: n=94, 49%). Only 13,5% had followed intermediate vocational education (MBO: n=26) and the smallest group (5,7%) consisted of those that only finished high school. The other demographics show that most of the respondents (30.2%) worked in *human health & social work activities*, followed by *Information & Communication* (12.5%) and *Education* (9.9%). For an overview of all different sectors see appendix B. Regarding tenure, the function tenure of 4.34 years (SD=5.9) was approximately 2 years less than organization tenure (6.32 years, SD=7.7).

In addition, more than half of the respondents had a permanent contract (61.5%) and on average they work 34.8 hours per week (SD=10.1).

**Table 1** Demographics of sample

| Demographic construct | Total | | | |
|---|---|---|---|---|
| | *N*=192 (%) | | | |
| Gender | Female | | Male | |
| | *N*=123 (64.1) | | *N*=69 (35.9) | |
| Age (average) | 37.2 (SD=12.6) | | | |
| Education | High School | MBO | HBO | University |
| | *N*=11 (5.7) | *N*=26 (13.5) | *N*=61 (31.8) | *N*=94 (49.0) |
| Organization size (employees) | Less than 50 | 50 – 250 | More than 250 | |
| | *N*=48 (25) | *N*=56 (29.2) | *N*=88 (45.8) | |
| Tenure function (average) | 4.34 (SD=5.9) | | | |
| Tenure organization (average) | 6.32 (SD=7.7) | | | |
| Type of contract | Temporary | Permanent | Via employment-agency | Different |
| | *N*=57 (29.7) | *N*=118 (61.5) | *N*=9 (4.7) | *N*=8 (4.2) |
| Working hours per week (average) | 34.8 (SD=10.1) | | | |

## MEASURES

### PROACTIVE PERSONALITY

Employees' proactive personality was assessed using the six-item version (Claes, Beheydt, & Lemmens, 2005) of the Proactive Personality Scale (PPS) developed by Bateman and Crant (1993). Items included: 'If I believe in an idea, no obstacle will prevent me from making it happen' and 'I am always looking for better ways to do things'. Participants could respond on a five-point likert scale ranging from 1 (= strongly disagree) through 5 (= strongly agree).

This scale, consisting of six items, was rotated. The Kaiser-Meyer-Olkin (KMO) was .72, indicating the adequacy of sampling and a good value according to Field (2009). The KMO values for the individual items were > .65, again above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity (15) = 200.99, p < .001, showed that this data set was suitable for PCA. An initial analysis was applied to obtain the eigenvalues of the components. This analysis showed two eigenvalues over Kaiser's criterion of 1, together explaining 58.87% of the total variance.

These two factors were again rotated and the Kaiser-Meyer-Olkin (KMO) was .5. indicating the adequacy of sampling and a mediocre value according to Field (2009). Bartlett's test of sphericity (1) =

28.694, p < .001, showed that this data set was suitable for PCA. An initial analysis was applied to obtain the eigenvalues of the components. This analysis showed one eigenvalue over Kaiser's criterion of 1, together explaining 68.74% of the total variance, both load .83 on one component. That is, proactive personality could be captured in one factor, measured by six items. Proactive personality had a Cronbach's alpha of α = .71.

### ROLE BREADTH SELF-EFFICACY

Employees' role breadth self-efficacy was assessed using the seven highest loading items version (Parker, Williams, & Turner, 2006) of the original RBSE scale, which is ten items, developed by Parker (1998). Participants were asked how confident they would feel carrying out certain tasks, for example 'How confident would you feel helping to set targets/goals in your work area' or 'How confident would you feel making suggestions to management about ways to improve the working of your team'. Again, participants could respond on a five-point Likert scale, in this case ranging from 1 = not at all confident to 5 = very confident. After performing a principal component analysis with orthogonal rotation (varimax) one item was deleted, as the communality of this particular item was low. Eventually, all other items did load on one component, making that RBSE was measured by six items with a Cronbach's alpha of        α = .77.

### JOB CRAFTING

Employees' perception of their own job crafting behavior was measured using the four dimensions of the job crafting scale developed by Tims et al. (2012). These dimensions are: 'increasing social resources' (e.g. 'I ask whether my supervisor is satisfied with my work'), 'increasing structural resources' (e.g. 'I try to learn new things at work'), 'increasing challenging job demands' (e.g. 'If there are new developments, I am one of the first to learn about them and try them out'), and 'decreasing hindering demands' (e.g. 'I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once'). The latter consisted of six items and the other three dimensions of 5 items. On a scale from one to five, respondents could indicate how often they engaged in each of the job crafting behaviors: 1 = never, 2 = seldom, 3 = regularly, 4 = often, 5 = very often.

In order to check whether the gathered data matched with the dimensions of Tims et al. (2012) a principal component analysis (PCA) was conducted on the 21 job crafting items with orthogonal rotation (varimax). The Rotated Pattern Matrix showed five components with an eigenvalue over Kaiser's criterion of 1, together explaining 58.59% of the total variance. However, as only one variable loaded on the fifth component, this one was deleted. Then the PCA was conducted on the 20 remaining job crafting items. The Kaiser-Meyer-Olkin (KMO) was .8. indicating the adequacy of sampling and a great value according to Field (2009). In addition, the KMO values for the individual items were > .67, again above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity χ2 (190) = 1328.75, p < .001, showed that this data set was suitable for PCA. An initial analysis was applied to obtain the eigenvalues of the components. This analysis showed four eigenvalues over

Kaiser's criterion of 1, together explaining 54.91% of the total variance. Table 2 shows the factor loadings after rotation, with a criterion level of .40 (Field, 2009).

**Table 2** Factor Loadings for Principal Component Analysis With Varimax Rotation for job crafting

| | Items | Rotated factor loadings | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1 | If there are new developments, I am one of the first to learn about them and try them out | .759 | | | |
| 2 | I try to make my work more challenging by examining the underlying relationships between aspects of my job (and that of others). | .734 | | | |
| 3 | I try to develop my capabilities | .669 | | | |
| 4 | I decide on my own how I do things in my work | .619 | | | |
| 5 | When an interesting project comes along, I offer myself proactively to work on it. | .595 | | | |
| 6 | I try to learn new things at work | .585 | | | .431 |
| 7 | I try to develop myself professionally | .524 | | | |
| 8 | I try to ensure that my work is emotionally less intense | | .803 | | |
| 9 | I make sure that my work is mentally less intense | | .769 | | |
| 10 | I manage my work so that I try to minimize contact with people whose problems affect me emotionally | | .752 | | |
| 11 | I organize my work so as to minimize contact with people whose expectations are unrealistic | | .692 | | |
| 12 | I try to ensure that I do not have to make difficult decisions at work | | .597 | | |
| 13 | I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once | | .557 | | |
| 14 | I ask others for feedback on my job performance | | | .781 | |
| 15 | I ask whether my supervisor is satisfied with my work | | | .765 | |
| 16 | I ask colleagues for advice on how to improve my performance | | | .752 | |
| 17 | I ask my supervisor to coach me | | | .673 | |
| 18 | I make sure that I use my capabilities to the fullest | | | | .703 |
| 19 | When there is not much to do at work, I see it as a chance to start new projects | .428 | | | .586 |
| 20 | I regularly take on extra tasks even though I do not receive extra salary for them | | | | .548 |
| | Eigenvalues | 4.91 | 3.32 | 1.69 | 1.05 |
| | % of Variance | 24.56 | 16.62 | 8.48 | 5.26 |
| | Cronbach's alpha | .81 | .80 | .77 | .63 |

Component two and three resembled dimensions proposed by Tims et al. (2012), with component two consisting of the items of the 'decreasing hindering demands' dimension and three consisting of the 'increasing social resources' items. The other two components both consisted of the items about 'increasing challenging demands' and 'structural resources'. However, a difference between the two components could be found. The items loading on factor one were mainly about

increasing resources through which an individual can learn things, these were *enriching* resources. On the other hand, the items loading on component four were merely about expanding tasks, so-called *enlarging* resources. Therefore, the components could be categorized in the following manner: 'increasing enriching resources' was represented by component 1, 'decreasing hindering demands' by component 2, 'increasing social resources' by component 3 and 'increasing enlarging resources' by component 4.

To make sure that the four components together measured job crafting behavior, again, a principal component analyses was conducted, now on the four components. Mean scores were computed and the four items were rotated with orthogonal rotation (varimax). A Kaiser-Meyer-Olkin (KMO) of .59, indicated adequacy of sampling, a mediocre value according to Field (2009). In addition, Bartlett's test of sphericity (6) = 124.26, $p < .001$, showed that this data set was suitable for PCA. Analysis showed two eigenvalues over Kaiser's criterion of 1, together explaining 74.88% of the total variance. Now component one consisted of all increasing components ('increasing enriching resources', 'increasing social resources' and 'increasing enlarging resources'), while component two consisted of 'decreasing hindering demands'. Moreover, Pearson Correlation showed that there was no correlation between the two components ($r = -.06$, $p = .44$), meaning that job crafting could not be measured by one factor as it consisted of two forms. As component one represented all variables on increasing challenging resources it was named 'seeking job resources & challenges' ($\alpha = .85$). Moreover, component two was named 'reducing job demands' ($\alpha = .80$) as it included all decreasing hindering demands. Both were measured in this study.

### HIGH-INVOLVEMENT HR PRACTICES

Based on the PIRK-elements (Lawler, 1986; Vandenberg, Richardson, & Eastman, 1999), high involvement management was measured with four scales constructed by Riordan et al. (2005). The four scales were measured with different amounts of items: power was measured by three items (e.g. 'I have enough freedom over how I do my job'), information consisted of six items (e.g. 'Most of the time I receive sufficient notice of changes affecting my work group'), reward included five items (e.g. 'I am satisfied with the amount of recognition I receive when I do a good job'), and lastly, four items measured knowledge (e.g. 'If I felt that I needed more job-related training, the company would provide it'). On a scale from one (= strongly disagree) to five (=strongly agree) respondents could indicate to what extent they agreed with the different items.

Again, PCA with orthogonal rotation (varimax) was conducted to check if the gathered data matched the by Riordan et al. (2005) proposed dimensions. The total of 20 items was rotated and showed a Kaiser-Meyer-Olkin (KMO) of.84, indicating adequacy of sampling and a great value according to Field (2009). In addition, the KMO values for the individual items were > .71, which is also above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity (153) = 1471.6. $p < .001$, showed that this data set was suitable for PCA. The initial analysis applied to obtain the eigenvalues of the components showed four eigenvalues over Kaiser's criterion of 1, together explaining 62.40% of the total variance. Table 3 shows the factor loadings after rotation, with a criterion level of .40 (Field, 2009).

**Table 3** Factor Loadings for Principal Component Analysis with Varimax Rotation for high-involvement HR

| | Items | Rotated factor loadings | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| 1 | Company policies and procedures are clearly communicated to employees | ,825 | | | |
| 2 | The channels for employee communication with top management are effective | ,802 | | | |
| 3 | Company goals and objectives are clearly communicated to employees | ,751 | | | |
| 4 | Most of the time I receive sufficient notice of changes affecting my work group | ,738 | | | |
| 5 | Top management is adequately informed of the important issues in my department | ,645 | | | |
| 6 | I often have to rely on the grapevine to get job-related information (reverse) | ,618 | | | |
| 7 | I have had sufficient/adequate job-related training | | ,865 | | |
| 8 | Education and training are integral parts of this company's culture | | ,820 | | |
| 9 | I receive sufficient training to do my job | | ,806 | | |
| 10 | If I felt that I needed more job-related training, the company would provide it | | ,669 | | |
| 11 | There is a strong link between how well I perform my job and the likelihood of receiving a raise in pay/salary | | | ,878 | |
| 12 | If I perform well, I am more likely to be promoted | | | ,848 | |
| 13 | Generally I feel this company rewards employees who make an extra effort | | | ,703 | |
| 14 | There is a strong link between how well I perform my job and the likelihood of receiving high performance appraisal ratings | | | ,486 | |
| 15 | I am satisfied with the amount of recognition I receive when I do a good job | | | ,450 | ,412 |
| 16 | I have enough freedom over how I do my job | | | | ,815 |
| 17 | I have sufficient authority to fulfill my job responsibilities | | | | ,749 |
| 18 | I have enough input in deciding how to accomplish my work | | | | ,709 |
| | Eigenvalues | 5.91 | 2.11 | 1.71 | 1.51 |
| | % of Variance | 32.81 | 11.70 | 9.50 | 8.39 |
| | Cronbach's alpha | .85 | .85 | .79 | .72 |

In line with Riordan et al. (2005), four dimensions were found with the same items loading highest on them. The dimensions represented by the components are: component 1 'information', component 2 'knowledge', components 3 'reward' and component 4 'power'.

With these four components, a second PCA with orthogonal rotation (varimax) was conducted, to make sure that, together, these four components measure high involvement HR. With a Kaiser-Meyer-Olkin (KMO) of .74, the sampling was adequate. In line, the KMO values for the individual items were also above the acceptable limit of .5 (Field, 2009): >.72. Bartlett's test of sphericity (5) = 116.79, $p < .001$, showed that this data set was suitable for PCA. Regarding the eigenvalues, the analysis

showed that all components (power, information, reward and knowledge) loaded on the same component with an eigenvalue over Kaiser's criterion of 1, together explaining 51.96% of the total variance. Hence, high involvement HR could be measured by taking these four dimensions together. In addition, with a Cronbach's alpha of $\alpha = .88$, reliability of this scale was also ensured.

### CONTROL VARIABLES

In addition to the measures mentioned above there were some control variables included in the survey. Job and organizational tenure were included as, in comparison to employees with long job or organizational tenure, employees that work less long in a certain role or organization try to alter certain aspects of their job more (Berg et al., 2010). Moreover, working hours were also included as working more hours gives employees more possibilities to craft their job (Tims & Bakker, 2010). Also, education level influences proactive behavior and job crafting is a form of proactive behavior (Bindl & Parker, 2011). Moreover, the higher one is educated, the more opportunities one will get to craft a job (Bakker et al., 2012). Therefore, education was also included. As several authors mention that job crafting behavior could differ according to age (Kooij, 2015), this was also included. In addition, contract type was taken into account, expecting that job crafting behavior may depend on temporal factors such as career expectations and aspirations (Fried, Grant, Levi, Hadani, & Slowik, 2007). Lastly, field of working and organization size were included as control variables as the freedom for crafting could depend on the type of work and size of organization.

# RESULTS

## CORRELATIONS

In table 4 (next page), the means, standard deviations and correlations for all variables can be found. It shows several significant positive and negative correlations, that suggest certain relationships. All significant correlations will be discussed.

Focusing on the control variables, the correlations in table 4 show that education correlates positively with role breadth self-efficacy ($r$=.18, $p$<.05) and seeking job resources and challenges ($r$=.29, $p$<.001). This suggests that the higher one is educated, the higher his or her role breadth self-efficacy will be. In addition, this suggest that higher educated people will seek more for job resources and challenges than lower educated ones. With regard to tenure, both organization tenure ($r$=-.28, $p$<.001) and job tenure ($r$=-.26, $p$<.001) show negative correlations with seeking job resources and challenges, which might indicate that as the years one is working within an organization and/or function are increasing, seeking for job resources and challenges will decrease. The last control variable showing significant correlations is working hours per week. This variable correlates positively with proactive personality ($r$=.18, $p$<.05), RBSE ($r$=.33, $p$<.001) and seeking job resources and challenges ($r$=.36, $p$<.001), thereby suggesting that people who work more hours per week, score higher on proactive personality, RBSE and seeking job resources and challenges.

Then, focusing on the independent variables, proactive personality correlates with RBSE ($r$=.40, $p$<.001), reducing job demands ($r$=-.17, $p$<.05) and seeking job resources and challenges ($r$=.48, $p$<.001). These correlations suggest that with the increase of proactive personality, both RBSE and seeking job resources and challenges also increase. On the contrary, with the increase of proactive personality, reducing job demands decreases. RBSE only correlates positively with seeking job resources and challenges ($r$=.55, $p$<.001). Last, high involvement HRM has a positive correlation with seeking job resources and challenges ($r$=.3. $p$<.01), suggesting that with increasing high involvement HRM, seeking job resources and challenges also increases.

## HYPOTHESIS TESTING

### MAIN EFFECTS

In order to test hypothesis 1 till 3, regression analyses were performed. As it appeared that job crafting can occur in two forms, these hypotheses were split into two hypotheses each. For example, hypothesis 1 assumed that RBSE is positively related to job crafting. Hypothesis 1a now states that RBSE is positively related to seeking job resources and challenges and hypothesis 1b that RBSE positively relates to reducing job demands. The same was done for hypothesis 2 and 3. For testing these hypotheses multiple regression analyses were performed, with either seeking job resources and challenges or reducing job demands as dependent variable.

In the first multiple regression analysis, the main effect of proactive personality, RBSE and high-involvement HR on seeking job resources and challenges was tested. By this, hypothesis 1a, which states that role breadth self-efficacy is positively related to seeking job resources and challenges; hypothesis 2a, which states that proactive personality is positively related to seeking job

**Table 4** Means, Standard Deviations and Correlations

| Variables | *M* | *SD* | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Education | 4.24 | .90 | 1 | | | | | | | | | | |
| 2. Organization Size | 2.21 | .82 | -.02 | 1 | | | | | | | | | |
| 3. Organization tenure | 6.35 | 7.72 | -.40*** | .28*** | 1 | | | | | | | | |
| 4. Job tenure | 4.36 | 5.92 | -.38*** | .13 | .70*** | 1 | | | | | | | |
| 5. Employment contract | 1.84 | .70 | -.05 | .02 | .16* | .12 | 1 | | | | | | |
| 6. Hours of work per week | 34.09 | 10.10 | .31*** | -.10 | -.20** | -.19** | -.16* | 1 | | | | | |
| 7. Proactive personality | 3.70 | .53 | .10 | -.06 | -.10 | -.03 | -.04 | .18* | 1 | | | | |
| 8. RBSE | 3.64 | .61 | .18* | -.04 | -.04 | -.06 | -.01 | .33*** | .40*** | 1 | | | |
| 9. High involvement HRM | 3.42 | .53 | .11 | -.12 | -.14 | -.08 | -.15* | .16* | .14 | .08 | 1 | | |
| 10. Seeking job resources and challenges | 3.36 | .51 | .29*** | -.13 | -.28*** | -.26*** | -.11 | .36*** | .48*** | .55*** | .29*** | 1 | |
| 11. Reducing job demands | 2.15 | .59 | -.01 | -.02 | -.06 | -.03 | -.01 | .07 | -.17* | -.14 | -.08 | -0.70 | 1 |

*. Regression is significant at the 0.05 level (2-tailed);     **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

resources and challenges; and hypothesis 3a, which states that a high-involvement HR system is positively related to seeking job resources and challenges, could be tested. First, the control variables were entered (Model 1, Table 5). This model was significant (F=7.59, p<.001) and explained 20% of the variance in seeking job resources and challenges. In this model, the amount of working hours per week had a significant relationship with seeking job resources and challenges (β=.28, p<.001), indicating that people who work more hours per week also seek more for job resources and challenges. Entering the independent variables proactive personality, RBSE and high-involvement HR (Model 2, Table 5), it was found that these independent variables explain a significant amount of the variance in the value of seeking job resources and challenges $F_{(9, 181)}=19.54$, p<.001), explaining 49.3% of the variance in seeking job resources and challenges. Moreover, the analysis showed that RBSE (β = .38, t(190) = 5.15, p < .001), proactive personality (β = .26, t(190) = 4.47, p < .001) and high-involvement HR (β = .16, t(190) = 3.08, p < .05), all significantly predict the value of seeking job resources and challenges. This means that, hypothesis 1a, 2a and 3a can be confirmed. Checking Z-scores shows us that, overall, RBSE (Z=.34, p < .001) has the biggest influence, followed by proactive personality (Z=.27, p < .001) and high-involvement HR (Z=.2, p < .001).

**Table 5** *Summary of multiple linear regression analysis for independent variables predicting seeking job resources and challenges (N=191)*

|  | Model 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
|  | *B* | *SE B* | *β* | *B* | *SE B* | *β* |
| Constant | 2,80 | .24 |  | .57 | .32 |  |
| **Control variables** |  |  |  |  |  |  |
| Education | .08 | .04 | .13 | .04 | .04 | .07 |
| Organization size | -.06 | .04 | -.09 | -.02 | .04 | -.04 |
| Organization tenure | -.01 | .01 | -.08 | -.01 | .01 | -.08 |
| Function tenure | -.01 | .01 | -.09 | -.01 | .01 | -.11 |
| Contract type | -.03 | .05 | -.04 | -.03 | .04 | -.04 |
| Working hours per week | .01 | .00 | .28*** | .01 | .00 | .09 |
| **Independent variables** |  |  |  |  |  |  |
| Proactive Personality |  |  |  | .25 | .06 | .26*** |
| RBSE |  |  |  | .32 | .05 | .38*** |
| HRM |  |  |  | .16 | .05 | .17** |
| $R^2$ |  | .20 |  |  | .49 |  |
| F for change in $R^2$ |  | 7.59*** |  |  | 35.04*** |  |

*. Regression is significant at the 0.05 level (2-tailed);　　　**. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

Hereafter, a multiple linear regression was calculated to predict reducing job demands based on RBSE, proactive personality and high-involvement HR. By this, hypothesis 1b, which states that role breadth self-efficacy is positively related to reducing job demands; hypothesis 2b, which states that proactive personality is positively related to reducing job demands; and hypothesis 3b, which states that a high-involvement HR system is positively related to reducing job demands, were tested. Model 1 (table 6), including the control variables, was non-significant (F(6, 184)=.34, p>.05), explaining 1.1% of the variance. Entering the independent variables proactive personality, RBSE and

high-involvement HR (Model 2, Table 6), it was found that these independent variables also did not explain a significant amount of the variance in the value of seeking job resources and challenges ($F(9, 181)=1.35$, $p>.05$), explaining 6.3% of the variance. However, F for change in $R^2$ (3.34, $p<.05$) was significant, showing that the independent variables do add to the model. In this, the analysis showed that proactive personality ($\beta =-.14$, $t(190) = -1.72$, $p>.05$), RBSE ($\beta =-.12$, $t(190) = -1.5$. $p>.05$) and high-involvement HR ($\beta =-.08$, $t(190) =-1.1$. $p>.05$) did not contribute to this. Independent of their (non-) significant relationship with reducing job demands all show a negative relationship with reducing job demands, which makes that hypothesis 1b, 2b, 3b, are all rejected.

**Table 6** *Summary of multiple linear regression analysis for independent variables predicting reducing job demands (N=191)*

| | Model 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
| | *B* | *SE B* | β | *B* | *SE B* | β |
| Constant | 2,19 | .31 | | 3,34 | .50 | |
| **Control variables** | | | | | | |
| Education | -.04 | .06 | -.06 | -.03 | .06 | -.04 |
| Organization size | .00 | .06 | .00 | -.02 | .06 | -.02 |
| Organization tenure | -.01 | .01 | -.08 | -.01 | .01 | -.09 |
| Function tenure | .00 | .01 | .02 | .00 | .01 | .03 |
| Contract type | .01 | .06 | .01 | .00 | .06 | .00 |
| Working hours per week | .01 | .01 | .08 | .01 | .01 | .15 |
| **Independent variables** | | | | | | |
| Proactive Personality | | | | -.15 | .09 | -.14 |
| RBSE | | | | -.12 | .08 | -.12 |
| HRM | | | | -.09 | .08 | -.08 |
| $R^2$ | | .01 | | | .06 | |
| F for change in $R^2$ | | .34 | | | 3.34* | |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

### INTERACTION EFFECTS

In order to test hypothesis 4 and 5, that both suggest a moderation effect in explaining job crafting, again, multiple regression analyses were performed. Hypothesis 4 states that high involvement HR systems moderate the relationship between (a) proactive personality, (b) RBSE, and job crafting, such that the relationship between (a) proactive personality, (b) RBSE, and job crafting is stronger when employees perceive the high-involvement HRM systems as high than when employees perceive it as low. Moreover, hypothesis 5 also suggests a moderation effect, but then in the form of substitution. It states that (a) proactive personality, (b) RBSE, moderates the relationship between high-involvement HR systems and job crafting such that the relationship will be weaker for employees scoring high on (a)proactive personality, (b) RBSE, than for low (a)proactive personality, (b) RBSE, employees.

First, a multiple linear regression was calculated to predict seeking job resources and challenges based on the interaction between RBSE and seeking job resources and challenges, and between proactive personality and seeking job resources and challenges. By this, hypothesis 4 and 5 were both tested. Model 1 and model 2 (table 7) resemble model 1 and 2 in table 6, first, including the

control variables, second, including the independent variables RBSE, proactive personality and high-involvement HR. Last, the two-way interactions were included in the third and fourth model. Specifically, the two-way interaction between proactive personality and a high-involvement HR system was included in the third model, and the fourth included the two-way interaction between RBSE and high-involvement HR system. Entering the two-way interaction between proactive personality and high-involvement HR (Model 3, table 7) did not significantly improve the total variance explained ($R^2$), as shown by the table. Although the model itself is still significant ($F(1. 180)=17.52$, $p<.001$), the interaction between proactive personality and high-involvement HR did not contribute to that *(β =.2. t(190)=.4. p>.05)*. In other words, no interaction effect between proactive personality and high-involvement HR took place in explaining seeking job resources and challenges. Subsequently, entering the two-way interaction between RBSE and high-involvement HR (Model 4, table 7), again no significant improvement in the total variance explained ($R^2$) was found. In model 4 ($F(1. 180)=2.46$, $p<.001$), the interaction between RBSE and high-involvement HR had no contribution (β =.07, t(190)=.13, p>.05). Hence, also for RBSE and high-involvement HR no interaction effect took place in explaining seeking job resources and challenges. In line with this, both hypothesis 4 and 5 were rejected for seeking job resources and challenges.

**Table 7** *Summary of multiple linear regression analysis for interaction variables predicting seeking job resources and challenges (N=191)*

|  | Model 1 | | | Model 2 | | | Model 3 | | | Model 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β |
| Constant | 2,80 | .24 |  | .57 | .32 |  | 1,01 | 1,18 |  | .72 | 1,17 |  |
| **Control variables** | | | | | | | | | | | | |
| Education | .08 | .04 | .13 | .04 | .04 | .07 | .04 | .04 | .07 | .04 | .04 | .07 |
| Organization size | -.06 | .04 | -.09 | -.02 | .04 | -.04 | -.02 | .04 | -.04 | -.02 | .04 | -.04 |
| Organization tenure | -.01 | .01 | -.08 | -.01 | .01 | -.08 | -.01 | .01 | -.08 | -.01 | .01 | -.08 |
| Function tenure | -.01 | .01 | -.09 | -.01 | .01 | -.11 | -.01 | .01 | -.11 | -.01 | .01 | -.11 |
| Contract type | -.03 | .05 | -.04 | -.03 | .04 | -.04 | -.02 | .04 | -.03 | -.03 | .04 | -.04 |
| Working hours per week | .01 | .00 | .28*** | .01 | .00 | .09 | .01 | .00 | .10 | .01 | .00 | .10 |
| **Independent variables** | | | | | | | | | | | | |
| Proactive Personality |  |  |  | .25 | .06 | .26*** | .13 | .31 | .14 | .25 | .06 | .26*** |
| RBSE |  |  |  | .32 | .05 | .38*** | .32 | .05 | .38*** | .28 | .30 | .33 |
| HRM |  |  |  | .16 | .05 | .17** | .03 | .34 | .03 | .12 | .34 | .12 |
| **Interaction variables** | | | | | | | | | | | | |
| HRM*PP |  |  |  |  |  |  | .04 | .09 | .20 |  |  |  |
| HRM*RBSE |  |  |  |  |  |  |  |  |  | .01 | .09 | .07 |
| $R^2$ |  | .20 |  |  | .49 |  |  | .49 |  |  | .49 |  |
| F for change in $R^2$ |  | 7.59*** |  |  | 35.04*** |  |  | .16 |  |  | .02 |  |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

Second, a multiple linear regression was calculated to predict reducing job demands based on the interaction between proactive personality and reducing job demands, and between RBSE and reducing job demands. By this, again hypothesis 4 and 5 were both tested, but then with regard to reducing job demands. Model 1 and model 2 (table 8) resemble model 1 and 2 in table 8, with the included control variables and the independent variables RBSE, proactive personality and high-involvement HR. The two-way interactions were included in the third and fourth model. For reducing job demands, entering the two-way interaction between proactive personality and high-involvement HR (Model 3, table 8) did not significantly improve the total variance explained ($R^2$). A non-significant regression equation was found ($F(1. 180)=1.241$, $p=.268$), with an $R^2$ of .06. Moreover, the interaction between proactive personality and high-involvement HR was non-significant $(β =.2$. $t(190)=.4$. $p>.05$). In other words, no interaction effect between proactive personality and high-involvement HR took place in explaining reducing job demands. Subsequently, entering the two-way interaction between RBSE and high-involvement HR (Model 4, table 8), again no significant improvement in the total variance explained ($R^2$) was found. A non-significant model was found ($F(1. 180)=1.21$, $p>.05$), in which the interaction between RBSE and high-involvement HR had no contribution ($β =.04$, $t(190)=.26$, $p>.05$). Hence, also for RBSE and high-involvement HR, no interaction effect took place in explaining reducing job demands. Therefore, also for reducing job demands, hypotheses 4 and 5 were rejected.

**Table 8** *Summary of multiple linear regression analysis for interaction variables predicting reducing job demands (N=191)*

| | Model 1 | | | Model 2 | | | Model 3 | | | Model 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β |
| Constant | 2,19 | .31 | | 3,34 | .50 | | 2,32 | 1,86 | | 3,80 | 1,85 | |
| **Control variables** | | | | | | | | | | | | |
| Education | -.04 | .06 | -.06 | -.03 | .06 | -.04 | -.02 | .06 | -.03 | -.03 | .06 | -.04 |
| Organization size | .00 | .06 | .00 | -.02 | .06 | -.02 | -.02 | .06 | -.02 | -.02 | .06 | -.02 |
| Organization tenure | -.01 | .01 | -.08 | -.01 | .01 | -.09 | -.01 | .01 | -.09 | -.01 | .01 | -.09 |
| Function tenure | .00 | .01 | .02 | .00 | .01 | .03 | .00 | .01 | .04 | .00 | .01 | .03 |
| Contract type | .01 | .06 | .01 | .00 | .06 | .00 | .00 | .06 | .00 | .00 | .06 | .00 |
| Working hours per week | .01 | .01 | .08 | .01 | .01 | .15 | .01 | .01 | .15 | .01 | .01 | .15 |
| **Independent variables** | | | | | | | | | | | | |
| Proactive Personality | | | | -.15 | .09 | -.14 | .12 | .48 | .11 | -.15 | .09 | -.14 |
| RBSE | | | | -.12 | .08 | -.12 | -.12 | .08 | -.13 | -.24 | .46 | -.25 |
| HRM | | | | -.09 | .08 | -.08 | .21 | .54 | .19 | -.23 | .53 | -.20 |
| **Interaction variables** | | | | | | | | | | | | |
| HRM*PP | | | | | | | -.08 | .14 | -.39 | | | |
| HRM*RBSE | | | | | | | | | | .04 | .14 | .18 |
| $R^2$ | | .01 | | | .06 | | | .06 | | | .06 | |
| F for change in $R^2$ | | .36 | | | 3.40* | | | .32 | | | 0.7 | |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

Overall, these analyses show that for both seeking job resources and challenges and reducing job demands, no interaction effects took place between either job crafting or RBSE and high-involvement HR. In other words, the individual factors RBSE and proactive personality did not substitute high-involvement HR in explaining job crafting (both seeking and reducing). In addition, high-involvement HR did not moderate the relationship between the individual factors and job crafting (both seeking and reducing).

## ADDITIONAL ANALYSES

The findings so far do not support the interaction effects, but do support the direct relationships in the proposed model. However, it remains unclear whether each aspect of high-involvement HR is equally important for seeking job resources and challenges. In addition, it is unclear if some of the dimensions of high-involvement HR do influence reducing job demands, although the high-involvement HR, as one concept, has no significant relationship with it. Therefore, additional multiple regression analyses were conducted with seeking job resources and challenges, and reducing job demands as dependent variables. In these analyses, high-involvement HR was replaced by power, information, reward and knowledge (the different dimensions of the concept).

In the first additional analysis, a multiple regression analysis was executed to test the main effect of proactive personality, RBSE, power, information, reward and knowledge, on seeking job resources and challenges. By this, it became clear which dimension(s) of high-involvement HR had a direct effect on seeking job resources and challenges. First, the control variables were entered (Model 1, Table 9). Entering the independent variables (Model 2, Table 9), resulted in a model that explained a significant amount of variance in the value of seeking job resources and challenges $F(12, 178)=15.36$, $p<.001$), explaining 50.9% of the variance. Moreover, the analysis showed that, in addition to RBSE ($\beta = .38$, $t(190) = 6.12$, $p < .001$) and proactive personality ($\beta = .26$, $t(190) = 4.47$, $p < .001$), reward ($\beta = .14$, $t(190) = 3.01$, $p < .05$) significantly predicts the value of seeking job resources and challenges. Moreover, power ($\beta = -.01$, $t(190) =-.14$ $p > .05$), information ($\beta = -.01$, $t(190) =-.10$ $p > .05$) and knowledge($\beta = .06$, $t(190) =.97$ $p > .05$), do not significantly contribute.

**Table 9** *Summary of multiple linear regression analysis for independent HR variables predicting seeking job resources and challenges (N=191)*

|  | Model 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
|  | *B* | *SE B* | β | *B* | *SE B* | β |
| Constant | 2,80 | .24 |  | .61 | .32 |  |
| **Control variables** |  |  |  |  |  |  |
| Education | .08 | .04 | .13 | .04 | .04 | .06 |
| Organization size | -.06 | .04 | -.09 | -.03 | .04 | -.04 |
| Organization tenure | -.01 | .01 | -.08 | .00 | .01 | -.06 |
| Function tenure | -.01 | .01 | -.09 | -.01 | .01 | -.11 |
| Contract type | -.03 | .05 | -.04 | -.02 | .04 | -.03 |
| Working hours per week | .01 | .00 | .28*** | .00 | .00 | .09 |
| **Independent variables** |  |  |  |  |  |  |
| Proactive Personality |  |  |  | .25 | .06 | .26*** |
| RBSE |  |  |  | .32 | .05 | .38*** |
| Power |  |  |  | -.01 | .05 | -.01 |
| Information |  |  |  | .00 | .04 | -.01 |
| Reward |  |  |  | .14 | .05 | .19** |
| Knowledge |  |  |  | .04 | .04 | .06 |
| R² |  | .20 |  |  | .51 |  |
| F for change in R² |  | 7.59*** |  |  | 18.74*** |  |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

Hence, after finding a positive significant relationship between high-involvement HR (as a whole) and seeking job resources and challenges these results show that, in this, only the dimension reward also has a positive significant relationship with seeking behavior. However, it could be that power, information and knowledge do have an effect on seeking behavior, but then in the form of an interaction effect. To check this, multiple regression analyses were executed with interaction effects between the different HR dimensions power, information, reward and knowledge. Table 11 in Appendix C shows these analyses with model 1 including the control variables and the independent variables RBSE, proactive personality, power, information, reward and knowledge. Subsequently, in models two until seven the two-way interactions were included (individually). Specifically, the two-way interaction between power and information in model 2, power and reward in model 3, power and knowledge in model 4, information and reward in model 5, information and knowledge in model 6, and reward and knowledge in model 7. For all models entering a two-way interaction between two of the HR components (Model 2-7, table 11) did not significantly improve the total variance explained ($R^2$). In model 2 ($F_{(13, 177)}=14.10$, $p<.001$) the interaction between power and information fell short of statistical significance (β = .05, $t_{(190)}$ =.10 $p > .05$) and also in Model 3 ($F_{(13, 177)}=14.43$, $p<.001$) the interaction between power and reward (β = -.61, $t_{(190)}$ =-1.46 $p > .05$) did not have a significant influence on seeking behavior. Moreover, the interaction between power and knowledge (β = .49, $t_{(190)}$ = 1.20 $p > .05$) in Model 4 ($F_{(13, 177)}=14.32$, $p<.001$) also had no significant influence. Just as

the interaction between information and reward (β = -.30, t(190) =-.96 p > .05) in Model 5 (F(13. 177)=14.24, p<.001). Model 6 (F(13. 177)=14.29, p<.001) shows that the interaction between information and knowledge (β = .42, t(190) =1.11 p > .05) also fell short of statistical significance. And last, model 7 (F(13. 177)=14.10, p<.001) shows that also the interaction between reward and knowledge (β = .06, t(190) =.15 p > .05) did not significantly contribute to seeking job resources and challenges. In other words, regarding the relationship between high-involvement HR and seeking job resources and challenges, the results of this study only show a direct positive relationship between reward and seeking job resources and challenges.

Regarding reducing demands also a multiple regression analysis was executed to test the main effect of proactive personality, RBSE, power, information, reward and knowledge, on reducing job demands. Whereas high-involvement HR as one factor did not significantly relate to reducing job demands, this analysis would show if the dimension(s), individually, would have a significant relationship with reducing job demands. Again, in the first model (table 10) the control variables were entered. Subsequently, entering the independent variables (Model 2, Table 11), resulted in a model that explained a significant amount of variance in the value of reducing job demands (F(12.178)=2.11, p<.05), explaining 12.6% of the variance. Contrary to earlier results, this analysis shows that a part of high-involvement HR significantly influences reducing job demands. In particular, power (β = -.21, t(190) = -2.65, p < .01) significantly predicts the value of reducing job demands.

**Table 10** *Summary of multiple linear regression analysis for independent HR variables predicting reducing job demands (N=191)*

| | Model 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
| | B | SE B | β | B | SE B | β |
| Constant | 2,19 | .31 | | 3,63 | .50 | |
| **Control variables** | | | | | | |
| Education | -.04 | .06 | -.06 | -.03 | .05 | -.05 |
| Organization size | .00 | .06 | .00 | -.05 | .06 | -.07 |
| Organization tenure | -.01 | .01 | -.08 | -.01 | .01 | -.08 |
| Function tenure | .00 | .01 | .02 | .00 | .01 | .02 |
| Contract type | .01 | .06 | .01 | .02 | .06 | .02 |
| Working hours per week | .01 | .01 | .08 | .01 | .01 | .13 |
| **Independent variables** | | | | | | |
| Proactive Personality | | | | -.13 | .09 | -.11 |
| RBSE | | | | -.11 | .08 | -.11 |
| Power | | | | -.21 | .08 | -.22** |
| Information | | | | -.12 | .07 | -.15 |
| Reward | | | | .06 | .07 | .08 |
| Knowledge | | | | .11 | .06 | .15 |
| $R^2$ | | .01 | | | .13 | |
| F for change in $R^2$ | | .34 | | | 3.85** | |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

Thereafter, again, additional multiple regression analyses were executed to test for significant interaction effects between the different HR dimensions power, information, reward and knowledge in explaining reducing job demands. By doing this there was tested if reducing job demands is only influenced by power, or if the other factors do play a role in the form of a two-way interaction. Table 12 in appendix C show the outcomes of these analyses with model in model 1 the control variables and the independent variables RBSE, proactive personality, power, information, reward, and knowledge. Subsequently, models two until seven all include one of the two-way interactions. Specifically, the two-interaction between power and information in model 2, power and reward in model 3, power and knowledge in model 4, information and reward in model 5, information and knowledge in model 6, and reward and knowledge in model 7. Similar to seeking for resources and challenges, for all models, entering a two-way interaction (Model 2-7, table 12) did not significantly improve the total variance explained ($R^2$). In model 2 ($F_{(13. 177)}=1.93$, $p<.05$) the interaction between power and information ($\beta =.00$, $t_{(190)} =.00$ $p > .05$) did not significantly contribute. Model 3 ($F_{(13. 177)}=1.93$, $p<.05$) shows that also for the interaction between power and reward ($\beta = -.02$, $t_{(190)} = -.04$ $p > .05$) no significant result was found. Moreover, the interaction between power and knowledge ($\beta = -.38$, $t_{(190)} =-.68$ $p > .05$) in Model 4 ($F_{(13. 177)}=1.98$, $p<.05$) fell short of statistical significance. Just as the interaction between information and reward ($\beta = .73$, $t_{(190)} = 1.73$ $p > .05$) in Model 5 ($F_{(13. 177)}=2.20$, $p<.05$). Model 6 ($F_{(13. 177)}=1.94$, $p<.05$) shows no significant relationship between reducing job demands and the interaction between information and knowledge ($\beta = -.11$, $t_{(190)} =-.22$ $p > .05$). And last, in model 7 ($F_{(13. 177)}=1.99$, $p<.05$) the interaction between reward and knowledge ($\beta = .40$, $t_{(190)} = .79$ $p > .05$) also fell short of significance. In other words, regarding the relationship between high-involvement HR and reducing job demands, the results of this study only show a direct negative relationship between power and reducing demands.

## SUMMARY OF SIGNIFICANT RELATIONSHIPS

Based on the results, the research models (figures 1 and 2) can be changed and a summary of the research findings can be constructed. Figure 3 shows this summary with, in it, the significant relationships found in this study.
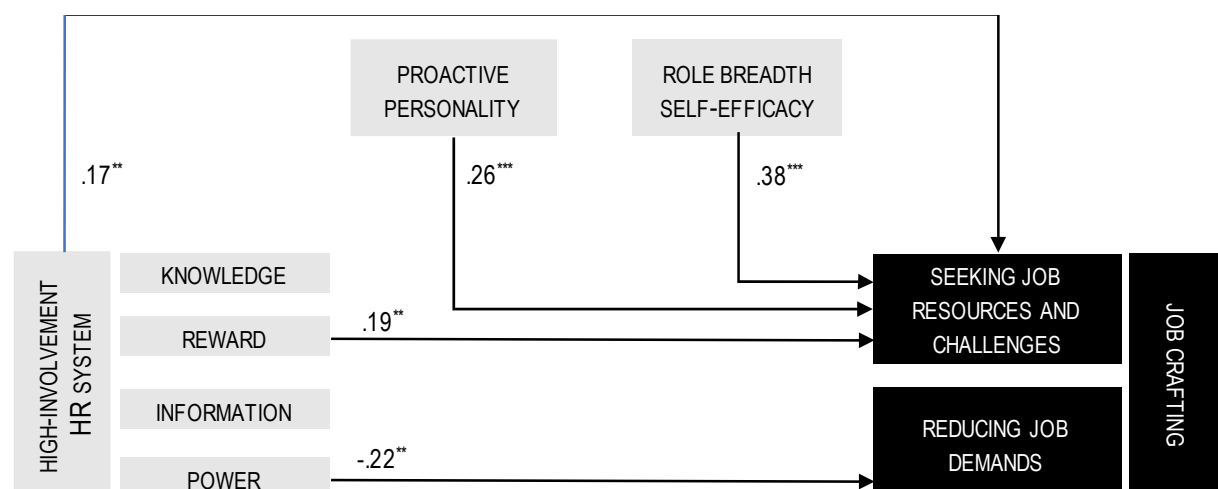


*Figure 3.* Summary of the significant research findings.

# DISCUSSION

The aim of this study was to find out how individual and contextual factors interrelate with each other in explaining job crafting. For this, two theories, one focused on a synergistic and one focused on a substitutive effect, were tested. However, both were not confirmed. The individual and contextual factors did have a direct effect on job crafting behavior, but no interrelationship was found in this study. In this discussion, these results will be discussed in detail. Thereafter, the theoretical implications and directions for future research will be given, followed by the limitations of this study. Lastly, the practical implications will be discussed.

## DISCUSSION OF RESULTS

Based on trait activation theory (Tett & Burnett, 2003) and substitution for leadership theory (Bateman and Crant, 1993) an interrelationship between high-involvement HR and the individual factors of proactive personality and role breadth self-efficacy was expected. Following trait activation theory, a positive moderation effect of high involvement HR on the relationship between the individual factors and job crafting was expected. Moreover, following substitution for leadership theory, a substitution effect of the individual factors on the relationship between high involvement HR and job crafting was expected. However, both theories were not confirmed. Instead, direct effects of proactive personality, RBSE and high involvement HR on seeking job resources and challenges and/or reducing job demands were found.

Consistent with predictions this study found a positive relationship between proactive personality and job crafting in the form of seeking job resources and challenges. Confirming previous research, these results show that the more a proactive personality one has, the more a 'go getter' he or she is (Grant & Ashford, 2008). For example, by seeking information (Morrison, 1993) or feedback (Ashford, Blatt, & Walle, 2003). Thus, consistent with Bakker et al. (2012), who argued that proactive individuals increase their resources, this study found that employees with a proactive personality are inclined to proactively change elements in their work environment by seeking job resources and challenges.

In line with this, the results of this study also show that RBSE has a positive significant relationship with seeking job resources and challenges. That is, the more self-efficacious one feels the more he or she will seek for job resources and challenges. Previous research also showed that perceived self-efficacy relates to proactive (work) behaviors (Speier & Frese, 1997; Tims et al., 2014). Hence, it is most likely that self-efficacious employees proactively seek for more variety in their work and/or seek for opportunities to learn new things than employees scoring low on self-efficacy. This result reinforces the important relationship between role breadth self-efficacy and beneficial proactive work behaviors such as job crafting.

For both proactive personality and RBSE a positive relationship with job crafting was expected, also including reducing job demands. However, results of this study show that this only applies for job crafting in the form of seeking job resources and challenges, as no significant relationship with reducing job demands was found for both individual factors. An explanation for this could be found in the conservations of resources (COR) theory (Hobfoll, 1989). COR theory is a model

of human motivation, which presupposes that acquiring and accumulating resources is a pivotal drive that initiates and maintains an individual's behavior. According to the theory, people are motivated to gain, retain, and maintain resources and will experience stress when these resources are lost, threatened with loss, or when an individual fails to gain a resource after substantive investment in it (Hobfoll, 1989, 2001). Examples of this are being fired (loss of resources), job insecurity (resources are threatened), and an imbalance of efforts and the subsequent reward (the resources invested do not lead to the expected benefits). Contrary to job crafting theory (Tims & Bakker, 2010), which proposes that employees deal with stressful conditions (job demands) by decreasing them, COR states that employees have to invest their resources to deal with stressful situations or conditions and prevent negative outcomes for themselves (Hobfoll, 2001). This is however partly in line with the JD-R model (Schaufeli & Bakker, 2004), that states that job resources give employees energy and they are one of the factors that reduce the effect of job demands (Bakker & Demerouti, 2007, 2008, 2014; Schaufeli & Bakker, 2004). For example, an employee may ask for social support from a colleague (job resource) in the form of assistance with a task to deal with (temporary) work overload. Moreover, employees accumulate resources they can use to withstand, overcome, or accommodate threats (Hobfoll, 2002). An example of this is that an employee learns new competencies and/or skills to make sure that his or her employability increases, which reduces the risk that he or she will be laid off (losing resources). Consequently, employees who possess greater resources will also be able to gain more resources, creating a 'gain spiral'. For instance, the aforementioned increased employability does not only reduce this risk of being laid off, but also creates possibilities for being promoted. Promotion often leads to a better job that offers opportunities for development, which again positively affects resources. Contrary to gain spirals, 'loss spirals' mean that people who already lack resources are likely to lose even more. For example, this is the case for employees who have a burnout as lacking resources lead to diminishing levels of energy, making it even more difficult for an employee to acquire resources (Hobfoll & Freedy, 1993). Hence, according to COR theory the positive relationship between the individual factors and seeking behavior is a consequence of employees wanting to gain, retain and maintain resources to feel good. Moreover, the non-relationship with reducing job demands can then also be explained by this gain spiral, as employees who are in a gain spiral will not need to pay any attention to the job demands because they either do not experience any or they solve them by increasing job resources. In line with this, it might then be the case that employees that constantly reduce job demands are in a loss spiral. Accordingly, these employees might not increase job challenges and resources because they either do not notice them or do, for example, not experience challenges as resources but as demands.

Focusing on a high-involvement system in general, this study found a significant positive relationship between high-involvement HR and seeking job resources and challenges, and no significant relationship with reducing job demands. This is in line with the reasoning that states that high involvement HR leads to greater flexibility and proactivity (Wood & De Menezes, 2011), in this case in the form of seeking job resources and challenges. However, as with the individual factors, this is not the case for reducing job demands. Again, an explanation for this might be that the high-involvement HR system offer the employees many options to seek for resources, leading to a gain

spiral. As a consequence, employees do not feel the urgency to reduce demands as they do not experience them or because they solve them by seeking for more challenges or job resources.

Additional analyses reveal that, when focusing on the four dimensions of high-involvement HR, there are specific dimensions that lead to specific job crafting behavior. First, it appears that seeking job resources and challenges is mainly dependent on reward, as only this dimension has a significant positive relationship with this type of job crafting. Moreover, regarding reducing job demands power has a negative significant influence. In other words, compared to employees that have the feeling that they are not rewarded, employees who experience that they get rewarded for their behavior at work will seek more for job resources and challenges. On the other hand, employees that feel more empowered, compared to those that feel not empowered, will not reduce their job demands.

The positive relationship between reward and seeking resources and challenges might be explained by the influence of orientation. As aforementioned, Wrzesnieuwski and Dutton (2001) argue that employees change components of their jobs so it better fits their individual work motivation. These motivations are a result of the orientation people hold towards work (Wrzesniewski & Dutton, 2001). Wrzesniewski, Mccauley, Rozin, and Schwartz (1997) found three orientations employees hold towards their work, namely: job, career, and calling orientation. Employees with a job orientation see their work as a means of earning money and are focused on the financial reward. On the contrary, when they see work as a calling, the focus of the employee is on fulfillment and enjoyment. Lastly, employees with a career orientation are focused on development and personal progression. Employees will craft their job to create a fit between this orientation and their job (Wrzesniewski et al., 1997). In this, it might be that reward is positively related to seeking resources as it is in line with either the job and/or career orientation of the employee. Reward consisted of items measuring financial reward and recognition (e.g. I am satisfied with the amount of recognition I receive when I do a good job). These items are in line with their financial and/or career orientation. In their qualitative study, Wrzesniewski and Dutton (2001) found that financially oriented employees focused mainly on tasks that gave them the highest possible rewards. Hence, they were crafting their job in a way to receive fewer tasks. In addition, career oriented employees are likely to craft their job by increasing interactions with employees who are more influential than they are, to become visible in higher layers of the organization. Moreover, the research of Leana et al. (2009) indicates that only career orientation is a motive for job crafting. Knowing this, it might be the case that career and job oriented employees are mainly driven by rewards, either in the form of financials or in the form of recognition, which means that reward is positively related to seeking resources and challenges. Moreover, those that already receive high rewards and still seek for job resources and challenges might then have (switched to) a calling orientation and seek for fulfillment and enjoyment,

With regard to the relationship between power and job crafting, power concerns the degree to which employees feel a certain degree of control regarding the decisions affecting their work (Lawler, 1986, 1992). This can be compared to job autonomy, which concerns the formal freedom employees have in their job (Evans & Fischer, 1992). Contrary to previous research (Ashford & Black, 1996; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012), this study did not find a positive relationship

between job autonomy (power) and seeking resources and challenges. That is, it was not found that employees who work in an environment in which they have control in and over their work will seek more for job resources and challenges. However, in line with Petrou et al. (2012) it was found that more power leads to less reduction of demands. In other words, the more empowered employees feel, the less they will reduce their demands and avoid their challenges. Empowering employees in the form of making it possible for them to plan and control their own work apparently gives them the power to work with challenging demands instead of avoiding them. This could for example mean that an emotionally intense colleague is not avoided by the empowered employee. Instead, he or she will approach this person. Reason for this negative relationship between power and reducing demands could be that an empowered employee realizes that he or she is trusted by the manager and/or organization and does not want to neglect that.

With regard to the interrelationship between the personal and contextual factors, neither a synergy, nor a substitution effect between HR and the individual factors proactive personality and RBSE was found in explaining job crafting. An explanation for this could be that while the context consists of the actual HR practices in place, this study measured the perceived HRM of the employees. As different people have different perceptions of the same situation this could have had an influence on the results of this study. However, another explanation could be that both a substitution and a synergistic effect did take place, but because both effects occurred within the same dataset they cancelled each other out in the results. It could namely be that for one group of employees the individual factors do substitute the high-involvement HR practices in explaining job crafting behavior, whereas for another group there is a synergistic relationship between the two. For example, individuals that are really focused on their work and making a career often have a clear vision on where they want to go. Accordingly, they will proactively seek for job resources and challenges that will contribute to these career goals. In such a case, a HR system that provides these job resources will be helpful, however it is not needed to stimulate them to craft a job. Hence, the individual factors will substitute HR in explaining job crafting. Moreover, this might also be the case in a competitive work context, where employees want to outperform other colleagues. To stay in the game, already proactive and self-efficacious employees will then also want to develop themselves and therefore craft their job. On the contrary, following trait activation theory, there might also be cases in which there is a synergistic effect between HR and the individual factors proactive personality and RBSE. Focusing for example on an employee that has a young family and, regarding work-life balance, he or she is merely focused on life at home. Although this person has a proactive personality and feels self-efficacious and will (therefore) craft some parts of the job, he or she will be less of a job crafter as the focus is not primarily at work. However, in such a case a high-involvement HR system could have an influence on job crafting behavior by also activating the proactive personality and/or RBSE, that were less present because of the focus on home.

**THEORETICAL IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH**
This study contributes to existing job crafting literature as it makes clear how individual and contextual factors positively or negatively influence job crafting. It gives insight into the relationship between

RBSE, proactive personality, high-involvement HR and job crafting. In this, the effect of high-involvement HR on job crafting was not studied before. This study shows that high-involvement HR does have an influence on job crafting behavior. In particular, reward influences seeking resources and powers influences reducing demands. In addition, the interrelationship between the individual factors proactive personality and RBSE, and the contextual factor high-involvement HR were also not studied before. In this research no interrelationship was found. These results have important theoretical implications, which also provide interesting foci for future research.

Contrary to previous research (Tims & Bakker, 2010; Tims et al., 2012) the results of this study did not present job crafting as one construct, consisting of the four job crafting strategies. Instead, two forms of job crafting could be defined, one focused on increasing job resources and challenges and the other on decreasing job demands. Reason for this distinction could be that while seeking resources and challenges is focused on challenging yourself, stimulating learning and personal development (Bakker & Demerouti, 2007, 2008, 2014; Schaufeli & Bakker, 2004), reducing demands is more about avoiding certain tasks and/or people and doing less. A theoretical implication coming out of this is that apparently job crafting cannot be seen as balancing the job demands and resources by either seeking for them or reducing them. Rather, job crafting can actually occur in two forms: seeking structural and social resources as well as challenging demands, and reducing hindering job demands. Subsequently, results show that both the individual factors and the high involvement HR have a different effect on the different types of job crafting. Moreover, all concepts have a positive relationship with seeking resources and challenges, and no or a negative relationship with reducing job demands. These results suggest that although reducing demands theoretically is useful for dealing with hindering job demands (Tims & Bakker, 2010), it does not seem to work for the employees in the present study. In line with this, research shows that avoiding demands is an emotion focused coping mechanism, that is considered unsuccessful (Terry, Callan, & Sartori, 1996). Actively confronting the demand(s) rather than avoiding helps to adapt to them. What we might learn from this is that these two different kinds of job crafting are also caused by different antecedents. Whereas seeking for challenges and resources in this case is a consequence of positive factors such as proactive personality, role breadth self-efficacy and HRM, reducing demands may be a consequence of rather negative factors such as insecurity and having the feeling that one is really busy. Subsequently, accumulating positive factors might then lead to the before mentioned gain spiral (Hobfoll & Freedy, 1993), while the negative factors may lead to a loss spiral. These findings address a call for more research on (1) the exact composition of the concept job crafting, and (2) which antecedents cause what type of job crafting. Moreover, these results trigger the question if both job crafting forms can exist at the same time. In this study, no significant relationship was found between the two, suggesting that they do not influence each other and can exist at the same time. However, in line with the results of this study and COR theory (Hobfoll & Freedy, 1993) it seems that employees that are in a gain spiral do not reduce demands. This suggests that those who seek for challenges and resources do not reduce demands at the same time. Another interesting direction for future research would therefore be the existence of seeking job resources and challenges and reducing job demands at the same time.

Given that job crafting is about changing the work (environment) proactively (Grant & Parker, 2009), including all relevant work parts employees proacitvely change (Tims et al., 2012), and given that proactive employees are characterized as those who influence their environment and change things (Bateman & Crant, 1993; Fuller & Marler, 2009) it might be the case that, instead of seeking for resources and reducing demands, people that craft their job seek and actively solve. That is, they seek for resources and challenges and actively solve the hindering job demands. Moreover, in line with the COR theory (Hobfoll, 1989, 2001, 2002), it might be the case that employees either seek for challenges and job resources or reduce the job demands, depending on whether they are in the gain or loss spiral. Hence, future research should focus on both types of job crafting and study when each particular type of job crafting behavior is enacted. In addition, future studies should study job crafting as a consequence of both positive (e.g. proactive personality) and negative (e.g. role ambiguity) antecedents to find out if specific antecedents lead to specific types of job crafting. Moreover, the focus on the influence of COR theory and the (negative and positive) antecedents can be combined. In case different antecedents, for example RBSE versus role ambiguity, do lead to different types of job crafting, if this is the case differs depending on the state one is in. As employees in a gain spiral have accumulated job resources it could be that they are able to deal with negative antecedents, therefore not experiencing them or being able to deal with them by seeking more resources, while others will deal with them by decreasing them.

Focusing on the influence of high-involvement HR on job crafting, this study found that HR does have an influence on job crafting behavior, in particular, that reward influences seeking resources and power influences reducing demands. This implies that job crafting is not only self-initiated behavior (Berg et al., 2010; Petrou et al., 2015; Tims & Bakker, 2010), but is something that can be influenced by the context, in this case by HR practices. This adds to current research, as it shows that job crafting is not only self-initiated behavior, but something that can also be influenced. For future research, it might therefore be interesting to find out what other factors influence job crafting behavior. For instance, it might be that managers or supervisors play an essential role in stimulating favorable job crafting behaviors. Moreover, the influence of colleagues or the relationship one holds with other colleagues, on one's job crafting might be interesting. Again, combining this in future research, e.g. leadership, HR system and (an) individual factor(s), will give more insight in how different factors interrelate with each other in explaining job crafting.

Furthermore, with regard to measuring commitment and performance many studies emphasize that human resource practices should be studied in bundles (Jiang, Lepak, Hu, et al., 2012; Lado & Wilson, 1994; Lepak et al., 2006; Macduffie, 1995; Wright & McMahan, 1992). However, in this study there was found that only one of the four factors influenced seeking behavior and also only one influenced reducing behavior. This might mean that, with regard to job crafting behavior, HR practices do not necessarily work together in a bundle and that certain individual HR practices have a direct influence on employee behavior. This is an interesting finding for both HR and job crafting research. For future research in HR it might, for example, be interesting to explore in which cases human resource practices should be studied in bundles and when individually. Moreover, for job crafting it might be interesting to further explore which type of practices lead to which type of job

crafting behavior. In the case of this study, reward increased seeking resources and power decreased reducing demands. In this, reward was measured with items about financials rewards and recognition. As these dimensions had a positive influence on seeking challenges and resources it will be interesting to study which part of reward exactly encourages people to seek for more challenges and resources. In case of recognition it could then be investigated if this is recognition throughout the company, on a team level or individual level. Knowing this will give more clarity on how to encourage job crafting. Moreover, focusing on the decreasing influence of power on reducing job demands, job crafting is associated with beneficial outcomes for both the job crafter and organization (Bakker et al., 2003, 2012; Tims, Bakker, Derks, et al., 2013). However, Petrou et al. (2012) found a negative link between reducing job demands and resources. Hence, it might be beneficial for a company that an employee does not actively reduce job demands. Knowing this, it might be important to support employees with HR practices in such a way that they are encouraged to seek for challenges and resources, but also to actively approach their demands. Studying this by including both HR practices, job crafting behaviors and outcomes for the organization and/or individual it might then become clear how job crafting is supported best from a HR point of view while also supporting organizational goals.

For the interrelationship, as said above, the manner of measuring the perceived HRM may have influenced the results through which no interrelationship was found. For future research it is therefore recommended to measure high-involvement HR in a different manner. For example, by actually checking which HR practices are in place within an organization. Moreover, regarding both the synergistic and the substitution effect taking place within the same data set, it might be interesting to study the interrelationship between HR and individual factors such as proactive personality and RBSE with specific groups of people or in specific contexts. For example, focused on a competitive context such as a traineeship setting, or focused on employees that have a (young) family. By doing this, it will become clear if, depending of the context or type of person, there can either be an interrelationship in the form of a synergy or a substitution between individual and contextual factors in explaining job crafting.

**LIMITATIONS**

As with all scientific studies, this study has some limitations. First, there are some limitations with regard to the results of this study as the data in this study was collected via snowball sampling. This resulted in a sample consisting largely of the network of the researcher. As a consequence, generalization is limited, as it might not be representative for the entire population of the Netherlands (Atkinson & Flint, 2001). For example, in this sample 80.8% was higher educated (table 1), which does not resemble the 28.4% (CBS, 2017) of highly educated people in the labor force. This is the same for the relatively low average age of 37.2 years, which is approximately five years younger than the average age of the Dutch labor force (CBS, 2017). For future research this could be overcome by using a larger and more randomized sample.

Second, the generalizability of the research could be improved by executing it in a specific sector or organization. As the participating respondents all worked in different organizations, different factors could have influenced their answers which could also influence generalizability. For example, if

one respondent works in an organization in which he or she is not supported, which means that he or she will also not craft his or her job on the social level. Or in another organization the work pressure might be high, which influences job crafting behavior.

Third, this research measured proactive personality and a type of proactive behavior, job crafting. People were asked to participate in the research, however there were no consequences if they decided not to take part. In other words, filling in the survey asked for a certain amount of proactivity. Therefore, a limitation of this study might be that the overall score of proactivity and job crafting behavior are higher than the Dutch population.

Fourth, another potential limitation of the design is the use of self-report, which can cause common method bias. That is, found relations might be attributable to the measurement method used, instead of to the constructs themselves. However, self-report is recommended for assessing psychological concepts regarding needs, perceived job characteristics, or job satisfaction (Conway & Lance, 2010), categories in which our study variables could be placed.

Fifth, using self-reports and therefore self-perceptions might also have increased social desirability bias. This is the case when the respondent gives socially desirable answers: answers that enhance certain desirables characteristic or answers in which the presence of certain socially undesirable characteristics are left out (Ones, Viswesvaran, & Reiss, 1996). For future research, both the social desirability bias and common method bias could be overcome by including other forms of reports, for example from a colleague or a manager.

Lastly, this study has contributed to giving insights in the influence of HR and individual factors on job crafting. However, inferences cannot be made about how this develops over time. Although cross-sectional research is a suitable method for data gathering of a large (sub)group, it is only measured once (Levin, 2006). For future research, it would be advisable to conduct a longitudinal research, qualitative or quantitative, to study how job crafting behavior develops over time (Babbie, 2013).

**PRACTICAL IMPLICATIONS**

Despite the limitations, this study provides insights in which factors contribute to job crafting behavior, which also has some practical implications. Demerouti (2014) already stated that an organization can facilitate and create conditions in which job crafting can arise and this study actually provides organizations with several insights in the factors that could stimulate job crafting.

First, starting at the beginning, organizations should hire proactive employees. As the results of this study show that employees scoring high on proactive personality are more inclined to craft their job than those scoring lower, this will lead to more job crafters and therefore more job crafting within the organization. The organization can find out if a job applicant is proactive by including a short questionnaire in the solicitation procedure that tests proactive personality. For example, the questions asked in this study or another questionnaire measuring proactive personality.

Second, organizations should enhance the role breadth self-efficacy of their employees. The results of this show that more RBSE leads to seeking more job challenges and resources. That is, the more employees believe that they are capable to do the work that they need to do, the more they will

craft their job. Whereas proactive personality is a rather stable state and hence something that cannot be influenced that easily (Crant, 2000), role breadth self-efficacy is mainly dependent on the context (Parker, 1998). Therefore, organizations can and should foster these beliefs and give them the (self-)confidence that they have the right capabilities to successfully do their work. On an individual level managers could for example enhance this by giving positive feedback to employees when they have executed their work well. Moreover, they can do this by giving employees more autonomy and letting them know that this is because they trust that he or she can do this. In addition, when employees think that their capabilities are inadequate, they can help them to find a solution for this. For example, by finding the right training through which certain knowledge and/or skills can be improved.

Third, organizations should reward their employees, either financially or by giving them recognition. As it appears that rewards lead to an increase in job crafting in the form of seeking job resources and challenges, organization could increase job crafting behavior by rewarding their employees. Financially, managers could for example reward employees who make an extra effort by giving them a bonus. Moreover, an organization could raise the salary of an employee or give him or her a promotion when he or she performs well. Regarding recognition, a reward could already be that the organization or a manager lets an employee know that he or she is performing well. In addition, more formally, an organization could implement a performance appraisal system, on which well performing employees will score high.

Fourth, organizations should give employees the power (autonomy) to do things on their own. According to the results of this study more empowered employees will reduce their job demands less. That is, instead of reducing demands, for example avoiding a person that is emotionally intense or demanding, they will actively approach them. In the case of the emotionally intense or demanding person an employee would for example go and talk with that person and find out how to work with him or her. An organization could empower employees by giving them the authority to fulfill his or her job responsibilities or giving them enough input in deciding how to accomplish his or her work. For example, managers could set a goal with an employee and subsequently give him or her the freedom to decide on his or her own how to attain that goal.

Overall, the findings of this study suggests that organizations should design work in such a way that employees are empowered and motivated (Grant & Parker, 2009) to craft their job and make their work fit with their values, strengths, and interests.

# CONCLUSION

To conclude, in this study there was questioned in which way individual factors (pro-activity and self-efficacy) and HR practices (high-involvement HRM) interrelate in explaining job crafting. Based on the results of this study this question can be answered with: they do not interrelate with each other in explaining job crafting. There was found that the individual factors proactive personality and RBSE, and the contextual factor high-involvement HR have a direct influence on job crafting. However, no interrelationship between these factors in the form of a synergy, following trait activation theory, or the individual factors substituting the context factor, following substitute for leadership theory, was found. This could be because there is no interrelationship between these factors in explaining job crafting. However, it might also be the case that this interrelationship differs per person and/or context, which makes that both effects occurred within the same dataset and they therefore cancelled each other out. Nevertheless, this study does provide interesting insights. For example, an interesting finding is that individual HR practices had a direct influence on job crafting, namely reward had a direct influence on seeking job resources and challenges and power on reducing job demands. This is an interesting finding as previous research suggests that HR should be measured in bundles as they all influence each other. However, this result implies that individual practices do have an influence on employee behavior, suggesting that individually, HR practices can have an influence. Another interesting finding is the two different types of job crafting found: seeking job resources and challenges and reducing job demands. These results imply that job crafting is not about balancing different types of crafting, but there are actually two different forms of job crafting behavior an employee can enact. Also, the fact that no interrelationship was found in explaining job crafting is of interest as this might mean there is no interrelationship, or that it depends on context or a person. Overall, these and other findings provide several directions for future research.

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# APPENDICES

## APPENDIX A - SURVEY

| What | Dutch | English |
|---|---|---|
| | Hallo, | Hello, |
| **Introduction text** | Fijn dat u tijd vrij wilt maken om mee te werken aan mijn afstudeeronderzoek dat ingaat op **job crafting gedrag:** activiteiten die u onderneemt om uzelf te ontwikkelen en/of uw werk aangenamer te maken**.**<br><br>Doel van dit onderzoek is om meer duidelijkheid te krijgen over of en hoe uw job crafting gedrag wordt beïnvloed door uzelf en de organisatie waarin u werkt. Dit onderzoek ik aan de hand van deze enquête, waarin u vragen krijgt die ingaan op uw persoonlijkheid; wat u doet om uzelf te ontwikkelen en/of uw werk aangenamer te maken; en hoe uw organisatie u ondersteunt.<br><br>Het invullen van de vragenlijst zal ongeveer 15 minuten duren, u zult merken dat de vragen vrij vlot in te vullen zijn. Houdt hierbij het volgende in gedachten:<br>x Alle vragen gaan over uw eigen beleving; er zijn geen goede of foute antwoorden.<br>x Deelname is geheel vrijwillig en u mag op ieder moment stoppen. Echter, zijn de vragen die u dan wel heeft beantwoord niet geldig omdat de vragenlijst niet in zijn geheel is ingevuld.<br>x De verstrekte informatie zal strikt vertrouwelijk behandeld worden: de data zal niet te herleiden zijn naar individuele personen en wordt enkel voor dit onderzoek gebruikt.<br><br>Als dank voor het invullen van de vragenlijst kunt u een cadeaukaart van €2.- winnen! Vul aan het einde van de vragenlijst uw e-mailadres in (die uiteraard **niet** gekoppeld wordt aan uw data) en misschien bent u 1 van de gelukkigen.<br><br>**Klik op volgende (>>)** om de enquête te starten en akkoord te gaan met bovenstaande voorwaarden<br><br>Bij voorbaat dank voor uw deelname!<br>Carmen Smeenk<br><br>Ps. Vragen? Deze beantwoord ik natuurlijk met plezier! Aan het einde van de vragenlijst heeft u de mogelijkheid om ze te stellen. | Thanks for taking some time to fill in this survey for my graduation research. This research is focused on **job crafting behavior**: the activities you undertake to develop yourself and/or to make you work more enjoyable.<br><br>Purpose of this research is to get more clarity on if and how your job crafting behavior is influenced by yourself and the organization you work at. I study this by means of this survey, in which different questions will be asked regarding your personality; the activities you undertake to develop yourself and/or to make you work more enjoyable; and how your organization supports you in this process.<br><br>It will take approximately 15 minutes to fill in the survey, you will notice that the questions are quite easy to complete. While doing this keep the following in mind:<br>x All questions are about your own experience, there are no right or wrong answers!<br>x Participation is voluntary and you may quit at any given time, however your responses will not be valid if the survey is not filled out completely.<br>x Your responses will be anonymous and confidential: the data will not be redirected to individuals and will only be used for this research.<br><br>In return for your efforts you can win a €2.- gift card! Just leave your email at the end of this survey and maybe you will be lucky. The email address will be stored separately from you responses.<br><br>**Click next (>>)** to start the survey and to agree with the terms above.<br><br>Thanks in advance for participating!<br>Carmen Smeenk<br><br>Ps. Questions? You will have the availability to ask them at the end of the survey. |
| **Proactive personality (Claes et** | Als ik iets zie wat me niet bevalt, verander ik het. | If I see something I don't like, I fix it. |

| | | Als ik ergens in geloof, dan ga ik ervoor, ongeacht de kans van slagen. | No matter what the odds, if I believe in something I will make it happen. |
|---|---|---|---|
| **Proactive personality (Claes et al., 2005)**<br><br>**Scale from 1(=completely disagree) to 5 (= completely agree),** | | Ik vind het leuk voor mijn ideeën op te komen zelfs als anderen er tegen zijn. | I love being a champion for my ideas, even against others' opposition. |
| | | Ik ben goed in het opmerken van kansen/mogelijkheden. | I excel at identifying opportunities. |
| | | Ik ben altijd op zoek naar hoe dingen beter kunnen. | I am always looking for better ways to do things. |
| | | Als ik in een idee geloof, zal niets me ervan weerhouden dit idee werkelijkheid te laten worden. | If I believe in an idea, no obstacle will prevent me from making it happen. |
| **Role breadth self efficacy (Parker, 1998)**<br><br>**Scale from 1 (= not all confident) to 5 (=very confident) one would feel.** | | Een lang lopend probleem analyseren om het op te lossen. | Analyzing a long-term problem to find a solution |
| | | Uw eigen team/collega's vertegenwoordigen bij een vergadering met het (hoger)management. | Representing your work area in meetings with senior management |
| | | Nieuwe procedures ontwikkelen voor uw vakgroep/team | Designing new procedures for your work area |
| | | Helpen met doelen stellen voor uw eigen werk/vakgebied | Helping to set targets and goals in your area |
| | | Contact opnemen met mensen buiten uw organisatie, bijv. klanten of leveranciers, om problemen te bespreken. | Contacting people outside the company (e.g., suppliers, customers) to discuss problems |
| | | Een presentatie geven aan (een deel van) uw collega's. | Presenting information to a group of colleagues |
| | | Een voorstel doen om dingen te veranderen bij mensen op een andere afdeling. | Visiting people from other departments to suggest doing things differently. |
| **Job crafting (Tims et al., 2012)**<br><br>**Scale from 1 to 5: 1 = never, 2 = seldom, 3 = regularly, 4 = often, 5 = very often** | Increasing structural resources | Ik probeer mezelf te ontwikkelen | I try to develop my capabilities |
| | | Ik probeer mijzelf bij te scholen | I try to develop myself professionally |
| | | Ik probeer nieuwe dingen te leren op mijn werk | I try to learn new things at work |
| | | Ik zorg ervoor dat ik mijn capaciteiten optimaal benut | I make sure that I use my capabilities to the fullest |
| | | Ik zorg ervoor dat ik zelf kan beslissen hoe ik mijn werk doe | I decide on my own how I do things |
| | Increasing social resources | Ik vraag mijn leidinggevende om mij te coachen | I ask my supervisor to coach me |
| | | Ik vraag of mijn leidinggevende tevreden is over mijn werk/prestaties | I ask whether my supervisor is satisfied with my work |
| | | Ik zoek inspiratie bij mijn leidinggevende | I look to my supervisor for inspiration |
| | | Ik vraag anderen om feedback over mijn functioneren | I ask others for feedback on my job performance |

| | | Ik vraag collega's om advies over hoe ik mijn prestaties kan verbeteren. | I ask colleagues for advice |
|---|---|---|---|
| **Job crafting (Tims et al., 2012)**<br><br>**Scale from 1 to 5: 1 = never, 2 = seldom, 3 = regularly, 4 = often, 5 = very often** | Increasing challenging demands | Als er een interessant project voorbij komt bied ik mezelf proactief aan als projectmedewerker | When an interesting project comes along, I offer myself proactively as project co-worker |
| | | Als er nieuwe ontwikkelingen zijn, sta ik vooraan om ze te horen en uit te proberen. | If there are new developments, I am one of the first to learn about them and try them out |
| | | Als het rustig is op mijn werk, zie ik dit als een kans om nieuwe taken op te pakken. | When there is not much to do at work, I see it as a chance to start new projects |
| | | Ik neem geregeld extra taken op me hoewel ik daar geen extra salaris voor ontvang | I regularly take on extra tasks even though I do not receive extra salary for them |
| | | Ik probeer mijn werk uitdagender te maken door de onderliggende verbanden van mijn werkzaamheden in kaart te brengen | I try to make my work more challenging by examining the underlying relationships between aspects of my job |
| | Decreasing hindering demands | Ik zorg ervoor dat ik minder geestelijk/mentaal inspannend werk hoef te verrichten | I make sure that my work is mentally less intense |
| | | Ik zorg ervoor dat ik minder emotioneel inspannend werk moet verrichten | I try to ensure that my work is emotionally less intense |
| | | Ik zorg ervoor dat ik niet te veel hoef om te gaan met personen wier problemen mij emotioneel raken | I manage my work so that I try to minimize contact with people whose problems affect me emotionally |
| | | Ik zorg ervoor dat ik niet te veel hoef om te gaan met mensen die onrealistische verwachtingen hebben | I organize my work so as to minimize contact with people whose expectations are unrealistic |
| | | Ik probeer ervoor te zorgen dat ik minder moeilijke beslissingen in mijn werk hoef te nemen | I try to ensure that I do not have to make difficult decisions at work |
| | | Ik zorg ervoor dat ik me niet lange tijd achter elkaar hoef te concentreren | I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once |
| **Riordan et al. (2005)**<br><br>**Scale from 1(=completely disagree) to 5 (= completely agree.).** | Power | Ik heb voldoende bevoegdheden om mijn werk goed uit te kunnen voeren. | I have sufficient authority to fulfill my job responsibilities |
| | | Ik heb genoeg inspraak in hoe ik mijn werk volbreng. | I have enough input in deciding how to accomplish my work |
| | | Ik krijg genoeg vrijheid om te bepalen hoe ik mijn werk doe. | I have enough freedom over how I do my job |
| | Information | De doelen van de organisatie worden duidelijk gecommuniceerd naar de werknemers. | Company goals and objectives are clearly communicated to employees |
| | | De interne communicatie met het (top)management is effectief. | The channels for employee communication with top management are effective |
| | | Het topmanagement wordt voldoende | Top management is adequately informed of |

| | | | |
|---|---|---|---|
| | | geïnformeerd over de belangrijke dingen die spelen op mijn afdeling. | the important issues in my department |
| | | Het beleid en de procedures van de organisatie worden duidelijk gecommuniceerd naar de medewerkers. | Company policies and procedures are clearly communicated to employees |
| | | Werk-gerelateerde informatie krijg ik vaak "via-via" te horen. | I often have to rely on the grapevine to get job-related information (reverse) |
| **Riordan et al. (2005)**<br><br>**Scale from 1(=completely disagree) to 5 (= completely agree.).** | Reward | Meestal ontvang ik voldoende informatie over veranderingen in mijn werkgroep/team op tijd. | Most of the time I receive sufficient notice of changes affecting my work group |
| | | Ik ben tevreden met de erkenning die ik krijg wanneer ik mijn werk goed doe. | I am satisfied with the amount of recognition I receive when I do a good job |
| | | Over het algemeen vind ik dat mijn organisatie medewerkers beloont die extra inspanning leveren. | Generally I feel this company rewards employees who make an extra effort |
| | | Wanneer ik mijn werk goed doe is het waarschijnlijk dat ik een loonsverhoging krijg.. | There is a strong link between how well I perform my job and the likelihood of receiving a raise in pay/salary |
| | | Wanneer ik mijn werk goed doe is het waarschijnlijk dat ik een (zeer) goede beoordeling krijg voor mijn functioneringsgesprek.. | There is a strong link between how well I perform my job and the likelihood of receiving high performance appraisal ratings |
| | | Wanneer ik mijn werk goed doe is er een grotere kans dat ik promotie krijg. | If I perform well, I am more likely to be promoted |
| | Knowledge | Ik krijg voldoende training om mijn werk uit te kunnen voeren | I receive sufficient training to do my job |
| | | Opleiding en training zijn een integraal onderdeel van de organisatiecultuur. | Education and training are integral parts of this company's culture |
| | | Ik heb voldoende werk gerelateerde trainingen ontvangen. | I have had sufficient/adequate job-related training |
| | | Als ik aan zou geven dat ik meer werk gerelateerde opleiding/training nodig zou hebben dan zou de organisatie dit aanbieden | If I felt that I needed more job-related training, the company would provide it |
| **Demographic variables** | | Wat is uw geslacht?<br>  o  Vrouw<br>  o  Man | What is your gender?<br>  o  Female<br>  o  Male |
| | | Wat is uw geboortejaar? | What is your year of birth? |
| | | Wat is de hoogste opleiding die u heeft voltooid?<br>  o  Basis onderwijs<br>  o  Middelbaar onderwijs<br>  o  MBO | What is the highest degree or level of education you have completed?<br>  o  Primary school<br>  o  High school<br>  o  Intermediate vocational education |

| | |
|---|---|
| o HBO | (MBO) |
| o WO | o Higher vocational education (HBO) |
| | o Academic education (University) |
| Tot welke bedrijstak hoort het bedrijf waar u bij werkt? | What branche does the organization you're working at belong to? |
| o Landbouw, bosbouw en visserij | o Agriculture, forestry and fishing |
| o Winning van delfstoffen | o Mining and quarrying |
| o Industrie | o Manufacturing |
| o Productie en distributie van en handel in elektriciteit, aardgas, stoom en gekoelde lucht | Electricity, gas, steam and air conditioning supply |
| o Winning en distributie van water; afval- en afvalwaterbeheer en sanering | o Water supply; sewerage, waste management and remediation activities |
| o Bouw | o Construction |
| o Groot- en detailhandel (incl. reparatie van auto's) | o Wholesale and retail trade (repair of motor vehicles and motorcycles also included) |
| o Vervoer en opslag | o Transportation and storage |
| o Horeca (incl. Logies) | o Accommodation and food service activities |
| o Informatie en communicatie | o Information and communication |
| o Financiële instellingen | o Financial institutions |
| o Verhuur van en handel in onroerend goed | o Renting, buying and selling of real estate |
| o Advisering, onderzoek en overige specialistische zakelijke dienstverlening | o Consultancy, research and other specialized business services |
| o Verhuur roerende goederen en overige zakelijke dienstverlening | o Renting and leasing of tangible goods and other business support services |
| o Openbaar bestuur, overheidsdiensten en verplichte sociale verzekeringen | o Public administration, public services and compulsory social security |
| o Onderwijs | o Education |
| o Gezondheids- en welzijnszorg | o Human health and social work activities |
| o Cultuur, sport en recreatie | o Culture, sports and recreation |
| o Overige dienstverlening | o Other service activities |
| Hoeveel medewerkers werken er in deze organisatie? (schatting) | How many employees work at this organization? |
| o Minder dan 50 medewerkers | o Less than 50 employees |
| o 50 t/m 250 medewerkers | o 50 to 250 employees |
| o Meer dan 250 medewerkers | o More than 250 employees |
| Hoe lang werkt u al bij uw huidige werkgever? (in jaren) | How many years have you been working at the organization you're currently working |

| | | at? (in years) |
|---|---|---|
| | Hoelang werkt uw al in uw huidige functie? (in jaren) | How many years have you been working in your current position? (in years) |
| | Wat voor soort contract heeft u?<br>○ Tijdelijk contract<br>○ Vast contract<br>○ Contract via een uitzendbureau | What type of employment contract do you have?<br>○ Fixed-term contract<br>○ Permanent contract<br>○ Contract via an employment-agency |
| | Hoeveel uur werkt u gemiddeld per uur? | On average, how many hours do you work per week? |

**APPENDIX B – ORGANIZATION BRANCHE**

| Organization branche | N | % |
|---|---|---|
| Agriculture, forestry and fishing | 2 | 1.0 |
| Mining and quarrying | 1 | .5 |
| Manufacturing | 9 | 4.7 |
| Electricity, gas, steam and air conditioning supply | - | - |
| Water supply; sewerage, waste management and remediation activities | 1 | ,5 |
| Construction | 5 | 2,6 |
| Wholesale and retail trade (repair of motor vehicles and motorcycles also included) | 12 | 6,3 |
| Transportation and storage | 3 | 1,6 |
| Accommodation and food service activities | 5 | 2,6 |
| Information and communication | 24 | 12,5 |
| Financial institutions | 3 | 1,6 |
| Renting, buying and selling of real estate | - | - |
| Consultancy, research and other specialized business services | 17 | 8,9 |
| Renting and leasing of tangible goods and other business support services | | |
| Public administration, public services and compulsory social security | 18 | 9,4 |
| Education | 19 | 9,9 |
| Human health and social work activities | 58 | 3.2 |
| Culture, sports and recreation | 1 | ,5 |
| Other service activities | 14 | 7,3 |

**Table 11** *Summary of multiple linear regression analysis for variables predicting seeking job resources and challenges (N=191)*

| | Model 1 | | | Model 2 | | | Model 3 | | | Model 4 | | | Model 5 | | | Model 6 | | | Model 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | B | SE B | β | B | SE B | β | B | SE B | β | B | SE B | β | B | SE B | β | B | SE B | β | B | SE B | β |
| Constant | .61 | .32 | | .69 | .79 | | -.36 | .74 | | 1.42 | .75 | | .22 | .52 | | 1.18 | .60 | | .69 | .59 | |
| **Control variables** | | | | | | | | | | | | | | | | | | | | | |
| Education | .04 | .04 | .06 | .04 | .04 | .06 | .04 | .04 | .06 | .03 | .04 | .06 | .03 | .04 | .06 | .04 | .04 | .06 | .04 | .04 | .06 |
| Org. size | -.03 | .04 | -.04 | -.02 | .04 | -.04 | -.03 | .04 | -.04 | -.02 | .04 | -.03 | -.03 | .04 | -.05 | -.02 | .04 | -.03 | -.02 | .04 | -.04 |
| Org. tenure | .00 | .01 | -.06 | .00 | .01 | -.06 | -.01 | .01 | -.07 | .00 | .01 | -.06 | .00 | .01 | -.07 | .00 | .01 | -.06 | .00 | .01 | -.06 |
| Func. tenure | -.01 | .01 | -.11 | -.01 | .01 | -.11 | -.01 | .01 | -.10 | -.01 | .01 | -.12 | -.01 | .01 | -.11 | -.01 | .01 | -.11 | -.01 | .01 | -.11 |
| Contract type | -.02 | .04 | -.03 | -.02 | .04 | -.03 | -.02 | .04 | -.03 | -.03 | .04 | -.04 | -.03 | .04 | -.03 | -.02 | .04 | -.03 | -.02 | .04 | -.03 |
| Working hours | .00 | .00 | .09 | .00 | .00 | .09 | .01 | .00 | .09 | .01 | .00 | .09 | .00 | .00 | .09 | .00 | .00 | .09 | .00 | .00 | .09 |
| **Independent variables** | | | | | | | | | | | | | | | | | | | | | |
| Proactive Personality | .25 | .06 | .26*** | .25 | .06 | .26*** | .26 | .06 | .27*** | .25 | .06 | .26*** | .25 | .06 | .26*** | .25 | .06 | .26*** | .25 | .06 | .26*** |
| RBSE | .32 | .05 | .38*** | .32 | .05 | .38*** | .32 | .05 | .38*** | .31 | .05 | .37*** | .33 | .05 | .39*** | .31 | .05 | .37*** | .32 | .05 | .38*** |
| Power | -.01 | .05 | -.01 | -.03 | .19 | -.03 | .24 | .18 | .29 | -.20 | .17 | -.25 | -.01 | .05 | -.01 | -.01 | .05 | -.01 | -.01 | .05 | -.01 |
| Information | .00 | .04 | -.01 | -.03 | .22 | -.04 | .00 | .04 | .00 | -.01 | .04 | -.01 | .12 | .14 | .18 | -.17 | .15 | -.24 | -.01 | .04 | -.01 |
| Reward | .14 | .05 | .19** | .14 | .05 | .19** | .44 | .21 | .62* | .14 | .05 | .19** | .26 | .14 | .36 | .13 | .05 | .18** | .11 | .16 | .16 |
| Knowledge | .04 | .04 | .06 | .04 | .04 | .06 | .05 | .04 | .07 | -.19 | .20 | -.30 | .05 | .04 | .08 | -.13 | .15 | -.19 | .02 | .15 | .03 |
| **Interaction variables** | | | | | | | | | | | | | | | | | | | | | |
| Power * Information | | | | .01 | .06 | .05 | | | | | | | | | | | | | | | |
| Power * Reward | | | | | | | -.08 | .06 | -.61 | | | | | | | | | | | | |
| Power * Knowledge | | | | | | | | | | .06 | .05 | .49 | | | | | | | | | |
| Information * Reward | | | | | | | | | | | | | -.04 | .04 | -.30 | | | | | | |
| Information * Knowledge | | | | | | | | | | | | | | | | .05 | .04 | .42 | | | |
| Reward * Knowledge | | | | | | | | | | | | | | | | | | | .01 | .05 | .06 |
| R² | | .51 | | | .51 | | | .52 | | | .51 | | | .51 | | | .51 | | | .51 | |
| F for change in R² | | 18.74*** | | | .01 | | | 2.13 | | | 1.44 | | | .92 | | | 1.24 | | | .02 | |

*. Regression is significant at the 0.05 level (2-tailed); **. Regression is significant at the 0.01 level (2-tailed); ***. Regression is significant at the 0.001 level (2-tailed)

**Table 12** *Summary of multiple linear regression analysis for variables predicting reducing job demands (N=191)*

| | Model 1 | | | Model 2 | | | Model 3 | | | Model 4 | | | Model 5 | | | Model 6 | | | Model 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β | *B* | *SE B* | β |
| Constant | 3.63 | .50 | | 3.63 | 1.22 | | 3.59 | 1.15 | | 2.92 | 1.16 | | 4.73 | .80 | | 3.46 | .94 | | 4.23 | .91 | |
| **Control variables** | | | | | | | | | | | | | | | | | | | | | |
| Education | -.03 | .05 | -.05 | -.03 | .05 | -.05 | -.03 | .05 | -.05 | -.03 | .05 | -.04 | -.02 | .05 | -.03 | -.03 | .05 | -.05 | -.03 | .05 | -.05 |
| Org. size | -.05 | .06 | -.07 | -.05 | .06 | -.07 | -.05 | .06 | -.07 | -.05 | .06 | -.07 | -.04 | .06 | -.05 | -.05 | .06 | -.07 | -.05 | .06 | -.06 |
| Org. tenure | -.01 | .01 | -.08 | -.01 | .01 | -.08 | -.01 | .01 | -.08 | -.01 | .01 | -.08 | -.01 | .01 | -.07 | -.01 | .01 | -.08 | -.01 | .01 | -.07 |
| Func. tenure | .00 | .01 | .02 | .00 | .01 | .02 | .00 | .01 | .02 | .00 | .01 | .03 | .00 | .01 | .03 | .00 | .01 | .02 | .00 | .01 | .02 |
| Contract type | .02 | .06 | .02 | .02 | .06 | .02 | .02 | .06 | .02 | .02 | .06 | .02 | .02 | .06 | .03 | .02 | .06 | .02 | .02 | .06 | .03 |
| Working hours | .01 | .01 | .13 | .01 | .01 | .13 | .01 | .01 | .13 | .01 | .01 | .12 | .01 | .01 | .13 | .01 | .01 | .13 | .01 | .01 | .13 |
| **Independent variables** | | | | | | | | | | | | | | | | | | | | | |
| Proactive Personality | -.13 | .09 | -.11 | -.13 | .09 | -.11 | -.13 | .09 | -.11 | -.12 | .09 | -.11 | -.11 | .09 | -.10 | -.12 | .09 | -.11 | -.12 | .09 | -.10 |
| RBSE | -.11 | .08 | -.11 | -.11 | .08 | -.11 | -.11 | .08 | -.11 | -.10 | .08 | -.11 | -.13 | .08 | -.14 | -.11 | .08 | -.11 | -.12 | .08 | -.13 |
| Power | -.21 | .08 | -.22** | -.21 | .29 | -.22 | -.20 | .27 | -.21 | -.04 | .27 | -.04 | -.21 | .08 | -.22** | -.21 | .08 | -.22** | -.21 | .08 | -.22 |
| Information | -.12 | .07 | -.15 | -.12 | .35 | -.15 | -.12 | .07 | -.15 | -.12 | .07 | -.15 | -.47 | .21 | -.59* | -.07 | .24 | -.09 | -.13 | .07 | -.16 |
| Reward | .06 | .07 | .08 | .06 | .07 | .08 | .07 | .33 | .09 | .06 | .07 | .08 | -.28 | .21 | -.34 | .06 | .07 | .08 | -.13 | .25 | -.15 |
| Knowledge | .11 | .06 | .15 | .11 | .06 | .15 | .11 | .06 | .15 | .32 | .31 | .42 | .09 | .06 | .12 | .16 | .24 | .22 | -.07 | .23 | -.09 |
| **Interaction variables** | | | | | | | | | | | | | | | | | | | | | |
| Power * Information | | | | .00 | .09 | .00 | | | | | | | | | | | | | | | |
| Power * Reward | | | | | | | .00 | .09 | -.02 | | | | | | | | | | | | |
| Power * Knowledge | | | | | | | | | | -.05 | .08 | -.38 | | | | | | | | | |
| Information * Reward | | | | | | | | | | | | | .11 | .07 | .73 | | | | | | |
| Information * Knowledge | | | | | | | | | | | | | | | | -.02 | .07 | -.11 | | | |
| Reward * Knowledge | | | | | | | | | | | | | | | | | | | .06 | .07 | .40 |
| R² | | .12 | | | .12 | | | .12 | | | .13 | | | .14 | | | .13 | | | .13 | |
| F for change in R² | 3.85** | | | .00 | | | .00 | | | .47 | | | 3.01 | | | .05 | | | .63 | | |

\*. Regression is significant at the 0.05 level (2-tailed); \*\*. Regression is significant at the 0.01 level (2-tailed); \*\*\*. Regression is significant at the 0.001 level (2-tailed)