A Work Project, presented as part of the requirements for the Award of a Masters Degree in Management from the NOVA – School of Business and Economics.

# MANAGING TALENT THROUGH DEVELOPMENTAL JOB EXPERIENCES (DJE): THE MEDIATING ROLE OF DJE BETWEEN HPWS AND EMPLOYEES' OUTCOMES

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A Project carried out on the Management course, under the supervision of

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January 2015

**ABSTRACT**

In the competitive landscape of the 21st century, effectively managing human capital in firms is considered to be a potential source of sustainable performance. Therefore, in this study, we tested the influence of high-performance work systems, as a talent management tool, on employees' experience of developmental jobs. Then, we tested the mediating effect of such experiences on employees' engagement, exhaustion, performance and turnover intention. With a sample of 254 employees of a diversity of companies and sectors of activity, our findings demonstrated that high-performance practices increase engagement, via the promotion of developmental experiences of fit, which improves performance and decreases turnover intention. Besides, those practices do not control for the pressure dimension of the developmental job experiences that increases exhaustion and turnover intention despite not worsening performance.

**Keywords:** High-Performance Work Systems, Developmental Job Experiences of Fit and Pressure, Engagement, Exhaustion, Performance, Turnover Intention

## TABLE OF CONTENTS

## 1. INTRODUCTION

In the competitive landscape of the 21st century, companies need to continuously adapt in order to cope with the changing environment that results from both globalization and technological evolution. Therefore, in this context of "increased rates of technological change, diffusion and hypercompetitive rivalry" (Guthrie, Flood, Liu and MacCurtain, 2009), understanding the mechanisms that allow companies to build sustainable competitive advantage is becoming an increasingly important research field, namely with respect to the Human Resource Management (HRM) practice.

Indeed, scholars have been relating the HRM function with organizational performance for decades, suggesting a more strategically oriented mindset in the HRM literature (Collings and Mellahi, 2009). Thus, Strategic Human Resource Management (SHRM), the "pattern of planned HR deployments and activities intended to enable an organization to achieve its goals" (Wright and McMahan 1992, p. 298 cited by Guthrie et al., 2009), is a developing stream of empirical research that argues in favor of "carefully designed and congruent human resources practices focused on improving organizational effectiveness and performance" (Boselie, Dietz, and Boon, 2005; Boxall and Purcell, 2008 cited by Collings and Mellahi, 2009), that is, competitive advantage.

Accordingly, some theoretical approaches have been recently developed for the purpose of deepen the knowledge on organizations' sources of competitive advantage. Thus, relying on the resource-based view (RBV) of the firm, sustainable competitive advantage is considered to stem "from combining idiosyncratic resources that are valuable, rare, inimitable and nonsubstitutable (VRIN)" (Barney, 1991; Penrose, 1959; Wernerfelt, 1984 cited by Messersmith, Lepak, Patel and Gould-Williams, 2011). Following this standpoint, as mentioned by Guthrie et al. (2009) and Messersmith et al.

(2011), there is a growing number of scholars advocating that human capital and the manner in which it is managed in firms is a potential source of competitive advantage.

Human capital management practices are commonly referred to as Talent Management (TM), "an integrated set of processes, programs, and cultural norms in an organization designed and implemented to attract, develop, deploy, and retain talent to achieve strategic objectives and meet future business needs" (Silzer and Dowell, 2010 cited by Dries, 2013). In fact, more and more HR practitioners believe that talent management is one of the most important human capital challenges currently faced by organizations (e.g. Ashton and Morton, 2005 cited by Dries, 2013), since (1) "traditional sources of competitive advantage are losing their edge whereas human talent is a renewable resource not easily copied or stolen by competitors" (Iles, 1997 cited by Dries, 2013) and (2) "attracting and retaining talented people is becoming increasingly difficult as a result of specific demographic and psychological contract trends" (Tucker, Kao, and Verma, 2005 cited by Dries, 2013). As a result, it becomes apparent the importance of investing in talent management practices within companies in order to enhance their stock of human capital and ultimately improve performance.

Building on this, we intend to study the influence of perceived high-performance work systems, as a talent management tool, on both managerial and nonmanagerial employees' experience of developmental jobs. Then, the mediating effect of such experiences on employees' engagement, exhaustion and, ultimately, on performance and turnover intention will be analyzed.

In this way, we aim to deepen the knowledge on the mechanisms through which developmental job experiences contribute to manage and retain talent within companies and, eventually, to create sustainable competitive advantage and performance.

## 2. LITERATURE REVIEW

### 2.1. High-Performance Work Systems (HPWS)

Over the past years, a developing stream of research on performance-oriented human resource practices has been trying to cope with the need to understand the mechanisms through which human capital is more effectively managed and firms' sustainable competitive advantage is build up (e.g. Jiang, Takeuchi and Lepak, 2013; Takeuchi, Chen and Lepak, 2009; Takeuchi, Wang, Lepak and Takeuchi, 2007).

Accordingly, high-performance work systems (HPWS), also known as high-commitment or high-involvement practices systems, have been the subject of a considerable number of studies that demonstrably relate specific HRM practices with higher levels of collective human capital (e.g. Arthur, 1994; Guthrie, 2001; Huselid, 1995; Wright and Snell, 1991 cited by Takeuchi et al., 2007) and, as a result, with enhanced firm performance (e.g. Bartram et al., 2007; Becker and Huselid, 2006; Boxall and Macky, 2007 cited by Ang, Bartram, McNeil, Leggat and Stanton, 2013; Guthrie et al., 2009; Messersmith et al., 2011; Takeuchi et al., 2007).

As such, in addition to highlighting the contribution of Delaney and Huselid (1996) that "drew attention to the value of HRM practices that emphasize hiring individuals of higher quality, or of raising the level of skills and abilities among the current workforce, or both", Takeuchi et al. (2007) have found that HPWS were positively related with the level of collective human capital in Japanese organizations, as well as with performance. Similarly, as referred by Gong, Chang and Cheung (2010), the meta-analysis conducted by Combs et al. (2006) proved a positive relationship between HPWS and various indicators of organizational performance.

All these findings give support to the scholars' view of HPWS as a set of different but interconnected human resource practices designed to improve employees' competences, attitudes and motivation (Huselid, 1995 cited by García-Chas, Neira-Fontela and Castro-Casal, 2014; Datta, Guthrie and Wright, 2005; Huselid, 1995; Way, 2002; Wood and Wall, 2002 cited by Takeuchi et al., 2007) in such a way that employees become a source of sustainable competitive advantage.

Following this, after an extensive research review, Takeuchi et al. (2007) suggested that HPWS main practices include rigorous and selective staffing, extensive training and development, flexible job assignments, developmental and merit-based performance appraisal, competitive compensation and extensive benefits. Indeed, if well perceived, all these practices create both conditions and incentives for employees to perform better through improved ability (KSAO's), enhanced motivation and increased opportunities to contribute. Thereby, in compliance with the AMO framework mentioned in several recent studies (e.g. Jiang et al., 2013), HPWS practices are expected to be positively related to employees' in-role performance at the individual level.

In fact, as referred by García-Chas et al. (2014), there is a consensus in the literature regarding the positive impact of HPWS on employees' attitudes and behaviors, which ultimately improve individual performance (i.e. Batt, 2002 cited by Collings and Mellahi, 2009). Moreover, according to the norm of reciprocity and social exchange perspective (Gouldner, 1960; Blau, 1964 cited by Jiang et al., 2013), when employees perceive HPWS practices as expressing appreciation, investment and recognition (Takeuchi et al., 2007), they are expected to reciprocate through organizational citizenship behaviors (OCB), that is, individual discretionary behaviors, not directly or explicitly recognized by the formal reward system, that in the aggregate promote the

effective functioning of the organization (Organ, 1988:4 cited by Collings and Mellahi, 2009). As stressed by Takeuchi et al. (2007), such individual employee's social exchange relationship has been found to be positively related to extra-role behaviors in several studies.

Therefore, considering the prevailing view in the literature that, for HPWS to affect employee performance, intended practices need to be correctly perceived by employees (Ang et al., 2013), we expect the following:

***Hypothesis 1a:*** *Perceived use of HPWS practices is positively related to self-reported individual performance (In-role Performance and OCB).*

Another individual outcome of central importance for the understanding of organizations' competitive advantage, turnover intention (as a proxy for actual turnover), is related to the retention of high-performing employees. HPWS are not only designed to manage everyone to high performance but also to retain developed talent, which is why competitive compensation and extensive benefits exist.

In fact, as referred by García-Chas et al. (2014), several researchers have recently analyzed the relation between HPWS practices and turnover and/or employee retention. Thus, after invoking the landmark study of Huselid (1995) whose main finding was that a greater use of HPWS practices was related with decreased employee turnover and higher levels of profitability, Guthrie et al. (2009) concluded that attendance and retention were both positively related to HPWS. So, in view of the social exchange theory previously mentioned, we anticipate the following:

***Hypothesis 1b:*** *Perceived use of HPWS practices is negatively related to employees' turnover intention.*

## 2.2. Developmental Job Experiences (DJE)

Among others, the implementation of HPWS practices is aimed at providing employees with opportunities to learn and to develop their skills through flexible job assignments, extensive development and developmental performance appraisal. Actually, "it has been observed that on-the-job experience constitutes the most effective form of employee learning and development" (McCall, 2004; Morrison and Hock, 1986 cited by Aryee and Chu, 2012) that ultimately has an impact on performance and in other important organizational outcomes, as mentioned by Wouters and Buyens (2004).

Developmental job experiences (DJE) are commonly described as the roles, responsibilities and tasks encountered in jobs that instigate employees to learn, grow and undergo personal change (McCauley and Brutus, 1998). So, according to McCauley, Ruderman, Ohlott and Morrow (1994), job experiences are believed to be developmental by being challenging and providing both the opportunity and the motivation for employees to learn. As such, based on an extensive review of the increasing literature on the subject, McCauley et al. (1994) identified the following three categories of developmental job characteristics: "job transitions", "task-related characteristics" and "obstacles".

On the one hand, "job transitions" refers to the degree to which employees are expected to deal with unfamiliar situations and responsibilities as a result of changes in work roles in terms of content, status or location (Nicholson, 1984 cited by McCauley et al., 1994). Therefore, the developmental component of such transitions relies on the need employees have to deal with new peers, subordinates or superiors and to cope with more demanding problems. On the other hand, development resulting from "task-related characteristics" relates to the challenges of the job itself that stem from "creating

change" – starting from scratch, fixing or improving something, usually with some ambiguity about how to achieve it -, "high-levels of responsibility" - in terms of visibility, impact, scope and scale and difficulty - and "non-authority relationships" – situations in which employees with little formal authority have to gain the cooperation of others to achieve goals.

Nonetheless, as mentioned by Dong, Seo and Bartol (2014), empirical evidence on the topic has been inconsistent since some studies support the predicted development of employees while others point out that "highly challenging DJE can incur unintended negative consequences". In fact, McCauley et al. (1994) concluded that "obstacles" - adverse job situations such as a difficult boss, an unsupportive working environment or difficult economic circumstances - were strongly related to negative psychological states and perceptions of development, indicating that the reduction of discomfort might not be a strong motivator for learning as initially hypothesized.

Elaborating on this inconsistency, Dong et al. (2014) argued that DJE would be positively related to both pleasant feelings and unpleasant feelings, supporting such hypotheses on the transactional stress theory. Accordingly, employees perceive DJE either as a "challenge", due to their obvious high developmental potential, or as a "threat" to personal or professional growth, because they place "employees in dynamic and exigent work settings within which they must solve complex problems and make choices under conditions of risk and uncertainty" (DeRue and Wellman, 2009: 861 cited by Dong et al., 2014). Therefore, building on this theory, we can argue that DJE are perceived as having both a fit dimension – in which employees appraise job experiences as challenging but purposely designed to fit their individual needs and characteristics and to allow them to grow - and a pressure dimension – in which job experiences are

appraised as threats because they promote employees' development through stressful situations that are often related to lack of support and/or individual consideration.

Briefly, HPWS practices are designed to encourage employees' development by promoting DJE of fit and minimizing the consequent dimension of pressure. Therefore, we expect the following:

***Hypothesis 2a:*** *Perceived use of HPWS practices is positively related to employees' perception of the fit dimension of DJE.*

***Hypothesis 2b:*** *Perceived use of HPWS practices is negatively related to employees' perception of the pressure dimension of DJE.*

### 2.3. Work Engagement & Exhaustion

With the purpose of developing and retaining talent, HPWS practices provide DJE that not only enhance employees' knowledge and effectiveness but also promote positive feelings, attitudes and behaviors at work. Accordingly, Luthans (2002) stressed the importance of studying positive organizational behaviors (POB), the "positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace". As such, Schaufeli, Bakker and Salanova (2006) described work engagement as one important POB, a positive, fulfilling work-related state of mind characterized by vigor (high levels of energy and mental resilience while working, willingness to invest effort in work, persistence even in the face of difficulties), dedication (being strongly involved in work, experiencing a sense of significance, enthusiasm, inspiration, pride and challenge) and absorption (being fully concentrated and happily immersed in work which results in a difficult detachment from it).

Nevertheless, it is evenly important to understand the impact that negative emotions experienced by employees in organizations have in their attitudes. Thus, considering that DJE are usually stressful, exhaustion, which refers to the feelings of being overextended and exhausted by work, is one of the most likely outcomes (Crawford et al., 2010 cited by Dong et al., 2014).

Therefore, stemming from the concepts of DJE, work engagement and exhaustion, employees are expected to be more or less engaged and exhausted depending on the manner in which they perceive DJE. As such, we expect the following:

***Hypothesis 3a:*** *The perceived fit dimension of DJE is positively related to employees' engagement.*

***Hypothesis 3b:*** *The perceived fit dimension of DJE is negatively related to employees' exhaustion.*

***Hypothesis 4a:*** *The perceived pressure dimension of DJE is negatively related to employees' engagement.*

***Hypothesis 4b:*** *The perceived pressure dimension of DJE is positively related to employees' exhaustion.*

### 2.4. The Mediating Role of DJE between HPWS, Engagement and Exhaustion

Based on the literature review, we argued that the perceptions employees have about HPWS practices influence the perceived dimensions of fit and pressure of DJE. Hence, we considered HR practices more general variables that are designed in accordance with management policies to "shape" and organize work (Karasek and Theorell, 1990 cited by Castanheira and Chambel, 2010), e.g., providing employees with DJE. Subsequently, the relationship between the two dimensions of DJE and both engagement and exhaustion was also anticipated. As such, the implication of the previously presented

relationships is that DJE may account for the relationship between perceived HPWS and both engagement and exhaustion. Thus, we expect the following:

***Hypothesis 5a:*** *The perceived fit dimension of DJE mediates the relationship between perceived use of HPWS practices and employees' engagement.*

***Hypothesis 5b:*** *The perceived fit dimension of DJE mediates the relationship between perceived use of HPWS practices and employees' exhaustion.*

***Hypothesis 6a:*** *The perceived pressure dimension of DJE mediates the relationship between perceived use of HPWS practices and employees' engagement.*

***Hypothesis 6b:*** *The perceived pressure dimension of DJE mediates the relationship between perceived use of HPWS practices and employees' exhaustion.*

**2.5. Performance & Turnover Intention**

Following on from the mediating role of DJE between perceived HPWS and both engagement and exhaustion and considering the well founded relationship between perceived HPWS and both performance and turnover intention, we should also expect engagement and exhaustion to influence employees' in-role and extra-role performance and intention to leave organizations.

In fact, there is increasing empirical evidence that identifies work engagement as an antecedent of task performance and OCB (Bakker, Demerouti and Brummelhuis, 2012; Halbesleben, 2014; Rurkkhum and Bartlett, 2012; Shantz, Alfes, Truss and Soane, 2013). Accordingly, engaged employees experience positive emotions that promote constructive attitudes towards the organization and its stakeholders and broadened cognition associated with higher levels of creativity, attention and openness to information (Fredrickson, 2001 cited by Shantz et al., 2013). As such, Bakker and Bal (2010) found that "engaged teachers received higher ratings from their supervisors on

in-role and extra-role performance, indicating that engaged employees perform well and are willing to go the extra mile" (Bakker et al., 2012).

Moreover, as mentioned by Halbesleben (2014), researchers have found significant negative relationships between engagement and employees' turnover intention. According to the author, engaged employees may find it difficult to detach from the job mostly because they have invested so much of themselves in the job and because they identify strongly with their work. Consequently, we anticipate the following:

***Hypothesis 7a:*** *Engagement is positively related to employees' self-reported performance (In-role Performance and OCB).*

***Hypothesis 7b:*** *Engagement is negatively related to employees' turnover intention.*

On the other hand, researchers have linked exhaustion to important negative outcomes such as increased turnover of staff and propensity to leave, negative job attitudes and low levels of job performance (Moon and Hur, 2011). On the basis of an extensive literature review and in the light of the social exchange theory, Cropanzano, Rupp and Byrne (2003) suggested that employees tend to have lower job performance, less OCB and stronger turnover intentions in jobs that produce exhaustion. According to the authors, exhaustion precludes the development of high quality social exchange relationships because it can be seen as an unjustified or unfair "cost that qualifies the value of any benefits received through employment". As a result, in accordance with the findings of Halbesleben and Wheeler (2011), exhausted employees will probably resent their organizations. Therefore, we expect the following:

***Hypothesis 8a:*** *Exhaustion is negatively related to employees' self-reported performance (In-role Performance and OCB).*

***Hypothesis 8b:*** *Exhaustion is positively related to employees' turnover intention.*

### 2.6. The Research Model

In view of the reviewed literature, we developed the following research model:

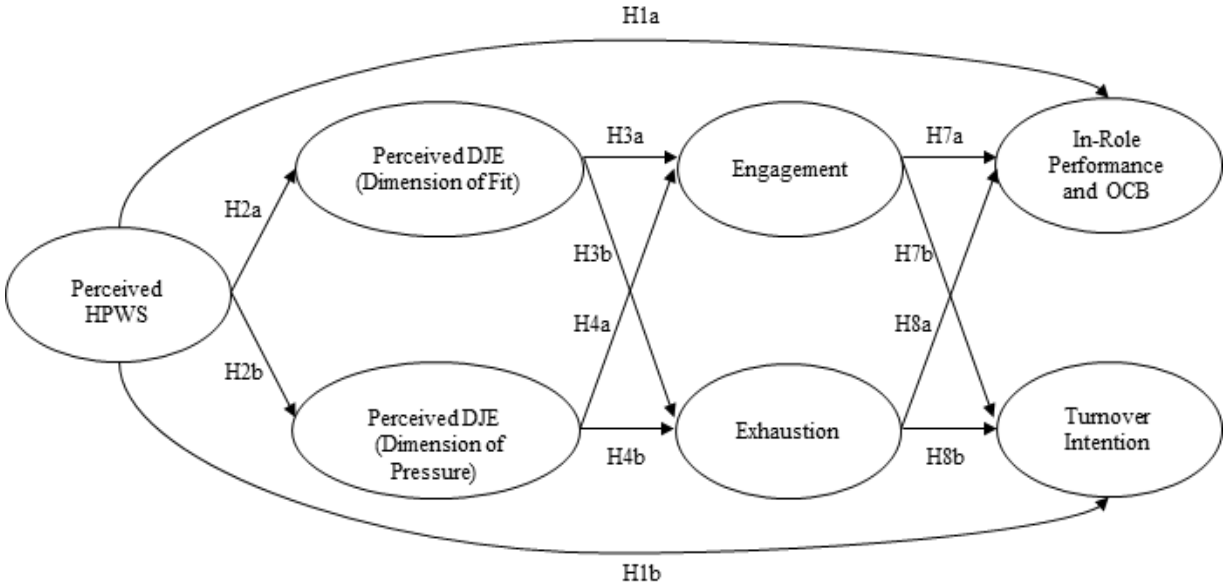


**Figure I:** The Research Model

## 3. METHODOLOGY

### 3.1. Procedure and Sample

In order to test the validity of the above mentioned hypotheses, an online survey was conducted in Portugal, targeted at working people that satisfied the following two requirements: (1) being at least eighteen years of age and (2) being working for at least six months in the company in which they were at the time of the survey (to ensure knowledge about the company's HR practices).

The survey included an initial description of the study and some additional information on its completion. Participation was voluntary and the survey was disseminated through social networks (e.g., Facebook and Linkedin) in a "snowball effect" that resulted in a total number of two hundred and fifty-four completed surveys.

The study covered fifteen districts of mainland Portugal, being Lisbon the most representative with 62.6% of the surveys. The sample includes one hundred and two

male (40.2%) and one hundred and fifty-two female (59.8%) from diverse sectors of activity (e.g., human services, communications, healthcare, transportation, retail, industry and public administration). Most participants have between eighteen and twenty-five years of age (23.2%), twenty-six and thirty-five years of age (33.9%), thirty-six and forty-five years of age (26.0%) and forty-six and fifty-five years of age (13.4%). As regards tenure, 46.9% of the respondents have been in their company for 6 months to five years, while 17.7% have been for six to ten years, 21.3% for eleven to twenty years and 11.8% for twenty-one to thirty years. With respect to qualification levels, most participants are attending or hold an undergraduate degree (47.3%), hold a master's degree (22.0%) or have completed the secondary education (27.2%).

### 3.2. Measures

*Perceived HPWS practices* were evaluated with seventeen items selected from the scale developed by Takeuchi et al., (2007). These items were scored in a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The scale measured employees' perceptions about Selection (e.g. "Selection is comprehensive (uses interviews, tests, etc.)"), Training and Development (e.g., "Training programs strive to develop firm-specific skills and knowledge"), Performance Appraisal (e.g., "Performance appraisals are based on objective, quantifiable results") and Compensation (e.g., "Employees' compensation is contingent on performance").

Following previous studies that demonstrated that one-dimensional conceptualization of HR practices was the most appropriate method to evaluate HR systems (e.g., Batt, 2002; Becker and Huselid, 1998; Delery, 1998; Takeushi et al., 2007), we proceed with an exploratory factor analysis with principal axis factoring extraction by imposing a single-factor solution. All items had factor loadings of .45 or above on a single-factor

that explained 45.45% of the total variance, with an eigenvalue of 7.73 and good internal consistency (Cronbach's Alpha = .92).

*Perceived DJE* were measured using a new instrument developed as part of this study. On the basis of the theoretical framework developed by McCauley et al. (1994) on the subject, nineteen items were scored on a five-point Likert scale, ranging from 1 (never/almost never) to 5 (always/almost always). Nevertheless, this scale was adapted with the purpose of evaluating the perceptions that all employees, in both managerial and nonmanagerial positions, have about DJE. As mentioned by Aryee and Chu (2012), "given the recognition of employees as a source of competitive advantage coupled with the observation of on-the-job experiences as an effective form of learning and development, it is important to understand nonmanagerial employees' experience of developmental or challenging jobs". Thus, the presented items included the developmental components that are common to all jobs, which implied more generic and less items than those presented in McCauley et al.'s Job Challenge Profile (JCP).

As a result, the scale measured employees' perceptions about Job Transitions (e.g. "In my job, there are significant changes in the tasks that I have to perform"), Task Characteristics (e.g. "In my job, assignments are very diverse and challenging"), Creation of Change (e.g. "In my job, I am in charge of changing something that must be improved or reformulated"), Non-authority Relationships (e.g. "In my job, there are situations in which I need to influence others, despite having little or no formal authority over them, to achieve goals for which their cooperation is essential"), High Stakes (e.g. "In my job, I have to prove myself to peers, subordinates and/or superiors"), Obstacles (e.g. "In my job, task-related obstacles (e.g. lack of resources, additional demands, negative experiences) are purposely created or directed at me so that I develop

myself") and Fit (e.g. "In my job, assignments are attributed according to the skills and knowledge I need to develop").

We proceed with an exploratory factor analysis with principal axis factoring extraction. We achieved a two-factor solution, with twelve items with factor loadings of .42 or above on the respective factor. Seven items were eliminated because they presented high factor loadings on both factors. Factor I included seven items and explained 26.33% of the total variance, with an eigenvalue of 3.52 and good internal consistency (Cronbach's Alpha = .79). Factor II included five items that explained 18.50% of the total variance with an eigenvalue of 1.86, however with lower internal consistency (Cronbach's Alpha = .65). A careful analysis of the content of the items in each factor demonstrated that Factor I (1, 2, 3, 16, 17, 18, 19) can be labeled as the "Fit Dimension" of DJE and Factor II (6, 9, 13, 14, 15) as the "Pressure Dimension" of DJE, since the respective items reflected, in some way, such employees' perceptions.

*Work engagement* was assessed using the shortened version of the Utrecht Work Engagement Scale developed by Schaufeli et al. (2006), including the scales of Vigor (e.g. "At my job, I feel bursting with energy"), Dedication (e.g. "I am proud of the work that I do") and Absorption (e.g. "I am immersed in my work"). Participants answered the nine items of the scale using a seven-point Likert scale, ranging from 1 (never) to 7 (everyday), with high scores indicating high levels of engagement. The scale presented good internal consistency (Cronbach's Alpha = .95).

*Exhaustion* was measured using five items of the Maslach Burnout Inventory – General Survey scored in a seven-point Likert scale, ranging from 1 (never) to 7 (everyday). An example item is "Working all day is really a strain for me". High scores indicate high levels of exhaustion and the scale presented good internal consistency

(Cronbach's Alpha = .91).

As concerns job performance, *in-role job performance* was assessed using four items of the Williams and Anderson's (1991) scale. An example item of the scale is "I meet the formal performance requirements of my job" and it presented a good internal consistency (Cronbach's Alpha = .86). *OCB* were measured with nine items of the scale developed by Mackenzie, Podsakoff and Podsakoff (2011), which included four items of Affiliation OCB (e.g. "I always try to lend a helping hand to those colleagues who need it"; Cronbach's Alpha = .71) and five items of Challenge OCB (e.g. "I am willing to risk disapproval in order to express my belief about what is best for the organization"; Cronbach's Alpha = .83). Participants answered all items on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

*Turnover Intention* was evaluated using four items of Gouthier and Rhein's (2011) scale which were presented on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) with high scores indicating higher turnover intention. An example item of the scale is "I intend to leave this company within the next year" and it presented good internal consistency (Cronbach's Alpha = .93).

With the exception of the DJE's scale, the questionnaire included Portuguese versions of the measures, which had already been used in previous research studies. A back translation was applied to the DJE scale used for the first time in Portuguese (Brislin, 1980). Finally, to control for possible confounding effects, gender, age, qualifications and tenure were included in the models as control variables.

### 3.3. Statistical Analysis

To test our hypotheses we used a regression-based path analysis using PROCESS software, which is a computational tool for estimating and probing interactions and the

conditional indirect effects of moderated mediation models (Hayes, 2012; Preacher, Rucker and Hayes, 2007). PROCESS is a SPSS software macro that allows the test of the indirect effects ab, with a normal theory approach (e.g., the Sobel Test) and with a bootstrap approach to calculate Confidence Intervals (CIs). According to MacKinnon, Lockwood and Williams (2004) bootstrapping is recommended. Through the application of bootstrapped CIs, it is possible to avoid power problems introduced by asymmetric and other nonnormal sampling distributions of an indirect effect. We examined a simple Model 6 in PROCESS using 1000 bootstrap samples, 95% bias-corrected bootstrap confidence intervals for all indirect effects. This model also incorporates the multistep approach proposed by Baron and Kenny (1986) and control variables were included in all analysis.

## 4. RESULTS

The means, standard deviations, reliabilities and correlations for all researched variables are presented in Table I (see Appendices). Besides, the mediation relationships between the researched variables and the respective indirect effects are described in Tables II to XVII (see Appendices).

### 4.1. Hypotheses Validity

Hypothesis 1a proposed that perceived HPWS practices are positively related to in-role performance and OCB and Hypothesis 1b that those practices are negatively related to employees' turnover intention. Table I shows that HPWS practices are positively associated with challenge OCB ($r = .26$; $p < .01$) and affiliation OCB ($r = .21$; $p < .01$), whereas the relationship between HPWS practices and in-role performance is not statistically significant ($r = .02$; $p > .05$). Therefore, Hypothesis 1a is partially supported

by the results. For its part, HPWS practices are negatively associated with turnover intention ($r = -.36$; $p < .01$) which supports Hypothesis 1b.

Hypotheses 2a and 2b anticipated that perceived HPWS practices are positively related to employees' perceptions of the fit dimension and of the pressure dimension of DJE, respectively. Table II presents a positive relationship between HPWS practices and the fit dimension of DJE ($B = .39$; $p < .001$) which supports Hypothesis 2a. Table X presents a non-statistically significant relationship between HPWS practices and the pressure dimension of DJE ($B = .07$; $p > .05$), giving no support to Hypothesis 2b.

Hypothesis 3a proposed that the fit dimension of DJE is positively related to employees' engagement whilst Hypothesis 3b predicted a negative relationship with employees' exhaustion. Table II shows that DJE of fit are positively associated with engagement ($B = .60$; $p < .001$) and Table VI presents a non-statistically significant relationship with employees' exhaustion ($B = -.26$; $p > .05$). As such, results support Hypothesis 3a but do not support Hypothesis 3b.

Hypothesis 4a anticipated that the pressure dimension of DJE is negatively related to employees' engagement while Hypothesis 4b predicted a positive relationship with employees' exhaustion. Table X presents a non-statistically significant relationship between DJE of pressure and engagement ($B = .02$; $p > .05$) and Table XIV shows a positive association with employees' exhaustion ($B = .56$; $p < .001$). Thereby, results do not support Hypothesis 4a but support Hypothesis 4b.

To test Hypotheses 5a, 5b, 6a and 6b we must ensure that, as in any mediation model, (1) the independent variable is a significant predictor of the dependent variable; (2) the independent variable is a significant predictor of the mediator; and (3) the mediator is a significant predictor of the dependent variable, while controlling for the

independent variable. Hypothesis 5a proposed that the fit dimension of DJE mediates the relationship between HPWS practices and employees' engagement. Table II shows that HPWS practices are positively related to engagement (B = .27; p < .01). In addition, Hypotheses 2a and 3a were supported, meaning that HPWS practices are a good predictor of DJE of fit and that, in turn, DJE of fit are a good predictor of engagement. For this reason, Hypothesis 5a is supported by the results.

Hypothesis 5b proposed that the fit dimension of DJE mediates the relationship between HPWS practices and employees' exhaustion. HPWS practices are a good predictor of DJE of fit (Hypothesis 2a), however, since Hypothesis 3b was not supported, DJE of fit are not related to exhaustion and cannot mediate its relationship with HPWS practices. Consequently, Hypothesis 5b is not supported.

Hypotheses 6a and 6b proposed that the pressure dimension of DJE mediates the relationship between HPWS practices and employees' engagement and exhaustion, respectively. Tables X and XIV show that HPWS practices are positively related to engagement (B = .50; p < .001) and negatively related to exhaustion (B = -.34; p < .001). Still, since Hypotheses 2b and 4a are not supported by the results, meaning that DJE of pressure are not statistically related to HPWS practices and engagement is not associated with DJE of pressure, it follows that Hypotheses 6a and 6b are not supported.

Hypothesis 7a proposed that engagement is positively related to in-role performance and OCB and Hypothesis 7b anticipated a negative association with turnover intention. Controlling for HPWS practices and either DJE of fit or pressure, Tables II to V and X to XIII show that higher levels of engagement are associated with improved in-role performance (B = .10; p < .001), challenge OCB (B = .15; p < .001) and affiliation OCB

(B = .07; p < .01) and with lower turnover intention (B = -.35; p < .001). Hence, both Hypotheses 7a and 7b are supported by the results.

Hypothesis 8a proposed that exhaustion is negatively related to in-role performance and OCB and Hypothesis 8b predicted a positive association with turnover intention. Controlling for HPWS practices and either DJE of fit or pressure, Tables VI to IX and XIV to XVII show that higher levels of exhaustion are associated with poorer in-role performance (B = -.10; p < .001), challenge OCB (B = -.10; p < .001) and affiliation OCB (B = -.05; p < .05) and with increased turnover intention (B = .14; p < .001). Hence, both Hypotheses 8a and 8b are supported by the results.

Finally, from Tables X to XVI, one important finding was that, either controlling for engagement or exhaustion, DJE of pressure are directly associated with increased in-role performance (B = .10; p < .05), challenge OCB (B = .27; p < .001) and affiliation OCB (B = .19; p < .001). When considering turnover intention, such direct relationship is verified in the expected direction only when controlling for engagement (B = .22; p < .01). This means that, despite the direct effects of engagement and exhaustion in the individual outcomes (Hypotheses 7a, 7b, 8a and 8b) and the fact that such experiences do not impact engagement (Hypothesis 4a), DJE of pressure always result in improved performance and increased intention to leave companies.

## 5. DISCUSSION

The purpose of this research was to test whether high-performance work systems promote developmental job experiences of fit or pressure and how those experiences impact employees' engagement, exhaustion, in-role performance, OCB and turnover intention. Therefore, the importance of this study relies on the lack of prior research on understanding how developmental experiences perceived by both managerial and

nonmanagerial employees impact intended outcomes of talent management. As such, we can depict the main contributions of this study to the literature.

In accordance with the social exchange theory, we found that perceived HPWS practices promote employees' organizational citizenship behaviors, as stressed by Takeuchi et al. (2007), and are related to decreased turnover intention, as mentioned by Guthrie et al., 2009. Contrary to what was expected, perceived HPWS practices are not related to task performance, which can be explained by the fact that employees always tend to positively self-evaluate their in-role performance (average evaluation of 4.38/5).

Our findings also demonstrate that, in fact, employees associate HPWS practices with a positive perception of developmental job experiences, the fit dimension of DJE. In contrast, the implementation of HPWS practices is not related to the pressure dimension of DJE perceived by employees. Accordingly, this study suggests that HPWS practices are being designed considering the constructive component of the performance-enhancement process but without controlling for its inevitable negative effects.

When considering the impact of DJE of fit, we confirmed that, when employees appraise job experiences as challenging but purposely designed to fit their individual needs and characteristics, their engagement and motivation increases. But, contrary to what was anticipated, exhaustion is not minimized which, once again, reflects HPWS practices' inability to address employees' overtiredness. Similarly, as concerns the effect of DJE of pressure, we confirmed that, when job experiences are appraised as threats because they promote employees' development through stressful situations, exhaustion increases (Dong et al., 2014). But, opposed to what was hypothesized, engagement does not decrease which is a positive outcome. Hence, this study demonstrates that the perception of the positive (negative) dimension of DJE only

influences the positive (negative) outcome, that is, engagement (exhaustion). As a result, we can conclude that intervening in both dimensions of DJE is crucial to properly manage talent within companies.

As regards the mediation hypotheses, we concluded that the fit dimension of DJE partially mediates the relationship between perceived HPWS practices and engagement but does not mediate the relationship between such practices and exhaustion. We also demonstrated that DJE of pressure do not mediate the relationship between HPWS practices and both engagement and exhaustion.

Our findings are also consistent with the literature by supporting Bakker et al.'s (2012) idea that engagement improves performance (task performance and OCB) and sustaining Halbesleben's (2014) argument that engaged employees have lower turnover intention. Similarly, as suggested by Cropanzano et al. (2003), this study confirms that employees tend to have lower job performance, less OCB and stronger turnover intentions in jobs that produce exhaustion. However, we concluded that this last effect may go unnoticed because, either in a direct or indirect way, DJE of pressure are always related to enhanced performance and increased turnover intention.

Overall, this research demonstrated that HPWS practices increase engagement (and do not affect exhaustion) via the promotion of developmental experiences of fit and, ultimately, improve in-role performance and OCB and decrease employees' turnover intention. Furthermore, those practices do not control for the pressure dimension of the developmental job experiences which increases exhaustion and turnover intention despite not worsening task performance and OCB. As such, we can state some important practical implications of this study.

### 5.1. Practical Implications

From the analysis of the results, we concluded that companies are properly designing HPWS practices to address the positive component of the performance-enhancement process. In this way, employees of all hierarchical levels have the opportunity to take advantage of developmental job experiences that take into account their individual needs and characteristics and allow them to achieve their full potential. Consequently, companies' efforts are acknowledged meaning that employees reciprocate with positive attitudes towards the organization and their coworkers (OCB), as advocated by Shantz et al. (2013), with improved performance, as stated by Bakker et al. (2012), and with lower turnover intention, as mentioned by Halbesleben (2014).

Nevertheless, our findings draw attention to the lack of HPWS practices that manage the stressful situations deriving from the performance-enhancement process. According to the results, if companies do not minimize the negative effects of those situations and do not provide all the necessary support to employees, the result will be a resentment feeling which, despite not affecting performance, will increase intention to leave and, probably, actual turnover. This is of the utmost practical importance, because the silencer effect of the pressure dimension of DJE over exhaustion not only justifies the absence of appropriate policies to address resulting problems but also alerts for the fact that companies are not retaining as much talent without even knowing why.

Concluding, despite the apparent effectiveness of implemented HPWS practices, this research demonstrates that companies should invest in HPWS practices designed to cope with the stressful situations inherent to the developmental process. By changing to a paradigm that considers both positive and negative components of the DJE, companies would act against their counterproductive outcomes and more effectively manage talent.

### 5.2. Limitations and Future Research

Even though this study gives an important contribution to the literature, it has some limitations that should be acknowledged and duly addressed in future research.

First, the dissemination of the survey in a "snowball effect" does not allow us to obtain a representative sample and to control for the work context that greatly influences employees' perceptions, attitudes and feelings, despite allowing for a diversity of experiences, sectors of activity and HR practices. Hence, future research should manage to associate diversity with representativeness and control of the work context, by studying DJE's influence in several companies of distinct sectors of activity in which management and employees of all hierarchical levels are committed to contribute.

Second, the cross-sectional nature of the research does not allow us to establish any causal relationships between the variables, meaning that efforts should be made to conduct longitudinal or time-series cross-sectional studies on this research field. Such studies would allow us to draw more relevant conclusions on turnover intention and actual turnover, since, together with exhaustion, it was found to be the most critical negative outcome deriving from DJE. Moreover, including time in the analysis is an added advantage because it is a determinant factor of employees' perceptions about the developmental process, mainly regarding its negative effects (McCauley et al., 1994).

Third, we only used self-report scales which may cause common method variance and could have biased the distribution of some variables, namely employees' in-role performance. Thus, a multi-level approach in future studies would be of value, allowing for more reliable conclusions. Finally, future research should definitely continue the development of a scale that measures the DJE of managerial and nonmanagerial employees and their perceptions of the identified dimensions of fit and pressure.

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## 7. APPENDICES

**Table I:** Descriptive Statistics and Zero-Order Correlations for All Variables (N = 254)

| | Mean | S.D. | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. | 11. | 12. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Gender (a) | 1.60 | 0.49 | | | | | | | | | | | | |
| 2. Age (b) | 3.40 | 1.09 | - .13* | | | | | | | | | | | |
| 3. Qualifications (c) | 3.50 | 1.21 | .17** | - .37** | | | | | | | | | | |
| 4. Tenure (d) | 3.05 | 1.17 | - .12 | .69** | - .36** | | | | | | | | | |
| 5. HPWS | 4.49 | 1.14 | - .22** | .04 | - .03 | .03 | | | | | | | | |
| 6. DJE Fit | 2.47 | 0.81 | - .12 | - .06 | .09 | - .02 | .55** | | | | | | | |
| 7. DJE Pressure | 3.16 | 0.76 | - .11 | - .06 | .14* | - .06 | .12 | .26** | | | | | | |
| 8. Engagement | 5.43 | 1.42 | - .02 | .17** | .02 | .18** | .39** | .44** | .05 | | | | | |
| 9. Exhaustion | 3.81 | 1.64 | .02 | - .03 | - .13* | - .05 | - .20** | - .21** | .20** | - .39** | | | | |
| 10. In-Role Performance | 4.38 | 0.53 | .19** | .00 | - .05 | - .07 | .02 | - .02 | .11 | .20** | - .26** | | | |
| 11. OCB Challenge | 3.95 | 0.69 | - .06 | .00 | - .01 | .09 | .26** | .25** | .31** | .36** | - .30** | .43** | | |
| 12. OCB Affiliation | 4.29 | 0.53 | .04 | - .04 | - .02 | - .05 | .21** | .17** | .28** | .23** | - .18** | .61** | .68** | |
| 13. Turnover Intention | 2.50 | 1.22 | - .03 | - .29** | .17** | - .31** | - .36** | - .26** | .13* | - .53** | .27** | - .07 | - .15* | - .12 |

(a) Dummy variable coded 0 if male and 1 if female

(b) Coded as an ordinal variable with 1 representing from eighteen to twenty-five years old, 2 from twenty-six to thirty-five years old, 3 from thirty-six to forty-five years old, 4 from forty-six to fifty-five years old, and 5 for more than fifty-five years old.

(c) Coded as an ordinal variable with 1 representing basic education, 2 secondary education, 3 attendance of an undergraduate degree, 4 undergraduate degree, 5 master's degree, and 6 doctoral degree.

(d) Coded as an ordinal variable with 1 representing from six months to 5 years, 2 from six to ten years, 3 from eleven to twenty years, 4 from twenty-one to thirty years, and 5 for more than thirty years.

* $\rho < .05$; ** $\rho < .01$; *** $\rho < .001$

**Table II:** The relationship between HPWS and In-role Performance, and the specific indirect effects through DJE Fit and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .11$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Engagement regressed on DJE Fit, controlling for HPWS ($a_2$ path) | .60 | .12 | 5.21 | <.001 |
| Engagement regressed on HPWS, controlling for DJE Fit ($a_3$ path) | .27 | .08 | 3.24 | <.01 |
| In-role Performance regressed on DJE Fit, controlling for HPWS and Engagement ($b_1$ path) | -.07 | .05 | -1.40 | >.05 |
| In-role Performance regressed on Engagement, controlling for HPWS and DJE Fit ($b_2$ path) | .10 | .03 | 3.74 | <.001 |
| In-role Performance regressed on HPWS, controlling for DJE Fit and Engagement (c' path) | .01 | .04 | .23 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | -.03 | .02 | -.08 | .01 |
| Effect through Engagement | .03 | .02 | .01 | .07 |
| Effect through DJE Fit and Engagement | .02 | .01 | .01 | .05 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table III:** The relationship between HPWS and OCB Challenge, and the specific indirect effects through DJE Fit and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .16$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Engagement regressed on DJE Fit, controlling for HPWS ($a_2$ path) | .60 | .12 | 5.21 | <.001 |
| Engagement regressed on HPWS, controlling for DJE Fit ($a_3$ path) | .27 | .08 | 3.24 | <.01 |
| OCB Challenge regressed on DJE Fit, controlling for HPWS and Engagement ($b_1$ path) | .05 | .06 | .70 | >.05 |
| OCB Challenge regressed on Engagement, controlling for HPWS and DJE Fit ($b_2$ path) | .15 | .03 | 4.33 | <.001 |
| OCB Challenge regressed on HPWS, controlling for DJE Fit and Engagement (c' path) | .07 | .04 | 1.61 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | .02 | .03 | -.04 | .07 |
| Effect through Engagement | .04 | .02 | .01 | .09 |
| Effect through DJE Fit and Engagement | .03 | .02 | .01 | .07 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table IV:** The relationship between HPWS and OCB Affiliation and the specific indirect effects through DJE Fit and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .09$ $p < .01$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Engagement regressed on DJE Fit, controlling for HPWS ($a_2$ path) | .60 | .12 | 5.21 | <.001 |
| Engagement regressed on HPWS, controlling for DJE Fit ($a_3$ path) | .27 | .08 | 3.24 | <.01 |
| OCB Affiliation regressed on DJE Fit, controlling for HPWS and Engagement ($b_1$ path) | .01 | .05 | .14 | >.05 |
| OCB Affiliation regressed on Engagement, controlling for HPWS and DJE Fit ($b_2$ path) | .07 | .03 | 2.73 | <.01 |
| OCB Affiliation regressed on HPWS, controlling for DJE Fit and Engagement (c' path) | .07 | .04 | 1.96 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | .00 | .02 | -.05 | .04 |
| Effect through Engagement | .02 | .01 | .00 | .06 |
| Effect through DJE Fit and Engagement | .02 | .01 | .00 | .04 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table V:** The relationship between HPWS and Turnover Intention and the specific indirect effects through DJE Fit and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .39$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Engagement regressed on DJE Fit, controlling for HPWS ($a_2$ path) | .60 | .12 | 5.21 | <.001 |
| Engagement regressed on HPWS, controlling for DJE Fit ($a_3$ path) | .27 | .08 | 3.24 | <.01 |
| Turnover Intention regressed on DJE Fit, controlling for HPWS and Engagement ($b_1$ path) | .01 | .10 | .10 | >.05 |
| Turnover Intention regressed on Engagement, controlling for HPWS and DJE Fit ($b_2$ path) | -.35 | .05 | -6.94 | <.001 |
| Turnover Intention regressed on HPWS, controlling for DJE Fit and Engagement (c' path) | -.24 | .07 | -3.54 | <.001 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | .00 | .04 | -.07 | .08 |
| Effect through Engagement | -.09 | .04 | -.18 | -.03 |
| Effect through DJE Fit and Engagement | -.08 | .02 | -.14 | -.04 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table VI:** The relationship between HPWS and In-role Performance, and the specific indirect effects through DJE Fit and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .14$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Exhaustion regressed on DJE Fit, controlling for HPWS ($a_2$ path) | -.26 | .15 | -1.76 | >.05 |
| Exhaustion regressed on HPWS, controlling for DJE Fit ($a_3$ path) | -.20 | .11 | -1.84 | >.05 |
| In-role Performance regressed on DJE Fit, controlling for HPWS and Exhaustion ($b_1$ path) | -.04 | .05 | -.76 | >.05 |
| In-role Performance regressed on Exhaustion, controlling for HPWS and DJE Fit ($b_2$ path) | -.10 | .02 | -4.70 | <.001 |
| In-role Performance regressed on HPWS, controlling for DJE Fit and Exhaustion (c' path) | .02 | .03 | .47 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | -.01 | .02 | -.06 | .02 |
| Effect through Exhaustion | .02 | .01 | -.01 | .05 |
| Effect through DJE Fit and Exhaustion | .01 | .01 | .00 | .02 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table VII:** The relationship between HPWS and OCB Challenge, and the specific indirect effects through DJE Fit and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .16$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Exhaustion regressed on DJE Fit, controlling for HPWS ($a_2$ path) | -.26 | .15 | -1.76 | >.05 |
| Exhaustion regressed on HPWS, controlling for DJE Fit ($a_3$ path) | -.20 | .11 | -1.84 | >.05 |
| OCB Challenge regressed on DJE Fit, controlling for HPWS and Exhaustion ($b_1$ path) | .11 | .06 | 1.70 | >.05 |
| OCB Challenge regressed on Exhaustion, controlling for HPWS and DJE Fit ($b_2$ path) | -.10 | .03 | -4.02 | <.001 |
| OCB Challenge regressed on HPWS, controlling for DJE Fit and Exhaustion (c' path) | .09 | .04 | 2.04 | <.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | .04 | .03 | -.01 | .09 |
| Effect through Exhaustion | .02 | .02 | -.00 | .06 |
| Effect through DJE Fit and Exhaustion | .01 | .01 | -.00 | .03 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table VIII:** The relationship between HPWS and OCB Affiliation and the specific indirect effects through DJE Fit and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .08$ $p < .01$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Exhaustion regressed on DJE Fit, controlling for HPWS ($a_2$ path) | -.26 | .15 | -1.76 | >.05 |
| Exhaustion regressed on HPWS, controlling for DJE Fit ($a_3$ path) | -.20 | .11 | -1.84 | >.05 |
| OCB Affiliation regressed on DJE Fit, controlling for HPWS and Exhaustion ($b_1$ path) | .04 | .05 | .77 | >.05 |
| OCB Affiliation regressed on Exhaustion, controlling for HPWS and DJE Fit ($b_2$ path) | -.05 | .02 | -2.36 | <.05 |
| OCB Affiliation regressed on HPWS, controlling for DJE Fit and Exhaustion (c' path) | .08 | .04 | 2.26 | <.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | .02 | .02 | -.02 | .05 |
| Effect through Exhaustion | .01 | .01 | -.00 | .03 |
| Effect through DJE Fit and Exhaustion | .01 | .00 | -.00 | .02 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table IX:** The relationship between HPWS and Turnover Intention and the specific indirect effects through DJE Fit and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .30$ $p < .001$ | | | | |
| DJE Fit regressed on HPWS ($a_1$ path) | .39 | .04 | 10.14 | <.001 |
| Exhaustion regressed on DJE Fit, controlling for HPWS ($a_2$ path) | -.26 | .15 | -1.76 | >.05 |
| Exhaustion regressed on HPWS, controlling for DJE Fit ($a_3$ path) | -.20 | .11 | -1.84 | >.05 |
| Turnover Intention regressed on DJE Fit, controlling for HPWS and Exhaustion ($b_1$ path) | -.16 | .10 | -1.66 | >.05 |
| Turnover Intention regressed on Exhaustion, controlling for HPWS and DJE Fit ($b_2$ path) | .14 | .04 | 3.44 | <.001 |
| Turnover Intention regressed on HPWS, controlling for DJE Fit and Exhaustion (c' path) | -.30 | .07 | -4.30 | <.001 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Fit | -.06 | .05 | -.16 | .03 |
| Effect through Exhaustion | -.03 | .02 | -.09 | .00 |
| Effect through DJE Fit and Exhaustion | -.02 | .01 | -.04 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table X:** The relationship between HPWS and In-role Performance, and the specific indirect effects through DJE Pressure and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .12$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Engagement regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .02 | .11 | .21 | >.05 |
| Engagement regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | .50 | .07 | 6.77 | <.001 |
| In-role Performance regressed on DJE Pressure, controlling for HPWS and Engagement ($b_1$ path) | .10 | .04 | 2.32 | <.05 |
| In-role Performance regressed on Engagement, controlling for HPWS and DJE Pressure ($b_2$ path) | .09 | .03 | 3.47 | <.001 |
| In-role Performance regressed on HPWS, controlling for DJE Pressure and Engagement (c' path) | -.02 | .03 | -.63 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .01 | .01 | -.00 | .02 |
| Effect through Engagement | .04 | .02 | .01 | .09 |
| Effect through DJE Pressure and Engagement | .00 | .00 | -.00 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XI:** The relationship between HPWS and OCB Challenge, and the specific indirect effects through DJE Pressure and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .24$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Engagement regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .02 | .11 | .21 | >.05 |
| Engagement regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | .50 | .07 | 6.77 | <.001 |
| OCB Challenge regressed on DJE Pressure, controlling for HPWS and Engagement ($b_1$ path) | .27 | .05 | 5.12 | <.001 |
| OCB Challenge regressed on Engagement, controlling for HPWS and DJE Pressure ($b_2$ path) | .15 | .03 | 4.97 | <.001 |
| OCB Challenge regressed on HPWS, controlling for DJE Pressure and Engagement (c' path) | .07 | .04 | 1.79 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .02 | .01 | -.00 | .04 |
| Effect through Engagement | .08 | .03 | .03 | .13 |
| Effect through DJE Pressure and Engagement | .00 | .00 | -.00 | .01 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XII:** The relationship between HPWS and OCB Affiliation, and the specific indirect effects through DJE Pressure and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .16$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Engagement regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .02 | .11 | .21 | >.05 |
| Engagement regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | .50 | .07 | 6.77 | <.001 |
| OCB Affiliation regressed on DJE Pressure, controlling for HPWS and Engagement ($b_1$ path) | .19 | .04 | 4.59 | <.001 |
| OCB Affiliation regressed on Engagement, controlling for HPWS and DJE Pressure ($b_2$ path) | .07 | .02 | 2.98 | <.01 |
| OCB Affiliation regressed on HPWS, controlling for DJE Pressure and Engagement (c' path) | .06 | .03 | 1.94 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .01 | .01 | -.00 | .03 |
| Effect through Engagement | .04 | .02 | .01 | .07 |
| Effect through DJE Pressure and Engagement | .00 | .00 | -.00 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XIII:** The relationship between HPWS and Turnover Intention, and the specific indirect effects through DJE Pressure and Engagement.

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .40$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Engagement regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .02 | .11 | .21 | >.05 |
| Engagement regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | .50 | .07 | 6.77 | <.001 |
| Turnover Intention regressed on DJE Pressure, controlling for HPWS and Engagement ($b_1$ path) | .22 | .08 | 2.70 | <.01 |
| Turnover Intention regressed on Engagement, controlling for HPWS and DJE Pressure ($b_2$ path) | -.35 | .05 | -7.42 | <.001 |
| Turnover Intention regressed on HPWS, controlling for DJE Pressure and Engagement (c' path) | -.25 | .06 | -4.17 | <.001 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .02 | .01 | -.00 | .05 |
| Effect through Engagement | -.17 | .04 | -.26 | -.11 |
| Effect through DJE Pressure and Engagement | -.00 | .00 | .01 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XIV:** The relationship between HPWS and In-role Performance, and the specific indirect effects through DJE Pressure and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .18$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Exhaustion regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .56 | .13 | 4.23 | <.001 |
| Exhaustion regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | -.34 | .09 | -3.82 | <.001 |
| In-role Performance regressed on DJE Pressure, controlling for HPWS and Exhaustion ($b_1$ path) | .17 | .04 | 3.82 | <.001 |
| In-role Performance regressed on Exhaustion, controlling for HPWS and DJE Pressure ($b_2$ path) | -.11 | .02 | -5.60 | <.001 |
| In-role Performance regressed on HPWS, controlling for DJE Pressure and Exhaustion (c' path) | -.01 | .03 | -.50 | >.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .01 | .01 | -.00 | .03 |
| Effect through Exhaustion | .04 | .01 | .02 | .07 |
| Effect through DJE Pressure and Exhaustion | -.00 | .00 | -.01 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XV:** The relationship between HPWS and OCB Challenge, and the specific indirect effects through DJE Pressure and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .28$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Exhaustion regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .56 | .13 | 4.23 | <.001 |
| Exhaustion regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | -.34 | .09 | -3.82 | <.001 |
| OCB Challenge regressed on DJE Pressure, controlling for HPWS and Exhaustion ($b_1$ path) | .35 | .05 | 6.74 | <.001 |
| OCB Challenge regressed on Exhaustion, controlling for HPWS and DJE Pressure ($b_2$ path) | -.15 | .03 | -6.17 | <.001 |
| OCB Challenge regressed on HPWS, controlling for DJE Pressure and Exhaustion (c' path) | .09 | .04 | 2.62 | <.01 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .02 | .02 | -.01 | .06 |
| Effect through Exhaustion | .05 | .02 | .02 | .09 |
| Effect through DJE Pressure and Exhaustion | -.01 | .00 | -.02 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XVI:** The relationship between HPWS and OCB Affiliation, and the specific indirect effects through DJE Pressure and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .18$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Exhaustion regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .56 | .13 | 4.23 | <.001 |
| Exhaustion regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | -.34 | .09 | -3.82 | <.001 |
| OCB Affiliation regressed on DJE Pressure, controlling for HPWS and Exhaustion ($b_1$ path) | .24 | .04 | 5.56 | <.001 |
| OCB Affiliation regressed on Exhaustion, controlling for HPWS and DJE Pressure ($b_2$ path) | -.08 | .02 | -3.97 | <.001 |
| OCB Affiliation regressed on HPWS, controlling for DJE Pressure and Exhaustion (c' path) | .07 | .03 | 2.41 | <.05 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .02 | .01 | -.00 | .04 |
| Effect through Exhaustion | .03 | .01 | .01 | .05 |
| Effect through DJE Pressure and Exhaustion | -.00 | .00 | -.01 | .00 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

**Table XVII**: The relationship between HPWS and Turnover Intention, and the specific indirect effects through DJE Pressure and Exhaustion

| Steps | B | *SE* | *t* | *p* |
|---|---|---|---|---|
| Total and Direct Effects $R^2 = .30$ $p < .001$ | | | | |
| DJE Pressure regressed on HPWS ($a_1$ path) | .07 | .04 | 1.59 | >.05 |
| Exhaustion regressed on DJE Pressure, controlling for HPWS ($a_2$ path) | .56 | .13 | 4.23 | <.001 |
| Exhaustion regressed on HPWS, controlling for DJE Pressure ($a_3$ path) | -.34 | .09 | -3.82 | <.001 |
| Turnover Intention regressed on DJE Pressure, controlling for HPWS and Exhaustion ($b_1$ path) | .14 | .09 | 1.50 | >.05 |
| Turnover Intention regressed on Exhaustion, controlling for HPWS and DJE Pressure ($b_2$ path) | .13 | .04 | 3.13 | <.01 |
| Turnover Intention regressed on HPWS, controlling for DJE Pressure and Exhaustion (c' path) | -.38 | .06 | -6.20 | <.001 |

| Unstandardized value | *Effect* | *SE* | *LL95%CI* | *UL95%CI* |
|---|---|---|---|---|
| Bootstrap Results for Indirect Effects | | | | |
| Effect through DJE Pressure | .01 | .01 | -.00 | .04 |
| Effect through Exhaustion | -.05 | .02 | -.10 | -.02 |
| Effect through DJE Pressure and Exhaustion | .01 | .00 | -.00 | .02 |

*Notes:* N = 254. Bootstrap sample size = 1000. LL = Lower Limit. CI = Confidence Interval. UL = Upper Limit.

# QUESTIONNAIRE

**COMPANY PRACTICES: HIGH-PERFORMANCE WORK SYSTEM (HPWS)**

| | | Strongly Disagree | Disagree | Moderately Disagree | Neither Agree Nor Disagree | Moderately Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|---|
| 1. | Employees are involved in job rotation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | Employees are empowered to make decisions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | Jobs are designed around employees' individual skills and capabilities | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | Selection is comprehensive (uses interviews, tests, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | Selection emphasizes their ability to collaborate and work in teams | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | Selection emphasizes promotion from within | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | Training is continuous | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | Training programs are comprehensive | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | Training programs strive to develop firm-specific skills and knowledge | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | Training programs emphasize on-the-job experiences | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | Performance appraisals are based on objective, quantifiable results | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | Performance appraisals include management by objective with mutual goal setting | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | Performance appraisals include developmental feedback | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | Incentives are based on team performance | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. | Compensation packages include an extensive benefits package | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. | Employees' compensations include high wages | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17. | Employees' compensation is contingent on performance | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**High-performance work system** (17 items) - Takeuchi, R., Lepak, D.P., Wang, H., and Takeuchi, H. (2007). An empirical examination of the mechanisms mediating between high-performance work systems and the performance of Japanese organizations. *Journal of Applied Psychology, 92*, 1069-1083.

**DEVELOPMENTAL JOB EXPERIENCES (DJE)**

| | | Not At All | Once In A While | Sometimes | Fairly Often | Frequently, If Not Always |
|---|---|---|---|---|---|---|
| 1. | In my job, there are significant changes in the tasks that I have to perform | 1 | 2 | 3 | 4 | 5 |
| 2. | In my job, I have the opportunity to work in other departments/sectors | 1 | 2 | 3 | 4 | 5 |
| 3. | In my job, I have the opportunity to work in other subsidiaries, cities or countries | 1 | 2 | 3 | 4 | 5 |
| 4. | In my job, I am faced with responsibilities that are new, very different and/or much broader than previous ones | 1 | 2 | 3 | 4 | 5 |
| 5. | In my job, I have to find different ways of coping with situations for which existing routines and behaviors are inadequate | 1 | 2 | 3 | 4 | 5 |
| 6. | In my job, I have to prove myself to peers, subordinates and/or superiors | 1 | 2 | 3 | 4 | 5 |
| 7. | In my job, I hold different hierarchical positions | 1 | 2 | 3 | 4 | 5 |
| 8. | In my job, I am responsible for starting something (e.g. new projects, products, services) | 1 | 2 | 3 | 4 | 5 |
| 9. | In my job, I am in charge of changing something that must be improved or reformulated | 1 | 2 | 3 | 4 | 5 |
| 10. | In my job, goals are clearly defined but there is no information on how to reach them | 1 | 2 | 3 | 4 | 5 |
| 11. | In my job, assignments are very diverse and challenging | 1 | 2 | 3 | 4 | 5 |
| 12. | In my job, I make a difference through tasks that have a real impact on the company | 1 | 2 | 3 | 4 | 5 |
| 13. | In my job, tasks are characterized by the high level of responsibility and visibility to others | 1 | 2 | 3 | 4 | 5 |
| 14. | In my job, tasks imply a high level of pressure (e.g. critical deadlines, complexity, size) | 1 | 2 | 3 | 4 | 5 |
| 15. | In my job, there are situations in which I need to influence others, despite having little or no formal authority over them, to achieve goals for which their cooperation is essential | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 16. | In my job, task-related obstacles (e.g. lack of resources, additional demands, negative experiences) are purposely created or directed at me so that I develop myself | 1 | 2 | 3 | 4 | 5 |
| 17. | In my job, assignments/projects are designed to fit my personal characteristics | 1 | 2 | 3 | 4 | 5 |
| 18. | In my job, assignments are attributed according to the skills and knowledge I need to develop | 1 | 2 | 3 | 4 | 5 |
| 19. | In my job, I have the opportunity to develop new and challenging projects | 1 | 2 | 3 | 4 | 5 |

**PERFORMANCE: IN-ROLE & EXTRA-ROLE (OCB)**

Strongly Agree
Agree
Neither Agree Nor Disagree
Disagree
Strongly Disagree

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. | I communicate my opinions about work issues to others in the work group even if their opinion is different and they disagree | 1 | 2 | 3 | 4 | 5 |
| 2. | I willingly share expertise, knowledge and information to help improve the effectiveness of others in my work group | 1 | 2 | 3 | 4 | 5 |
| 3. | I adequately complete assigned duties | 1 | 2 | 3 | 4 | 5 |
| 4. | I always try to lend a helping hand to those colleagues who need it | 1 | 2 | 3 | 4 | 5 |
| 5. | I fulfill the responsibilities specified in the job description | 1 | 2 | 3 | 4 | 5 |
| 6. | I am willing to risk disapproval in order to express my belief about what is best for the organization | 1 | 2 | 3 | 4 | 5 |
| 7. | I perform the tasks that are expected of me | 1 | 2 | 3 | 4 | 5 |
| 8. | I do not hesitate to challenge the opinions of others that I feel are directing the company in the wrong direction | 1 | 2 | 3 | 4 | 5 |
| 9. | I meet the formal performance requirements of my job | 1 | 2 | 3 | 4 | 5 |
| 10. | I improve the mood of coworkers having problems at work | 1 | 2 | 3 | 4 | 5 |
| 11. | I often try to recommend changes in organizational rules or policies that are nonproductive or counterproductive | 1 | 2 | 3 | 4 | 5 |
| 12. | I am willing to voice my concerns about the direction of the work group or company | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13. | I inform other colleagues before taking actions that might impair their ability to do their jobs | 1 | 2 | 3 | 4 | 5 |

**Challenge Oriented Citizenship Behavior** (1, 6, 8, 11, 12) and **Affiliation Oriented Citizenship Behavior** (2, 4, 10, 13) - Mackenzie, S.B., Podsakoff, P.M., and Podsakoff, N.P. (2011). Challenge oriented organizational citizenship behaviors and organizational effectiveness: Do challenge-oriented behaviors really have an impact on the organization's bottom line? *Personnel Psychology, 64,* 559-592.

**In-Role or Task Performance** (3, 5, 7, 9) - Williams, L.J., and Anderson, S.E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17,* 601–617.

**WELL-BEING: EXHAUSTION & ENGAGEMENT**

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Never
A Few Times A Year Or Less
Once A Month Or Less
A Few Times A Month
Once A Week
A Few Times A Week
Every Day

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1. | At my job, I feel bursting with energy | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | I feel happy when I am working intensively | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | I am enthusiastic about my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | At my job, I feel strong and vigorous | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. | I am immersed in my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | My job inspires me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | When I get up in the morning, I feel like going to work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | I get carried away when I am working | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | I am proud of the work that I do | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | I feel emotionally drained from my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | I feel exhausted at the end of the workday | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | I feel tired when I get up in the morning and have to face another day on the | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | job | | | | | | | |
| 13. | Working all day is really a strain for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. | I feel burned out from my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**Engagement** (*Utrecht Work Engagement (UWES),* shortened version: Vigor – 1, 4, 7; Dedication – 3, 6, 9; Absorption – 2, 5, 8) - Schaufeli, W.B., Bakker, A.B., and Salanova, M., 2006. The measurement of work engagement with a short questionnaire: a cross-national study. *Educational and Psychological Measurement, 66* (4), 701-716.

**Burnout** (*Maslach Burnout Inventory - General Survey*: Exhaustion – 10, 12, 14, 16, 18) - Maslach, C., Jackson, S., and Leiter, M. (Eds). *The Maslach Burnout Inventory – Test Manual*, 3rd ed., Consulting Psychologists Press, Palo Alto, CA, pp. 19-26.

**TURNOVER INTENTION**

Strongly Agree
Agree
Neither Agree Nor Disagree
Disagree
Strongly Disagree

| | | | | | | |
|---|---|---|---|---|---|---|
| 2. | I am starting to ask my friends/contacts about other job possibilities | 1 | 2 | 3 | 4 | 5 |
| 1. | I am seriously thinking about quitting my job | 1 | 2 | 3 | 4 | 5 |
| 3. | I intend to leave this company within the next year | 1 | 2 | 3 | 4 | 5 |
| 4. | I often look to see if positions in other firms are open | 1 | 2 | 3 | 4 | 5 |

Turnover Intention - Gouthier, M.H.J., and Rhein, M. (2011). Organizational pride and its positive effects on employee behavior. *Journal of Service Management, 22(5)*, pp. 633 – 649.