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# **The paradox of well-being at work and performance**

Authors : Nathalie Bernard, Emmanuel Abord de Chatillon, Alain Lacroux

**Abstract:** The purpose of this research paper is to identify factors for resolving the paradox between well-being at work and corporate performance.

The study approach, based on high-performance work practices, provides a way to resolve this paradox. Using a questionnaire sent to 1500 companies, this research analyses how high-performance human resources practices impact well-being at work on the one hand and corporate performance on the other hand, through the perceptions of HR professionals.

Thus, certain HR practices (career planning, participation in decision-making, extensive training, reduction in status distinction) appear to be virtuous.

The originality of this contribution is to identify the human resource practices that could make it possible to combine well-being at work and corporate performance.

**Keywords:** well-being at work, paradox, high-performance work practice

**Sustainable Development Goals (SDG):** Good health and well-being for people

## **Introduction**

Are organizations able to produce both performance and well-being at work? Examining the relationship between the two phenomena gives contrasting results. While most authors interested in this question show that employee well-being benefits performance, a few point to the absence of a link (Iaffaldano and Muchinsky, 1985; Wright and Staw, 1999) or a reverse effect, indicating that performance leads to job satisfaction (Lawler and Porter, 1967).

In fact, a detailed examination of the relationship reveals a paradox: well-being and performance seem not only complementary but also interdependent, interrelated and fundamentally distinct. This problem is both theoretical and empirical. On a theoretical level, how can this paradox be approached to understand how to promote well-being at work? This theoretical difficulty becomes empirical when it comes to understanding how to act on performance without sacrificing well-being and vice versa. Paradoxes are inherent in organizations. Combining workplace well-being and business performance has become a strategic issue for organizations. However, the literature does not provide indications on how to approach workplace well-being and corporate performance as a paradox or how to manage it.

The objective of this contribution is therefore to identify factors that could resolve the paradox between workplace well-being and corporate performance and stimulate a virtuous cycle (Smith and Lewis, 2011). Thus, the aim is to clarify the potential determinants of this paradox by using an analysis of high-performance work practices (HPWPs) to provide managers with elements that promote both employee well-being and corporate performance. To this end, after a literature review that will provide a better understanding of the paradox

between well-being and performance and the value of relying on HPWPs, this study will analyse the data from a survey of 273 French companies, conducted in 2018, that identified their HR practices and presented an assessment of employee well-being and company performance.

This paper will (1) describe the paradox of well-being and performance, (2) examine the concept of high-performance human resources practices (HPHRPs) and how they can be combined into a system, (3) describe the methodology used and (4) present an analysis of the data, showing which HPHRPs are most relevant according to HR professionals' perceptions of combining well-being at work and company performance.

## **1. Well-Being at Work and Performance: a Paradoxical Situation**

### *How is a paradox defined?*

Paradox has been widely studied in management sciences (Quinn and Cameron, 1988; Smith and Lewis, 2011) although it remains a concept without consensus. A paradox refers to the simultaneous presence of two mutually exclusive elements (Quinn and Cameron, 1988) with an impossibility of choice (Lüscher and Lewis, 2008). It describes contradictory but interdependent organizational elements that seem logical in themselves, but inconsistent and in opposition when they are together, and that last over time (Lewis, 2000; Smith and Lewis, 2011). Paradoxes can take several forms, each of which affects a specific element of an organization and leads to specific tensions (see Table 1).

Table 1. Types of paradox (Sources: Lewis, 2000; Lüscher and Lewis, 2008; Smith and Lewis, 2011)

| Types of paradox | Organizational items              | Tensions between   |
|------------------|-----------------------------------|--|
| Learning         | Knowledge                         | Old/new  |
| Belonging        | Identity, interpersonal relations | Individual/collective; different values                        |
| Organizing       | Processes                         | Collaboration/competition; autonomy/control                    |
| Performing       | Objectives                        | Conflicting managerial requirements (e.g. financial vs social) |

***Workplace well-being and company performance: is there a paradox?***

Many researchers have studied workplace well-being (4027 article abstracts in the EBSCO databases mention the concept in January 2019) and company performance (28,843 article abstracts). A smaller number of publications focus on both workplace well-being and performance (20 article abstracts). When this relationship is studied, it is the impact of one concept on the other that is considered, with researchers focusing on that of workplace well-being on performance. Most have shown a positive impact (Bockerman and Llakunnas, 2012; Ouedraogo and Leclerc, 2013). Others conclude that there is no relationship (Iaffaldano and Muchinsky, 1985; Wright and Staw, 1999) or a weak one (Vanhala and Tuomi, 2006). In contrast, some researchers argue that job performance has a causal effect on job satisfaction (; Darden *and al.*, 1989 ; Brown *and al.*, 1993; MacKenzie *and al.*, 1998).

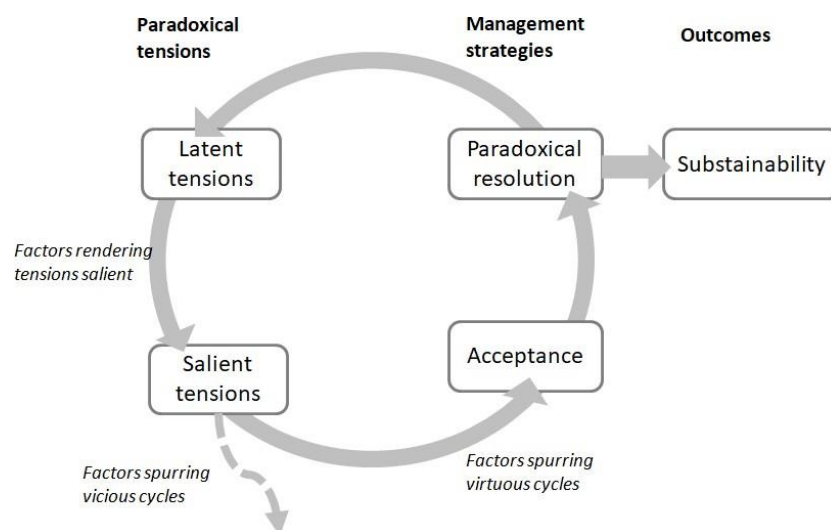
According to Fisher (2003), these divergent conclusions are due to the lack of homogeneity in the definition of concepts. In addition, Van de Voorde *and al.* (2012), in their systematic review covering 36 quantitative studies, show that employee well-being, in terms of happiness

and relationships, is congruent with organizational performance but that health-related well-being appears to function as a conflicting outcome.

Through an analysis of the antecedents, definitions and consequences of workplace well-being and company performance, Bernard and Abord de Chatillon (2018) provide a complementary perspective: workplace well-being and company performance may not necessarily be causally linked but could be a complementary duality combined with an overlap or interdependence of the two concepts. In addition, this study also revealed common dimensions between workplace well-being and performance. This is particularly the case for ‘quality of interpersonal relations’ and ‘material conditions’. The results of the study suggest that ‘workplace well-being’ and ‘business performance’ could be analysed as a paradox.

Finally, the approach developed by Smith and Lewis (2011) proposes a dynamic equilibrium model for resolving a paradox (see Figure 1). According to the authors, organizations activate factors that can lead to either vicious or virtuous cycles. In the latter case, they adopt paradox management strategies that result in the sustainable resolution of the paradox.

Figure 1. Dynamic equilibrium model (Smith and Lewis, 2011)



## **2. High-Performance Human Resources Practices: an Ambivalent Impact on Occupational Health**

Performance, whether economic or social, remains an essential objective of organizations. However, when it comes to defining how to achieve it, the debate is complex. From a deterministic perspective, the notion of ‘good practices’ arises, with these practices supposedly producing the desired performance. In terms of human resources management (HRM), this search for best practices has gradually led to the creation of ‘high-performance work practices’ (HPWPs) (Huselid, 1995), which, when combined, can lead to the creation of high-performance work systems (HPWSs) (Becker and Gerhart, 1996; Horgan and Mühlau, 2006;; Toh and *al.*, 2008).

While many studies show the effectiveness of these practices on performance (see e.g. the meta-analysis by Combs and *al.*, 2006), the idea that this search for performance could be at the expense of employees’ well-being is gradually emerging. These good practices have a double effect: first, a positive one of improving equity and the motivation of employees and, second, a negative one of increasing demands on participants in the organization (Kroon and *al.*, 2009). There is therefore a dark side to the utilization of these practices (Godard, 2001; Legge, 1995; Kroon and *al.*, 2009), which encourage greater employee involvement but which may lead to an intensification of work (Macky and Boxhall, 2007).

However, the overall impact of these practices on occupational health has been little studied, apart from the work of Kroon and *al.* (2009), which shows that these practices, which increase work demands, produce burn-out, despite improvements in organizational equity. It can therefore be seen that these practices produce varied results and that their individual and cumulative effects should be examined more precisely regarding their impact on occupational health.

Since the 1990s, a series of research studies has made it possible to refine these good practices. And from 2005 onwards there has been a flurry of empirical work on the subject that has made it possible to structure the knowledge of these practices and their impact on the functioning of organizations. While the overall effect appears positive (Combs and al., 2006), the potential combinations of practices still appear to be insufficiently evaluated (Evans and Davis, 2005; Arthur and Boyles, 2007). There is therefore a debate between those who support these practices and believe that they make an overall contribution to performance and those who, following Legge (1995) and Godard (2001), consider that they provoke, above all, a demand from the organization for more work and are therefore only the relay for new operating mechanisms. The idea then emerges that these practices, which are not controversial in themselves, could have a more complex role than first appears (Jensen and al., 2013). At the same time, practices associated with workplace health promotion, often institutionalized, rarely succeed in transforming organizations sufficiently to have a real impact on workplace health.

### ***High-performance human resources practices: a disparate set***

HPHRPs include a set of elements related not only to the compensation system and employee participation but also to training mechanisms and flexible-work organization mechanisms such as semi-autonomous teams (Huselid, 1995; Pfeffer, 1996, Frick *and al.*, 2013). These practices aim to improve employees' skills, commitment and productivity (Postuma *and al.*, 2013) (see Table 2). Thus, the definition and scope of these HPHRPs may vary significantly. Postuma *and al.* (2013) identify nine categories of HR practices that form the successful HR system assembled in the literature, although not all of them are used at the same time.



Table 2: Categories of HR practices that form an effective HR system (developed from Posthuma et al., 2013)

| <b>HR practice categories</b>           | <b>Description of practices</b>  |
|---|--|
| Total compensation                      | Practices of direct and indirect remuneration that employees receive from the organization.<br><i>For example: performance compensation (variable pay, incentive plans, bonuses, profit sharing), competitive compensation (external pay equity) and a formal compensation assessment.</i>   |
| Job design                              | Practices that address the specific elements of jobs, the relationship between jobs and organizational structure.<br><i>For example: job rotations and participatory (decentralized) decision-making, task expansion and enrichment, and the use of autonomous work teams.</i>   |
| Training and development                | Practices relating to the training provided to employees to enable them to acquire the skills necessary for their current and future employment.<br><i>For example: intensive and extensive training, specific training (specific skills), use of training for career development and improvement of performance and training of new entrants.</i> |
| Recruitment and selection               | Practices relating to the positioning and recruitment of candidates as well as the procedures for selecting them.<br><i>For example: innovative recruitment practices, selection criteria linked to the organization's strategy, selective recruitment and use of multiple scientifically validated recruitment tools.</i>                         |
| Social relations                        | Practices that deal with the governance of relations between employees and the employer.<br><i>For example: job security, complaints procedures, opinion surveys and small differences in status.</i>  |
| Communication                           | Practices that focus on the methods of communication and the channels used to transmit information.<br><i>For example: setting up formal information sharing programmes, procedures for suggestions and communication of strategic information to employees.</i>   |
| Performance assessment and management   | Practices to assess and improve individual and collective performance.<br><i>For example: evaluations based on objective results and behaviours, with a view to personal development, frequent evaluations and objectives related to organizational strategies.</i>  |
| Career management                       | Practices that address the techniques and opportunities for development within an organization.<br><i>For example: internal promotion, merit-based promotion, career-path definition and frequent career opportunities.</i>  |
| Turnover, retention and exit management | Practices that identify and act to manage the causes of voluntary departures.<br><i>For example: conducting exit interviews and employee retention strategies.</i>   |

Godard describes these practices in an extensive way by introducing a segmentation between alternative work practices and high-commitment employment practices (Godard, 2004). The former include working in autonomous or semi-autonomous teams as well as the enrichment and rotation of tasks, which Godard groups under ‘adaptation of the activity’, and practices associated with the promotion of employee participation: quality circles, problem-solving groups, staff meetings, steering committees, etc. High-involvement practices include sophisticated recruitment and training; merit-based promotion systems, collective bonuses, profit-sharing, job-security schemes, above-market remuneration and conflict-resolution processes. As Godard (2004) points out, these principles cover a broad spectrum and may differ from one company to another.

This variety of definitions of HPHRPs leads to difficulties in defining their precise shape and accurately assessing their relevance. The existence of these good practices theoretically make it possible to motivate employees to improve performance. The challenge is to define precisely how. Is it by trying to mobilize them in a more sustained way at the risk of exhaustion or by offering them a more balanced framework at the risk of seeing them turn away from the objectives directly related to achieving performance?

These combined practices constitute high-performance HR systems, which are defined as a grouping of practices which produce synergistic effects that reinforce the practices themselves and increase organizational effectiveness (Horgan and Mühlau, 2006; Toh *and al.*, 2008). This is in line with MacDuffie (1995), who highlights the importance for strategic HRM of maintaining internal consistency between practices so that they can reinforce each other. The aim is to limit the perverse effects caused by the accumulation of contradictory practices.

### ***High-performance human resources practices: a double effect on health***

While many studies show the effectiveness of these practices on performance (see e.g. the meta-analysis by Combs *and al.*, 2006), the idea that this search for performance could be at the expense of employees' well-being is gradually emerging. These good practices have a double effect (see Figure 2): first, a positive one of improving equity and the motivation of employees and, second, a negative one of increasing demands on participants in the organization (Kroon *and al.*, 2009). There is therefore a dark side to the utilization of these practices (Godard, 2001; Legge, 1995; Kroon *and al.*, 2009), which encourage greater employee involvement but which may lead to an intensification of work (Macky and Boxhall, 2007). However, the overall impact of these practices on occupational health has been little studied, apart from the work of Kroon *and al.* (2009), which shows that these practices, which increase work demands, produce burn-out, despite improvements in organizational equity. It can therefore be seen that these practices produce varied results and that their individual and cumulative effects should be examined more precisely regarding their impact on occupational health.

HPHRPs have multiple effects, relating to elements strictly within the purview of HR (skills, motivation, etc.) and to impacts on the organization, and these associations can sometimes have harmful consequences.

Concerning the HR dimension, the impacts concern both the development of skills and motivation or satisfaction. In fact, the mechanism at work seems to indicate that HPHRPs improve employees' knowledge, skills and ability, which encourages them to act and be motivated (Becker and Huselid, 1998; Becker and al., 1997; Delery and Shaw, 2001; Huselid, 1995). Delery and Shaw (2001) specify that the development of skills generates an appetite for even more skills, which enables employees to better face the difficulties of their tasks and

leads them to increase their performance and motivation in a virtuous-circle logic similar to the motivation mechanisms envisaged by Vroom (1964). Beyond this general mechanism, Sparham and Sung (2007) focus on the ability of these practices to generate intrinsic motivation. If this is achieved, a performance spiral is triggered. However, this impact on motivation also appears to be consistent with the notion of HPHRPs, as many authors define them as ‘practices that aim to motivate employees’ (in particular Combs and al., 2006 and Huselid, 1995).

With regard to job satisfaction (common dimension of well-being at work and performance), Macky and Boxall (2007) show that it can be considered as the product of HPHRPs (as indicated by Appelbaum and al., 2000; Cappelli and Neumark, 2001; Macky & Boxall, 2007; Wang and al., 2011) and as a mediator variable that strengthens both management confidence and involvement.

Regarding organizational elements, these practices make it possible to facilitate communication, cooperation, trust in management, identification with the organization and organizational involvement, as well as to develop flexibility and productivity, and even to reduce absenteeism and staff turnover. Thus, Evans and Davis (2005) show that HPHRPs have a positive effect on the social structure of organizations. Equity practices have a role in both communication and cooperation. At the same time, this strengthening of the social structure makes it possible to promote the adaptation of the organization to its environment by developing flexibility.

These practices may also promote communication because they help to change employees’ attitudes at work, increasing their sense of identity with and commitment to the organization (Macky and Boxall, 2007). Similarly, it appears that these practices enable performance by promoting a shift towards a stronger link to the organization that results in increased

productivity and reduced staff turnover and absenteeism (Becker and al., 1997; Cappelli and Neumark, 2001; Macky and Boxall, 2007; Wang and al., 2011 ).

However, several factors suggest the existence of potentially negative effects: intensification of work, increased risk of stress, professional exhaustion and even exploitation of employees. The impact of these practices on stress has been studied by Noblet and Rodwell (2008) and Kroon and al. (2009), who have shown that they constitute stressors which produce work intensification. The ambivalence of these impacts is highlighted by Kroon and al. (2009), who demonstrate that a two-fold effect emerges with, on the one hand, an increase in the demands associated with work which risks the exhaustion and burn-out of employees and, on the other hand, an increase in equity which allows for moderation. This dual movement is also considered by Wood and al. (2012), who indicate that, while these practices can create a positive dynamic (through stronger involvement and a more positive relationship to performance), there is a possibility that this involvement can generate stress and dissatisfaction. It is then possible see how exploitation mechanisms can be triggered, as some authors claim (Godard, 2001; Legge, 1995).

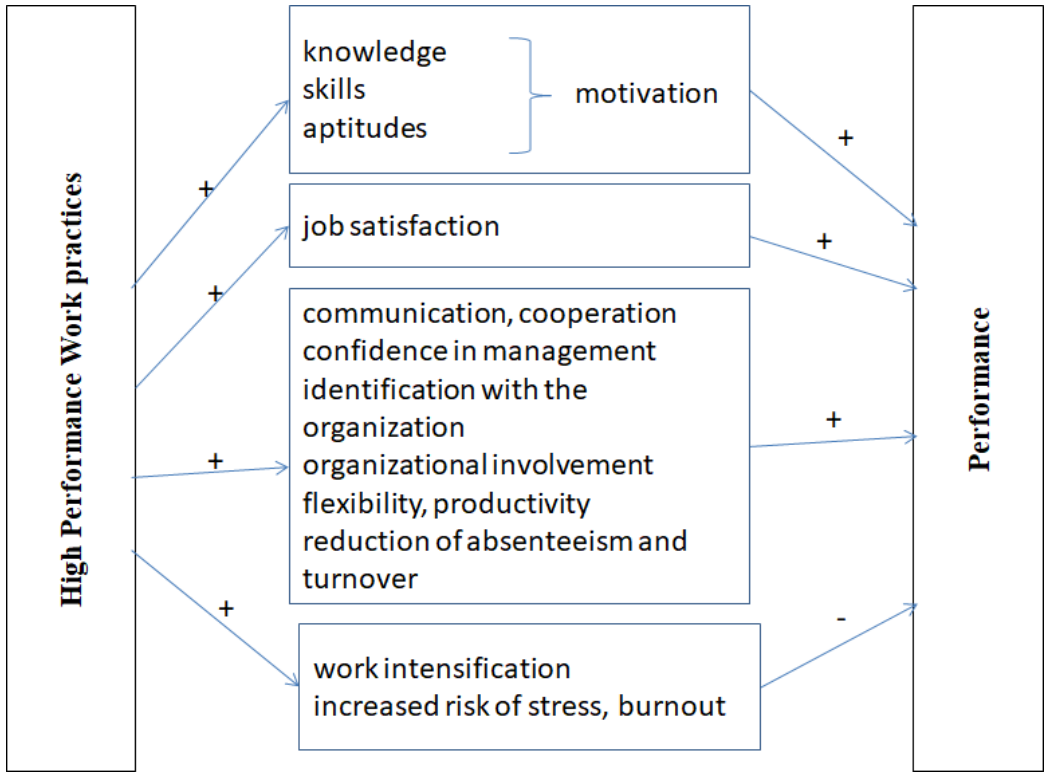
Several factors suggest the existence of potentially negative effects of HPHRP's: intensification of work, increased risk of stress (Noblet and Rodwell, 2008 ; Kroon and al. 2009), professional exhaustion (Wood & al, 2010) and even exploitation of employees (Godard, 2001; Legge, 1995).

It is interesting to note that the accumulation of managerial initiatives and approaches can also have an effect. The idea of a HPHRPs system requires the implementation of a set of measures. This increases pressure on employees and there is a risk of both staff overload and

overzealous implementation of these tools, which can lead to a deviation from the original purpose (Green, 2004; Macky and Boxall, 2007; Ramsay and al., 2000). In fact, it seems that the emergence of these practices must be considered within the employer/employee relationship. If these practices are part of a balanced social-exchange logic, then emotional exhaustion will decrease. However, if they are strictly economic in nature, there will be a reduction in commitment to work and stakeholder satisfaction (Mihail and Kloutsiniotis, 2016).

HPHRPs therefore do not seem to have a unique effect that benefit performance. While they increase the productivity and efficiency of employees, they also seem likely to contribute to a broad movement of work intensification, which is recognized as the main cause of stress at work. Figure 2 summarizes the various effects of HPHRPs drawn from the literature review.

Figure 2. Synthesis of the effects of high-performance human resource practices from the literature



***High-performance human resources practices: which ones impact on well-being at work and corporate performance?***

The existence of these good practices theoretically make it possible to motivate employees to improve performance. The challenge is to define precisely how. Is it by trying to mobilize them in a more sustained way at the risk of exhaustion or by offering them a more balanced framework at the risk of seeing them turn away from the objectives directly related to achieving performance?

According to Vanhala and Tuomi (2006), if HR practices are relatively good predictors of company performance, the direct link between HRM and employee well-being is weak and difficult to grasp. Van de Voorde and *al.* (2012), present two opposing theoretical perspectives:

- The *mutual gains perspective* sees employees (in terms of employee well-being) and employers (in terms of organizational performance) both benefiting from HRM.
- The *conflicting outcomes perspective* suggests that HRM has either no, or even a negative, effect on employee well-being. Here, organizational performance is achieved at the cost of reduced employee well-being.

The literature review shows that the impact of HPHRPs, on workplace health and more particularly on workplace well-being and organizational performance, is debated.

If mainstream 'strategic HRM' is, in practice, predominant and pushes the professional behaviour of the HR community towards maximizing the economic performance of the firm, this can lead to dissonances and tensions being perceived by members of the professional HR community (Guerci *and al.*, 2019), in particular those who support 'sustainable HRM', which leads to economic, social, environmental and human sustainability. According to Peccei and Van de Voorde (2019), the two main HRM management, strategic HRM (SHRM) and

employee-centred HRM (ECHRМ), generate debates on the ambivalence of the relationship among practices of HRM, organizational performance and employee well-being.

Faced with this debate, what is the perception of HR professionals with regard to their experience within their companies?

To answer to this question, the decision was taken to conduct a survey of 1500 companies in order to study this phenomenon from an HR professional's viewpoint. Indeed, HR professionals appear to be the most influential actors in a company, through their policies, and more particularly their practices, of impacting both employee well-being and company performance.

### **3. Methodology**

#### ***Sample***

The survey was conducted through an online questionnaire between September and November 2018. An initial sample of 1500 companies, from both private and public sectors, was selected from a database of customers of the first national network of social expertise in companies. Each participant was sent a first email informing him/her of the research approach, a second email inviting them to answer the questionnaire and two reminders for those who had not completed the questionnaire. From the original sample (1500 companies), 34% linked to the online questionnaire, of which 18% (273 companies) completed it.

In our sample, 60% are mid caps, 26% are small and medium sized and 14% are large companies. 39% are from industry sector, 17% services, 12% administration, 6% trade, 3% building and 23% from other sectors. Concerning company turnover, 17% are less than 10m€, 38% are between 10 and 200m€, 31% are more than 200m€ and 14% no response.



The respondents are 56% female and 44% male, 39% have an executive position which 26% are Human Resources Director, 37% are HR managers and 24% have other positions.

### ***Measures***

The questionnaire was developed from the literature review. This led to the consideration of three measurement scales :

(1) **Well-being at work:** Dagenais-Desmarais IBET25 measurement scale (2010), consisting of 25 questions with 5 for each of the 5 sub-themes: (1) interpersonal fit at work (WB1), (2) thriving at work (WB2), (3) feeling of competency at work (WB3), (4) perceived recognition at work (WB4) and (5) desire for involvement at work (WB5). The original wording was modified to suit the specific context as the study asked company representatives about the well-being of their employees and not the employees directly.

(2) **Corporate performance:** Combined measurement scales (Dyer and Reeves (1995); Delaney and Huselid (1996); Roos *and al.* (2004)) included in Vanhala and Tuomi (2006) and a socio-economic performance variable. Regarding the use of perceptual performance data, the study relied on the work of Dess and Robinson (1984), which shows the convergence between subjective assessments of performance and objective performance data. Thus, company performance was measured using three combined measurement scales, comparing the performance of the respondent company with that of other companies of the same type, in terms of:

- Competitiveness (PERF1) (4 items: marketing, sales development, profitability, market share)

- Customer satisfaction (PERF2) (2 items: customer satisfaction, quality of products and services)
- Employees committed to work (PERF3) (3 items: cooperation between employer and employees, ability to have committed employees, ability to have satisfied employees)

We also added a measure of socio-economic performance (PERF4) (3 items: ability to control turnover, ability to control absenteeism, ability to control work stoppages).

(3) **HR practices:** HPWPs measurement scale by Gong *and al.* (2009), consisting of 46 questions covering 8 areas of HR practice: (1) employment security, (2) reduction in distinctions between status, (3) selective hiring, (4) participation in decision-making, (5) pay contingent on performance, (6) extensive training, (7) career planning, (8) performance appraisal. This is a 5-dimensional Likert scale. The French translation by Bergon (2015) of the questionnaire, which was originally in English, was retained.

The questionnaire was administered using Vocaza Survey Manager. The graphic design format of this software ensures attractiveness and accessibility.

### ***Data analysis***

The study used PLS-SEM to analyse the different models for several reasons. First, it is suitable for latent variables and makes no assumptions about variable distribution, so can therefore deal with non-normal data. Examination of the indicators shows that they are not normally distributed (72% of the indicators have a standardized skewness  $> 2$ , and 54% have a standardized kurtosis  $> 2$ ) and that the multivariate normal condition is not met (standardized Mardia coefficient = 23.28). Second, PLS modelling is a variance-based

approach that can produce robust results on small samples in which convergence problems may occur with a covariance-based analysis (Reinartz *and al.*, 2009). Third, this research is exploratory, and causal-predictive, and therefore is well suited to PLS-SEM, which emphasizes prediction in estimating statistical models whose structures are designed to provide causal explanations (Sarstedt *and al.*, 2017). SmartPLS 3 software (Ringle *and al.*, 2015) was used in a two-stage approach based on the assessment of measurement models (by establishing reliability, convergent and discriminant validity), followed by examination of structural models to assess the direct effects of high-performance work systems (HPWSs) on well-being and performance. Considering that the aim of the research was to estimate and compare the influence of HPWSs on different dimensions of well-being and performance, nine different models (one for each dimension of dependent constructs) were estimated individually.

#### *Measurement models*

Measurement models were first assessed by examining indicators' loadings for all the latent constructs. Standardized loadings above 0.7 are recommended as they indicate that the construct explains more than 50% of the indicator's variance, while loading above 0.4 is acceptable in exploratory research (Hair *and al.*, 2013). Based on these principles, items with loadings above 0.6 were kept as they permitted the retention of at least 4 indicators per latent construct and provided acceptable reliability for the constructs. The reliability of the sets of items retained was assessed using Cronbach's Alpha and Composite reliability, where values are considered as lower and upper bounds for estimating reliability (Hair *and al.*, 2019). A value from 0.6 to 0.7 is acceptable in exploratory research but one between 0.7 and 0.8 is generally recommended.

The convergent validity of the constructs was then examined using the Average Variance Extracted (AVE) criterion. A construct is considered to have a sufficient convergent validity if its AVE is 0.50 or higher, indicating that the construct explains at least 50% of the variance of its items.

Finally, discriminant validity, which is the extent to which one construct is empirically distinct from others in the structural model, was checked. For this purpose, the heterotrait-monotrait ratio of correlations (HTMT) proposed by Henseler *and al.* (2015) was used. Henseler *and al.* (2012) showed that high level values of HTMT indicate a lack of discriminant validity and proposed a threshold of 0.85 to confirm that discriminant validity is established between two constructs.

### *Structural models*

Before testing for the structural relationships, possible collinearity between exogenous latent constructs was checked by examining the variance inflation factor (VIF) on indicators. The VIF values should ideally be around 3 or lower (Hair *and al.*, 2019). Structural models were assessed by examining the level and significance of standardized path coefficients to measure the magnitude of the effects and the in-sample predictive power. This was done by investigating coefficient of determination ( $R^2$ ) values and predictive relevance via Stone-Geisser  $Q^2$  (Sarstedt *and al.*, 2017). A  $Q^2$  value larger than 0 for an endogenous latent variable indicates the PLS path model has predictive relevance for this construct. As a rule of thumb,  $Q^2$  values higher than 0, 0.25 and 0.50 depict small, medium and large predictive relevance of the PLS-path model respectively (Hair *and al.*, 2019).

## 4. Results

### *Measurement models*

The measurement models were assessed in two stages. First, the 8 exogenous latent variables (HPWPs) were connected to composite well-being and performance constructs in order to assess their convergent validity and reliability, and to evaluate indicators' loadings. Second, the 9 endogenous latent variables (5 individual dimensions of well-being and 4 of performance) were connected to the set of exogenous variables (HPWPs plus control variables) to conduct the same analysis. Indicators whose loadings did not reach the minimum recommended level (0.60) were removed. These procedures led to the removal of 11 indicators from the exogenous constructs and none from the endogenous constructs. After this operation, requirements for construct reliability and convergent validity were met (see Table 3).

Table 3. Measurement models

|                                   |                                      | Cronbach's<br>Alpha | Composite<br>Reliability | AVE  |
|-----------------------------------|--------------------------------------|---------------------|--------------------------|------|
| Endogenous<br>variables           | Interpersonal fit (WB1)              | 0.83                | 0.88                     | 0.59 |
|                                   | Thriving at work (WB2)               | 0.85                | 0.89                     | 0.62 |
|                                   | Feeling of competency at work (WB3)  | 0.84                | 0.88                     | 0.60 |
|                                   | Perceived recognition at work (WB4)  | 0.84                | 0.89                     | 0.61 |
|                                   | Desire for involvement at work (WB5) | 0.81                | 0.87                     | 0.57 |
|                                   | Competitiveness (PERF1)              | 0.84                | 0.89                     | 0.67 |
|                                   | Customer satisfaction (PERF2)        | 0.82                | 0.92                     | 0.85 |
|                                   | Employees committed to work (PERF3)  | 0.87                | 0.92                     | 0.79 |
|                                   | Socio-economic performance (PERF4)   | 0.76                | 0.86                     | 0.67 |
| Exogenous<br>variables<br>(HPWPs) | Career planning                      | 0.77                | 0.85                     | 0.59 |
|                                   | Employment security                  | 0.78                | 0.86                     | 0.60 |
|                                   | Extensive training                   | 0.83                | 0.88                     | 0.60 |
|                                   | Participation in decision-making     | 0.83                | 0.88                     | 0.54 |
|                                   | Pay contingent on performance        | 0.73                | 0.83                     | 0.55 |
|                                   | Performance appraisal                | 0.88                | 0.92                     | 0.68 |
|                                   | Reduction in distinctions            | 0.75                | 0.85                     | 0.65 |
|                                   | Selective hiring                     | 0.81                | 0.87                     | 0.63 |

Concerning the assessment of discriminant validity for exogenous constructs, the examination of the heterotrait-monotrait matrix (see Table 1 in Appendix A) shows that ratios of correlations are ranging from 0.06 to 0.64, far beyond the critical level of 0.85, indicating discrimination concerns between latent variables. Given that 9 models were individually tested, discriminant validity is not a problem for endogenous constructs.

### ***Structural models***

The VIF for latent predictors ranges from 1.22 to 1.77 with a mean of 1.47, indicating that collinearity is not a concern in this study. Statistical significance for structural paths was tested via a bootstrapping procedure (bias-corrected and accelerated bootstrap) on 5000 samples (see Table 4). Detailed results with confidence intervals are displayed in Appendix B (Tables 1 to 9). Since this study is in an exploratory phase, two thresholds of significance (0.05 and 0.1) are displayed.

Table 4. Structural paths for 9 dependent constructs

|                                  | WB1               | WB2               | WB3               | WB4               | WB5     | PERF1             | PERF2  | PERF3              | PERF4  |
|----------------------------------|-------------------|-------------------|-------------------|-------------------|---------|-------------------|--------|--------------------|--------|
| Career planning                  | .129 <sup>a</sup> | .200**            | .197**            | .175**            | .258*** | .140 <sup>a</sup> | .040   | .158*              | .063   |
| Employment security              | .058              | .081              | .008              | .048              | -.006   | .040              | .006   | -.105              | -.001  |
| Extensive training               | .141*             | .223**            | .210**            | .161*             | .183**  | -.049             | -.025  | .286***            | .121   |
| Participation in decision-making | .187**            | .146**            | .104 <sup>a</sup> | .117*             | .119*   | .164*             | .115   | .262***            | .047   |
| Pay contingent on performance    | .026              | .111 <sup>a</sup> | .098              | .132*             | .046    | .273***           | .079   | .014               | .213** |
| Performance appraisal            | .056              | .094              | .096              | .109 <sup>a</sup> | .182**  | .116 <sup>a</sup> | .050   | -.104 <sup>a</sup> | .090   |
| Reduction in distinctions        | .096 <sup>a</sup> | .146**            | .140**            | .242***           | .184**  | .076              | .152   | .158*              | .091   |
| Selective hiring                 | .083              | -.022             | .118**            | -.012             | -.062   | -.056             | .104   | .021               | .128   |
| Size                             | -.004             | .044              | .087              | .016              | -.005   | .064              | .074   | .077               | .154*  |
| Turnover                         | -.020             | .055              | -.017             | .005              | .033    | .160*             | .205** | .105               | .144*  |

Note. <sup>a</sup>  $p < .1$  \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

Overall, the models show acceptable explanatory power and the influence of different dimensions of HPWPs is clearly differentiated (see Table 5).

Table 5. Significant predictors for well-being at work and performance dimensions

|                                  | WB1  | WB2  | WB3  | WB4  | WB5  | PERF1 | PERF2 | PERF3 | PERF4 |
|----------------------------------|------|------|------|------|------|-------|-------|-------|-------|
| Career planning                  | ✓    | ☑    | ☑    | ☑    | ☑    | ✓     |       | ☑     |       |
| Employment security              |      |      |      |      |      |       |       |       |       |
| Extensive training               | ☑    | ☑    | ☑    | ☑    | ☑    |       |       | ☑     |       |
| Participation in decision-making | ☑    | ☑    | ✓    | ☑    | ☑    | ☑     |       | ☑     |       |
| Pay contingent on performance    |      | ✓    |      | ☑    |      | ☑     |       |       | ☑     |
| Performance appraisal            |      |      |      | ✓    | ☑    | ✓     |       | ✓     |       |
| Reduction in distinctions        | ✓    | ☑    | ☑    | ☑    | ☑    |       |       | ☑     |       |
| Selective hiring                 |      |      | ☑    |      |      |       |       |       |       |
| Size                             |      |      |      |      |      |       |       |       | ☑     |
| Turnover                         |      |      |      |      |      | ☑     | ☑     |       | ☑     |
| R <sup>2</sup>                   | 0.26 | 0.44 | 0.43 | 0.42 | 0.43 | 0.29  | 0.17  | 0.35  | 0.30  |
| Q <sup>2</sup>                   | 0.13 | 0.25 | 0.23 | 0.22 | 0.21 | 0.17  | 0.09  | 0.24  | 0.16  |

Note. ☑ Significant influence ( $\alpha < 0.05$ ); ✓ Significant influence ( $\alpha < 0.1$ )

### ***Human resources practices that benefit well-being at work***

The analysis of the results of the five dimensions of well-being at work shows that the two control variables, the size and turnover of the company, have no statistically significant impact. Among the eight dimensions of HPHRPs, seven of them have an impact on workplace well-being to a greater or lesser extent. **Career planning, extensive training, participation in decision-making and reduction in distinction** have an impact on all aspects of well-being (interpersonal fit at work, thriving at work, feeling of competency at work, perceived recognition at work, desire for involvement at work). **Pay contingent on performance and performance appraisal** have an impact on two of the five dimensions of well-being at work.

**Selective hiring** acts on only one dimension: the feeling of competency at work. HR practices regarding employment security do not affect any of the dimensions of workplace well-being.

### *Human resources practices that benefit corporate performance*

Unlike the results of well-being at work, the company's size and turnover control variables are significant for several dimensions of performance: size for socio-economic performance and turnover for competitiveness, customer satisfaction and socio-economic performance. Paradoxically, not all HR practices that are designed to be effective contribute to the company's performance. Those regarding employment security and selective hiring have no impact on the four performance indicators.

However, **career planning, participation in decision-making, pay contingent on performance** and **performance appraisal** most affect performance dimensions. Finally, there is a dependence on the size and turnover of the company on the performance indicators.

### *Human resources practices that benefit both well-being at work and corporate performance*

All HPHRPs that impact both workplace well-being and company performance have a positive effect. **Career planning** and **participation in decision-making** benefit all aspects of well-being at work (interpersonal fit at work, thriving at work, feeling of competency at work, perceived recognition at work, desire for involvement at work) as well as two out of four aspects of company performance (competitiveness and employees committed to work). **Extensive training** and **reduction in distinction** benefit all areas of well-being at work and one area of performance (employees committed to work). To a lesser extent, pay contingent on performance and performance appraisal benefit two aspects of well-being at work and two aspects of performance. Finally, combining well-being at work and company performance



could include, first, career planning and participation in decision-making and, second, extensive training and reduction in distinction.

In the minds of executives or HR professionals, three HPHRPs make it possible to combine well-being at work and company performance, creating situations where the employee can be part of a professional perspective and is an actor in his own work: skill development (through training), recognition of skills and potential (through career planning) and skill promotion (through participation in decision-making).

## **5. Discussion**

This study has highlighted organizational practices, particularly in HR, that make it possible to combine well-being at work and company performance. It is based on data collected between September and November 2018, reflecting the current business environment.

The paper reviews the existing practices in companies, particularly in terms of HR, and looks a posteriori at whether they make it possible to resolve a particular paradox, namely that between well-being at work and company performance. The virtuous practices for resolving the paradox, i.e. those allowing the employee to be an actor in his work, refer to the study of Valette *and al.* (2018) on the crucial question of delegating the management of paradoxes, which is generally carried out by the organization, to individuals. The centrality of employee autonomy at work also makes reference to studies on the liberated company or alternative forms of management such as servant leadership (Greenleaf, 2002; Van Dierendonck, 2011). The virtuous HPHRPs highlighted in this current study's findings are consistent with self-determination theory (Ryan and Deci, 2000) according to which three basic psychological needs are at the root of motivation and well-being: autonomy, skills and social belonging.

While the work of Kroon *and al.*, (2009), Legge (1995) and Godard (2001) warns of the harmful effects of HPHPRs on stress and work intensification, this current research shows no negative impact of these practices on either workplace well-being or performance. Thus, the perception of HR professionals would have a significant impact on the results, at least when considered individually. Further work on the impact of the accumulation of practices could shed light on these divergent results.

The limitations of this study concern not only the structure of the sample, which is slightly under-represented in the service sector, but also the collection of data in terms of the scales for measuring well-being at work and performance. Indeed, the scale used to measure well-being at work does not directly reflect the perception of employees but that of their HR directors. In addition, multi-level approaches (Peccei and Van De Voorde, 2019) are now recommended to understand performance at the company level and well-being at work at the employee level. By focusing on HR professionals' perceptual data on both company performance and employee well-being, the single level approach is appropriate.

This research could continue with a study generalizing the practice-based approach as a way of resolving paradoxes. Using the configuration models to demonstrate that there may be a paradox in one context but not another, or in a context that may be a combination of practices, would give another perspective.

## **6. Conclusion**

This study's approach, based on perceptions of HR managers, provides a way to resolve the paradox between well-being at work and company performance. It is not so much working in a successful company that brings well-being to its employees but rather the presence of a number of corporate practices, the most virtuous being those that combine employee well-being and corporate performance. Indeed, promoting certain HPHRPs (career planning, participation in decision-making, extensive training, reduction in status distinction) would make it possible to combine well-being at work and company performance. These practices would therefore be factors in resolving the paradox, leading to a virtuous cycle as demonstrated in the dynamic equilibrium model of Smith and Lewis (2011).

The originality of this study lies in the fact that it proposes a decision support tool in terms of HR strategy for firms that are committed to combining the well-being of their employees and the performance of their company. It seems also that practices are only as good as their ability to transform the way the organization operates. In this sense, this study highlights that companies which have practices that allow employees to be active in their work, thus contributing to the transformation of the organization, are combining employee well-being and company performance.

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## Appendix

### Appendix A. Measurement model assessment

Table 1. Heterotrait-monotrait ratio of correlations (HTMT)

|                             | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 Career planning           |     |     |     |     |     |     |     |     |     |
| 2 Employment security       | .32 |     |     |     |     |     |     |     |     |
| 3 Extensive training        | .64 | .38 |     |     |     |     |     |     |     |
| 4 Participation in decision | .48 | .33 | .49 |     |     |     |     |     |     |
| 5 Pay contingent on perf.   | .46 | .18 | .41 | .20 |     |     |     |     |     |
| 6 Performance appraisal     | .47 | .18 | .53 | .34 | .42 |     |     |     |     |
| 7 Reduction of distinctions | .33 | .37 | .44 | .36 | .19 | .42 |     |     |     |
| 8 Selective hiring          | .47 | .38 | .50 | .37 | .29 | .42 | .31 |     |     |
| 9 Size                      | .12 | .10 | .08 | .05 | .14 | .15 | .15 | .20 |     |
| 10 Turnover                 | .14 | .05 | .13 | .06 | .46 | .26 | .13 | .24 | .48 |

Note. A ratio < 0.85 indicates discriminant validity

### Appendix B. Structural model assessment (detailed)

Table 1.

HPWS → Interpersonal fit at work (WB1)

|                                      | Est   | t     | p    | CI 95% BCI |       |
|--------------------------------------|-------|-------|------|------------|-------|
|                                      |       |       |      | lower      | Upper |
| Career planning -> WB1               | 0.129 | 1.786 | .074 | -.009      | .275  |
| Employment security -> WB1           | 0.058 | 0.881 | .378 | -.086      | .175  |
| Extensive training -> WB1            | 0.141 | 1.965 | .050 | .010       | .292  |
| Participation in decision -> WB1     | 0.187 | 2.741 | .006 | .043       | .312  |
| Pay contingent on performance -> WB1 | 0.026 | 0.387 | .699 | -.152      | .133  |
| Performance appraisal -> WB1         | 0.056 | 0.842 | .400 | -.086      | .178  |
| Reduction of distinctions -> WB1     | 0.096 | 1.651 | .099 | -.021      | .204  |



|   |        |       |      |       |      |
|---|--------|-------|------|-------|------|
| Selective hiring -> WB1                       | 0.083  | 1.292 | .197 | -.053 | .202 |
| Size -> WB1                                   | -0.004 | 0.055 | .956 | -.140 | .140 |
| Turnover -> WB1                               | -0.020 | 0.289 | .772 | -.147 | .128 |
| <hr/>   |        |       |      |       |      |
| R <sup>2</sup> = 0.261 Q <sup>2</sup> = 0.132 |        |       |      |       |      |

Table 2.  
HPWS → Thriving at work (WB2)

|   | Est    | t     | p    | CI 95% BCI |       |
|---|--------|-------|------|------------|-------|
|   |        |       |      | lower      | upper |
| Career planning -> WB2                        | 0.200  | 3.066 | .002 | .076       | .331  |
| Employment security -> WB2                    | 0.081  | 1.449 | .147 | -.037      | .185  |
| Extensive training -> WB2                     | 0.223  | 3.471 | .001 | .101       | .354  |
| Participation in decision -> WB2              | 0.146  | 2.967 | .003 | .041       | .236  |
| Pay contingent on performance -> WB2          | 0.111  | 1.775 | .076 | -.014      | .229  |
| Performance appraisal -> WB2                  | 0.094  | 1.484 | .138 | -.033      | .217  |
| Reduction of distinctions -> WB2              | 0.146  | 2.903 | .004 | .043       | .243  |
| Selective hiring -> WB2                       | -0.022 | 0.384 | .701 | -.144      | .080  |
| Size -> WB2                                   | 0.044  | 0.776 | .438 | -.064      | .155  |
| Turnover -> WB2                               | 0.055  | 0.821 | .412 | -.075      | .190  |
| <hr/>   |        |       |      |            |       |
| R <sup>2</sup> = 0.443 Q <sup>2</sup> = 0.246 |        |       |      |            |       |

Table 3.  
HPWS → Feeling of competence at work (WB3)

|   | Est    | t     | p    | CI 95% BCI |       |
|---|--------|-------|------|------------|-------|
|   |        |       |      | lower      | upper |
| Career planning -> WB3                        | 0.197  | 3.027 | .002 | .063       | .322  |
| Employment security -> WB3                    | 0.008  | 0.137 | .891 | -.111      | .122  |
| Extensive training -> WB3                     | 0.210  | 3.034 | .002 | .077       | .352  |
| Participation in decision -> WB3              | 0.104  | 1.855 | .064 | -.012      | .206  |
| Pay contingent on performance -> WB3          | 0.098  | 1.636 | .102 | -.033      | .204  |
| Performance appraisal -> WB3                  | 0.096  | 1.445 | .149 | -.041      | .219  |
| Reduction of distinctions -> WB3              | 0.140  | 2.652 | .008 | .033       | .240  |
| Selective hiring -> WB3                       | 0.118  | 2.105 | .035 | .005       | .228  |
| Size -> WB3                                   | 0.087  | 1.375 | .169 | -.037      | .210  |
| Turnover -> WB3                               | -0.017 | 0.254 | .799 | -.147      | .119  |
| <hr/>   |        |       |      |            |       |
| R <sup>2</sup> = 0.434 Q <sup>2</sup> = 0.225 |        |       |      |            |       |

Table 4.  
HPWS → Perceived recognition at work (WB4)

|                        | Est   | t     | p    | CI 95% BCI |       |
|------------------------|-------|-------|------|------------|-------|
|                        |       |       |      | lower      | upper |
| Career planning -> WB4 | 0.175 | 2.785 | .005 | .053       | .299  |

|                                      |        |       |      |       |      |
|--------------------------------------|--------|-------|------|-------|------|
| Employment security -> WB4           | 0.048  | 0.764 | .445 | -.083 | .161 |
| Extensive training -> WB4            | 0.161  | 2.536 | .011 | .045  | .295 |
| Participation in decision -> WB4     | 0.117  | 2.063 | .039 | .002  | .219 |
| Pay contingent on performance -> WB4 | 0.132  | 2.103 | .035 | -.001 | .249 |
| Performance appraisal -> WB4         | 0.109  | 1.812 | .070 | -.013 | .225 |
| Reduction of distinctions -> WB4     | 0.242  | 4.512 | .000 | .133  | .342 |
| Selective hiring -> WB4              | -0.012 | 0.205 | .837 | -.138 | .097 |
| Size -> WB4                          | 0.016  | 0.260 | .795 | -.101 | .143 |
| Turnover -> WB4                      | 0.005  | 0.069 | .945 | -.139 | .164 |
| $R^2 = 0.418$ $Q^2 = 0.222$          |        |       |      |       |      |

Table 5.  
HPWS → WB5 (Desire for involvement at Work)

|                                      | Est    | t     | p    | CI 95% BCI |       |
|--------------------------------------|--------|-------|------|------------|-------|
|                                      |        |       |      | lower      | upper |
| Career planning -> WB5               | 0.258  | 4.033 | .000 | .134       | .383  |
| Employment security -> WB5           | -0.006 | 0.096 | .924 | -.161      | .097  |
| Extensive training -> WB5            | 0.183  | 2.727 | .006 | .053       | .315  |
| Participation in decision -> WB5     | 0.119  | 2.161 | .031 | .010       | .224  |
| Pay contingent on performance -> WB5 | 0.046  | 0.753 | .451 | -.087      | .153  |
| Performance appraisal -> WB5         | 0.182  | 2.729 | .006 | .041       | .307  |
| Reduction of distinctions -> WB5     | 0.184  | 3.322 | .001 | .071       | .289  |
| Selective hiring -> WB5              | -0.062 | 0.931 | .352 | -.205      | .056  |
| Size -> WB5                          | -0.005 | 0.072 | .942 | -.140      | .125  |
| Turnover -> WB5                      | 0.033  | 0.472 | .637 | -.097      | .184  |
| $R^2 = 0.429$ $Q^2 = 0.213$          |        |       |      |            |       |

Table 6.  
HPWS → Competitivy (PERF 1)

|   | Est    | t     | p    | CI 95% BCI |       |
|---|--------|-------|------|------------|-------|
|   |        |       |      | lower      | upper |
| Career planning -> PERF 1               | 0.140  | 1.662 | .097 | -.017      | .313  |
| Employment security -> PERF 1           | 0.040  | 0.321 | .749 | -.271      | .182  |
| Extensive training -> PERF 1            | -0.049 | 0.648 | .517 | -.215      | .081  |
| Participation in decision -> PERF 1     | 0.164  | 2.290 | .022 | .009       | .292  |
| Pay contingent on performance -> PERF 1 | 0.273  | 3.634 | .000 | .133       | .423  |
| Performance appraisal -> PERF 1         | 0.116  | 1.737 | .082 | -.017      | .243  |
| Reduction of distinctions -> PERF 1     | 0.076  | 0.721 | .471 | -.253      | .209  |
| Selective hiring -> PERF 1              | -0.056 | 0.726 | .468 | -.253      | .065  |
| Size -> PERF 1                          | 0.064  | 0.888 | .375 | -.070      | .214  |
| Turnover -> PERF 1                      | 0.160  | 1.948 | .052 | .012       | .332  |
| $R^2 = 0.292$ $Q^2 = 0.170$             |        |       |      |            |       |

Table 7.

HPWS → Customer satisfaction (PERF2)

|  | Est    | t     | p    | CI 95% BCI |       |
|--|--------|-------|------|------------|-------|
|  |        |       |      | lower      | upper |
| Career planning -> PERF 2                    | 0.040  | 0.501 | .616 | -.125      | .190  |
| Employment security -> PERF 2                | 0.006  | 0.058 | .954 | -.292      | .129  |
| Extensive training -> PERF 2                 | -0.025 | 0.299 | .765 | -.243      | .111  |
| Participation in decision -> PERF 2          | 0.115  | 1.453 | .146 | -.095      | .243  |
| Pay contingent on performance -> PERF 2      | 0.079  | 1.055 | .291 | -.058      | .238  |
| Performance appraisal -> PERF 2              | 0.050  | 0.742 | .458 | -.083      | .178  |
| Reduction of distinctions -> PERF 2          | 0.152  | 1.624 | .104 | -.229      | .264  |
| Selective hiring -> PERF 2                   | 0.104  | 1.490 | .136 | -.031      | .241  |
| Size -> PERF 2                               | 0.074  | 1.052 | .293 | -.059      | .219  |
| Turnover -> PERF 2                           | 0.205  | 2.605 | .009 | .060       | .363  |
| R <sup>2</sup> = 0.167 Q <sup>2</sup> = 0.09 |        |       |      |            |       |

Table 8.

HPWS → Employees committed to work (PERF 3)

|   | Est    | t     | p    | CI 95% BCI |       |
|---|--------|-------|------|------------|-------|
|   |        |       |      | lower      | upper |
| Career planning -> PERF 3                     | 0.158  | 2.194 | .028 | .027       | .306  |
| Employment security -> PERF 3                 | -0.105 | 1.355 | .176 | -.349      | -.004 |
| Extensive training -> PERF 3                  | 0.286  | 3.765 | .000 | .143       | .442  |
| Participation in decision -> PERF 3           | 0.262  | 3.876 | .000 | .130       | .396  |
| Pay contingent on performance -> PERF 3       | 0.014  | 0.216 | .829 | -.132      | .130  |
| Performance appraisal -> PERF 3               | -0.104 | 1.689 | .091 | -.238      | -.002 |
| Reduction of distinctions -> PERF 3           | 0.158  | 2.075 | .038 | .015       | .275  |
| Selective hiring -> PERF 3                    | 0.021  | 0.333 | .739 | -.101      | .146  |
| Size -> PERF 3                                | 0.077  | 1.104 | .270 | -.052      | .220  |
| Turnover -> PERF 3                            | 0.105  | 1.529 | .126 | -.017      | .253  |
| R <sup>2</sup> = 0.346 Q <sup>2</sup> = 0.243 |        |       |      |            |       |

Table 9.

HPWS → Socio economic performance (PERF 4)

|                                     | Est    | t     | p    | CI 95% BCI |       |
|-------------------------------------|--------|-------|------|------------|-------|
|                                     |        |       |      | lower      | upper |
| Career planning -> PERF 4           | 0.063  | 0.725 | .468 | -.105      | .236  |
| Employment security -> PERF 4       | -0.001 | 0.009 | .993 | -.294      | .126  |
| Extensive training -> PERF 4        | 0.121  | 1.413 | .158 | -.051      | .287  |
| Participation in decision -> PERF 4 | 0.047  | 0.673 | .501 | -.120      | .160  |

|   |       |       |      |       |      |
|---|-------|-------|------|-------|------|
| Pay contingent on performance -> PERF 4       | 0.213 | 2.872 | .004 | .063  | .358 |
| Performance appraisal -> PERF 4               | 0.090 | 1.232 | .218 | -.050 | .232 |
| Reduction of distinctions -> PERF 4           | 0.091 | 1.091 | .275 | -.078 | .249 |
| Selective hiring -> PERF 4                    | 0.128 | 1.690 | .091 | -.013 | .285 |
| Size -> PERF 4                                | 0.154 | 2.379 | .017 | .034  | .287 |
| Turnover -> PERF 4                            | 0.144 | 1.987 | .047 | .009  | .290 |
| <hr/>   |       |       |      |       |      |
| R <sup>2</sup> = 0.301 Q <sup>2</sup> = 0.157 |       |       |      |       |      |
| <hr/>   |       |       |      |       |      |