
Effect of High-performance Work Practices on Civil Servants Health Based on Two Sides of the Job Demands-resources Model in the National Research and Innovation Agency Indonesia

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Abstract

The purpose of this paper is to examine the effect of High-Performance Work Practices (HPWPs) viewed from two sides of the Job Demands-Resources (JD-R) model on employee health. The proposed model was tested on 402 civil servants of the Indonesian Research and Innovation Agency. We utilized Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the study. Our results show that HPWPs has a significant positive impact on employee health, job satisfaction, employee engagement, and challenge stressors. Besides that, we found that HPWPs has a negative impact on stressors and emotional exhaustion. In addition, job satisfaction, employee engagement, challenge and hindrance stressors become partial mediators in the positive effect of HPWPs on employee health. Meanwhile, supportive leadership tends to reduce the positive influence of HPWPs on employee health. The results of this study indicate that agencies should pay more attention to the dose of JD-R and the role of leadership in HPWPs in order to improve employee well-being. Because if job demands higher than the work resources, it has a negative impact on employees, even excessive leadership roles in the HPWPs have a negative impact on employees.

Keywords: job demands-resources, challenge stressors, hindrance stressors, high-performance work practices, health

1. Introduction

Currently, agencies from various sectors have implemented practices related to Human Resources Management (HRM). High-Performance Work Practices (HPWPs) is a set of HRM practices that to improve employee and institutions performance (Hauff et al., 2020). Posthuma et al. (2013) state that there are eight areas of HPWPs, including HR practices regarding compensation, job design, training and development, recruitment and selection, turnover or retention management, performance, employee relations, and promotions. HPWPs known have a relationship with employee conditions (Hauff et al., 2020). The effect of HPWPs on employee welfare is still a determinant of whether it produces higher well-being or supports performance regardless of the employee's conditions (Ogbonnaya et al., 2017). Referring to the Job Demands-

Resources (JD-R) model and transactional stress theory when viewed from the source of work, HPWPs gave a positive value for the condition of employees (Bakker & Demerouti, 2014; Bliese et al., 2017; Hauff et al., 2020).

The effect of HPWPs on employees is known through several HRM practices mechanisms (Hauff et al., 2020). The configuration of work practices with high-performance in terms of job resources was found to have a positive influence on health conditions (Hauff et al., 2020). Health conditions are physical and mental conditions in general so that they can work optimally (Ropponen et al., 2019). HPWPs which are known to have an influence on employee health also have other effects on several components. HPWPs are known to have a positive influence on employee health through job satisfaction and employee engagement (Hauff et al., 2020). Job satisfaction is a pleasant condition experienced by employees for the results of their work (Burton et al., 2017). While employee engagement is the role of employees to use and establish themselves physically, cognitively and emotionally in their work (González-Gancedo et al., 2019). In the same study, Hauff et al. (2020) also found that this condition was also influenced by supportive leadership behavior. Supportive leadership behavior is a leader's disposition that exhibits regard, acceptance, and attention to the requirements and sentiments of staff members in teams or organizations (Carnevale et al., 2019; K. Y. Kim et al., 2021).

Meanwhile, by considering the JD-R model seen from job demands, several studies assume that HPWPs have a negative effect on employee conditions (Jensen et al., 2013; Peccei & Van De Voorde, 2019). Associated with the condition of employees according to transactional stress theory and the JD-R model can be interpreted when employees consistently experience high job demands, work stressors will increase (Bliese et al., 2017; Shi et al., 2022). Supporting this rationale, M. Kim & Beehr (2018) reveal two types of stressors including challenge stressors and hindrance stressors. Hindrance stressors are the causes of stress that result in poor employee performance (Nasurdin et al., 2020). Furthermore, challenge stressors are sources of stress that lead individuals to overcome work-related stressors (Gerich, 2017).

Regarding work stressors, Gerich (2017) revealed that if a stressor is seen as a challenge, it will have a positive effect on employees. However, when viewed as a stressor, hindrance will have a negative effect on employees (J. Ma et al., 2021). Meanwhile, the presence of challenge stressors and hindrance stressors will also lead to emotional exhaustion (Wu et al., 2020; Yulita et al., 2014). Emotional exhaustion will be reduced if the implementation of HR practices is carried out properly (Kloutsiniotis & Mihail, 2020). Emotional exhaustion can be described as a condition of employees who lack energy as a result of intense physical, emotive, and cognitive tension (Oppenauer & Van De Voorde, 2018). With regard to employee engagement and emotional exhaustion, several previous studies have found that employee engagement has a positive effect on employee health (Burton et al., 2017), but emotional exhaustion has a negative effect on employee health (Oppenauer & Van De Voorde, 2018).

As on previous research Hauff et al. (2020) found that the implementation of HPWPs had a positive impact on the condition of employees. This condition occurs because they view HPWPs from the JD-R model as a source of employment. Meanwhile, several studies have assumed that HPWPs can be seen in terms of work demands (Kroon et al., 2013; Peccei & Van De Voorde, 2019) which has a negative impact on employee conditions. As stated in Government Regulation

of Indonesia Number 17 of 2020 concerning Amendments to Government Regulation Number 11 of 2017 concerning Management of Civil Servants, HRM in the public sector through a merit system is in line with the eight HPWPs areas mentioned by Posthuma et al. (2013). Indonesia's Corruption Eradication Commission (2020) stated in its report that the assessment of the application of the merit system at the National Research and Innovation Agency (NRIA) was in the category of sufficient and good achievement. So that it can be ascertained if the NRIA has implemented HPWPs. Therefore, this study will examine the effect of HPWPs on the health of employees at NRIA through the implementation of HPWPs in terms of Job Demands-Resources. So that it can maximize institutions output in implementing HPWPs through categorizing job demands and resources specifically on their effect on employee health.

2. Literature Review

Job Demand-Resources Model

Reaching work-related goals requires extra effort with excessive work demands, which can lead to burnout (Bakker & Demerouti, 2014). Likewise, short of work resources can overwhelm the attainment of work-related goals and lead to quitting work. The main concept of the JD-R model is to classify work conditions as work demands or work resources (Bakker & Demerouti, 2014). Therefore, the JD-R model should be used to ascertain how the workplace affects employee performance and well-being. Job demands can be thought of as the organizational, social, or physical components of work that necessitate constant effort on the part of the body or mind at the expense of physical or psychological (Bakker & Demerouti, 2014). Condition like this can be illustrated as time and job pressure, role conflict or measurable work load. J. Ma et al. (2021) developed this definition by distinguishing between challenging and hindering job demands. Challenging job demands can foster personal development and provide long-term advantages, while hindering job demands can hinder the personal development of a worker and are often seen as a hindrance (J. Ma et al., 2021). In contrast to job demands, job resources are interpreted as efforts to reduce work and similar things through the stimulation of personal growth and development.

High-Performance Work Practices

A set of HRM practices in the form of HPWPs has a goal to improve employee and company performance (Hauff et al., 2018; Karatepe & Vatankhah, 2015). Murphy et al. (2018) revealed that HPWPs is an effort to create working conditions effectively through a combination of HRM practices. HPWPs itself has eight HRM areas (Posthuma et al., 2013) there are compensation, job design, training and development, recruitment and selection, turnover or retention management, performance appraisal, employee relations, promotions. Eight HPWPs areas according to Posthuma et al. (2013) can be implemented in agencies through organizational integration and HRM system design. So that agencies that have implemented these eight areas can be said to have implemented HPWPs in HRM.

Job satisfaction

There are various interpretations of the concept of job satisfaction, Burton et al. (2017) interpreted job satisfaction as a pleasant or favorable state of employees based on the outcomes

of their work. Furthermore, García-Chas et al. (2016) define job satisfaction as a pleasant state, low enthusiasm from a positive job evaluation. In short, Judge et al. (2020) conclude that job satisfaction is a disposition that is beneficial and widespread in the cognitive, affective, and behavioral facets of an employee's professional and personal life. The causes of job satisfaction can be categorized into three (Judge et al., 2020), including the following situational theory which shows that job satisfaction results from the nature of work or environmental aspects, dispositional theory that assumes job satisfaction originates from the structure of the individual's personality, and interactive theory which states that job satisfaction is generated by the interaction of situational and personal factors.

Employee engagement

The condition of employees at work that has a positive and satisfying mentality marked by strength, dedication, and absorption can be interpreted as employee engagement (Leijten et al., 2015). Meanwhile, González-Gancedo et al. (2019) defines employee engagement as the responsibility of employees to use and express their bodies, minds, and emotions while at work. Cognitive expression relates to the role of employees in thinking about management and the workplace (Men et al., 2020). Whereas emotional expression relates to employees' impressions of their place of employment, including their sentiments toward supervisors, both positively and negatively (Men et al., 2020). Employee engagement entails not only a person's physical, cognitive, and emotional involvement, but also their psychological contribution to the organization (Soares & Mosquera, 2019). Furthermore, there are three forms of employee engagement, namely character, psychological, and behavioral (Shrotryia & Dhanda, 2019). Immediately outline employee engagement is the condition of people employed by the institutions who are committed to their vision and mission, so that employees feel empowered and then bring positive energy (Ewing et al., 2019).

Challenge Stressors

Challenge stressors are sources of stress that help employee handle stressors associated to their jobs, such as workload, time limits, and task difficulty. (Gerich & Weber, 2020). Challenge stressors in HPWPs are usually dedicated to greater achievement on the job (Keller et al., 2016). Therefore, employees with high-performance are very likely to experience challenge stressors and are expected to be able to overcome them. Challenge stressors can be positioned as a source of work-related stress that can facilitate high-performing employees for self-development and job performance (Gerich, 2017). In accordance with transactional theory Kilby et al. (2018) assert that personality in dealing with challenge stressors determines the success or failure of employees. So that employees with high-performance when faced with challenge stressors can show their potential through increasing competence, achievement, and career development (J. Ma et al., 2021).

Hindrance Stressors

Hindrance stressors are causes of stress that result in poor employee performance, such as hindrance that are difficult to overcome and have hindrance to achieving goals and career development (Nasurdin et al., 2020). Hindrance as a trigger for stress occur because of role

conflict, ambiguity, and problems in the workplace (Lin & Ling, 2018). In accordance with the cognitive assessment theory of stress Naseer et al. (2019) view that role conflicts in employees arise because of high work demands which make employees view them as threats. The condition of employees who view work as a threat makes them feel emotionally exhausted (Karatepe, 2013). So that employees express it through anger, anxiety and job dissatisfaction (Gerich & Weber, 2020; J. Ma et al., 2021). Hence, it is necessary to understand the existence of hindrance stressors, in addition to seeing work as an stressors, employees can also view it as a challenge (J. Ma et al., 2021).

Emotional Exhaustion

Emotional exhaustion is an individual's condition when they feel drained of energy after working hard to experience emotional decline (Kloutsiniotis & Mihail, 2020). Emotional exhaustion triggered by several factors such as high workload, time pressure needed to complete work, weak social support (lack of support for doing work), role ambiguity (unclear role in doing work) (Oppenauer & Van De Voorde, 2018). Emotional exhaustion, apart from being caused by several of these factors, can be described as the effect of intensive physical, affective and cognitive tension (Conway et al., 2016). On the other research also said that the occurrence of emotional exhaustion does not only have an impact on employees, but also on the institutions where they work (Oppenauer & Van De Voorde, 2018). Conditions like this happened because employees who have emotional exhaustion would decrease in performance (Conway et al., 2016). In addition to the decline in performance, Oppenauer & Van De Voorde (2018) stated that there will be a decline in health issues among employees.

Supportive Leadership

Supportive leadership behavior according to (Carnevale et al., 2019; K. Y. Kim et al., 2021) is the behavior of a leader that exhibits consideration for, acceptance of, and attention to the needs and feelings of others in a work group or organization. Additionally, supportive leadership behaviors can take the form of rewards, assisting with job demands, improving performance, and maintaining employee health (Bakker & Demerouti, 2014). The purpose of supportive leadership behaviors is to promote and maintain collaborative relationships among workgroup members (K. Y. Kim et al., 2021). These behaviors include attending to the needs of the employee, paying close attention when the employee is anxious or agitated, and demonstrating faith in the employee's capability to do tough or difficult jobs (Hatmaker & Hassan, 2021). Besides that, supportive leadership behaviors as well lead to the satisfaction of subordinates' needs and preferences, also includes promoting cooperation and resolving interpersonal conflicts in work groups (Carnevale et al., 2019; K. Y. Kim et al., 2021).

Health

Health is important, because without it basic activities such as work are limited or cannot be done at all (Rani et al., 2021). On the other hand, employee health as an a crucial element of employee well-being (Ogbonnaya et al., 2017). Employee health is a general physical and mental condition in a supportive condition to work optimally (Ropponen et al., 2019). Moreover, excellent employee health conditions can increase effort, contribution, and productivity at work

(González-Gancedo et al., 2019). So the health of employees is something that organizations must take seriously. The health condition of employees can be seen objectively through physiological and subjectively through medical history (Ganster & Rosen, 2013). Based on several literatures said that employee health related to work can be seen from three perspectives (Guerci et al., 2019). First, work is a origin of employee physical disorders. Second, mental illnesses in workers may be brought on by their jobs. Third, work becomes beneficial both directly and indirectly improve health conditions.

Hypotheses

The effect between HPWPs and employee health seems inconsistent. The implementation of HPWPs can cause tension in employees, thus having a negative impact on employee health (Peccei & Van De Voorde, 2019). However, when viewed from a different perspective Garaus et al. (2016) found that the implementation of HPWPs could reduce the causes of employee tension. This is in line with the characteristics of HPWPs which have the character to develop employees and have a positive influence on employee health (Lesener et al., 2019; Wang et al., 2021). Through implementation of HPWPs employees will require more effort at work, but it can increase employee proficient through personal growth or face advancement in the future (Tang et al., 2017). Thus, although it requires effort that can cause tension, implementation of HPWPs tends to have a positive effect on employee health (Gerich, 2017; Gerich & Weber, 2020; Jo et al., 2020; M. Kim & Beehr, 2018).

H1: HPWPs have a positive effect on health.

Activities that carried out on HRM can be interpreted by employees as organizational support for employee work commitment which is connected with employee satisfaction and trust (García-Chas et al., 2016). According to this view, HRM practices through HPWPs can increase employee job satisfaction (Ming et al., 2014). In addition, Anthony et al. (2013) have another opinion that managerial practice will increase employee stress levels even though it has a positive effect on job satisfaction. Looking at the reviews of previous studies (Peccei & Van De Voorde, 2019), in line with the opinion conveyed that there is a positive influence of HPWPs on job satisfaction (Anthony et al., 2013). Things like this happen because the implementation of HPWP provides mutual benefits, or an optimistic perspective which according to HPWP employees provides personal benefits (Guerci et al., 2019). Furthermore, the implementation of HPWPs can create positive employee behavior because with high-performance employees tend to have high job satisfaction (Ogbonnaya & Messersmith, 2019).

H2a: HPWPs have a positive effect on job satisfaction

Employee engagement is a positive employee behavior that arises because they feel trusted and valued (Crawford et al., 2010). Most of the implementation of HPWPs is related to employee attitudes and behavior (Muduli et al., 2016). The existence of HPWPs can release discretion and align the interests of management with employees, so that employee engagement appears in its implementation (Muduli et al., 2016). In addition, employee engagement can arise through three psychological conditions, namely meaningfulness, security and availability (González-Gancedo et al., 2019). HPWPs are carried out to establish a working environment that maximizes employee potential, inspires workers with a sense of purpose in their work, and improves safety

(Huang et al., 2018). So that HPWPs fulfills the three prerequisites, this is in line with empirical studies related to HPWPs which were found to have a positive impact on employee engagement in its implementation (Tucker et al., 2013).

H2b: HPWPs have a positive effect on employee engagement.

HPWPs is an HRM strategy that can improve employee and institutions performance (Hauff et al., 2020). The right HRM strategy can reduce emotional exhaustion (Kloutsiniotis & Mihail, 2020). In line with this HPWPs had a negative effect on emotional exhaustion when viewed from work resources (Oppenauer & Van De Voorde, 2018; Wong et al., 2019).

H2c: HPWPs have a negative effect on emotional exhaustion.

HPWP in addition to affecting health, job satisfaction, work engagement, and emotional exhaustion, but also has an influence on employee stress levels (Anthony et al., 2013). Moreover HPWPs as well increases employee perceptions of stressors related to challenges (Halbesleben et al., 2014). HPWPs supports employees to gain career advantage in challenging working conditions (Topcic et al., 2016). As a result, HPWPs sometimes perceived as a strategic managerial instruments by the workforce to control employees so that organizational performance increases (Huang et al., 2018). In accordance with empirical evidence shows that HPWPs allows employees to gain challenges associated to stressors, such as a heavier workload under specific time limitations (Jensen et al., 2013; Kroon et al., 2013).

H2d: HPWPs have a positive effect on challenge stressors

Even besides having effect on challenge stressors, HPWPs are known to help reduce employees' awareness of the causes of stress-related hindrance (Huang et al., 2018). The HPWPs mechanism can reduce the hindrance that cause stress, because the benefits of HPWPs felt by employees (Huang et al., 2018). In the case of hindrance stressors, employees often believe that they do not have sufficient competence in implementing HPWPs (M. Kim & Beehr, 2018). In other situations, employees tend to be oriented that the implementation of HPWPs can increase competence, so the stressor of hindrance will be reduced (Huang et al., 2018).

H2e: HPWPs have a negative effect on hindrance stressors

From the perspective of the JD-R model, HPWPs will have a positive effect because of the availability of HRM in accordance with organizational needs (Hauff et al., 2020). The positive effect of implementing HPWPs will benefit employees, because the presence of HPWPs will increase employee engagement and job satisfaction (Conway et al., 2016; Hauff et al., 2020). Therefore the existence of HPWPs will improve employee health, although as employees it will require more effort with work demands (M. Kim & Beehr, 2018). Employee engagement and job satisfaction were also discovered to have an advantageous impact on employee health (Burton et al., 2017; González-Gancedo et al., 2019). With regard to job engagement and emotional exhaustion which gives health problems, employee engagement positively impacts employee health, but emotional exhaustion negatively impacts employee health, according to a lot of earlier research (Oppenauer & Van De Voorde, 2018; Yulita et al., 2014).

H3a: Job satisfaction has a positive effect on health

H3b: Employee engagement has a positive effect on Health

H3c: Emotional exhaustion has a negative effect on health

The effect of work-related stress has a different value. In accordance with the main principles of the JD-R model (Bakker & Demerouti, 2014) hindrance stressors as an indicator of job achievement can drain employees' motivational energy. Meanwhile, stressors, apart from demanding energy as well, increase the source of motivation for the purpose of satisfaction and satisfaction of needs, thereby increasing employee function (Schaufeli & Taris, 2014). Based on cognitive theory shows that negative emotions damage the physical and mental well-being of workers (DiGiuseppe et al., 2016). Negative emotions like hindrance stressors has a negative effect on employee health (T. Ma et al., 2018). This is in line with earlier findings, which showed that job stress has an adverse effect on health (Gerich, 2017). Meanwhile, challenge stressors can increase several sources of motivation by promoting self-confidence among workers (LePine et al., 2016). This allows challenge stressors to have a beneficial effect on employees (J. Ma et al., 2021). In line with this, M. Kim & Beehr (2018) discovered that employees' health conditions were positively impacted by the existence of challenge stressors.

H3d: Challenge stressors have a positive effect on health

H3e: Hindrance stressors have a negative effect on health

According to the JD-R model, HPWP can have a positive impact on employee health, as it is coupled with increased job satisfaction and job involvement by viewing it as a job resource (Hauff et al., 2020). Numerous studies back this up, job satisfaction has been shown to be a mediator in the effect of time pressure on an individual's perceived health (Silla & Gamero, 2014). Meanwhile, work engagement has been found to act as a mediator in the link between job resources and transformational leadership on employee health (Mazzetti et al., 2019; Reis et al., 2015; Torp et al., 2013). Moreover emotional exhaustion was also found to be mediator related the influence of demands at work on employee health disorders (Yulita et al., 2014). Furthermore, challenge and hindrance stressors could to be mediators in research design related to the effects of HPWPs (Huang et al., 2018) and which affect health disorders (Yulita et al., 2014).

H4a: Job satisfaction mediates the effect of HPWPs on health

H4b: Employee engagement mediates the effect of HPWPs on health

H4c: Emotional exhaustion mediates the effect of HPWPs on health

H4d: Challenge stressors mediate the effect of HPWPs on health

H4e: Hindrance stressors mediate the effect of HPWPs on health

Supportive leadership behavior is assumed from the model of JD-R can help employees in dealing with the negative impacts that can be caused by HPWPs (Hauff et al., 2020). Furthermore Leroy et al. (2018) found benefits in all aspects that employees get through the implementation of HPWPs if there is supportive leadership behavior in the organization. In line with this, if an organization that implements HPWPs with supportive leadership behavior will help employees view HPWPs as a positive thing and employees will get positive results as well (Wang et al., 2019). Supportive leadership behavior through paying attention to, and considering, needs and preferences will help employees to deal with the negative effects of HPWPs. This notion refers to the JD-R model (Bakker & Demerouti, 2014) the detrimental consequences of

job demands can be eliminated via job resources. Following this logic, if their leader was more supportive, employees will be more able to successfully complete the challenging parts of HPWP. The whole hypothesis is summarized in figure 1.

H5a: Supportive leadership moderates the effect of HPWPs on health through job satisfaction.

H5b: Supportive leadership moderates the influence of HPWPs on health through work engagement.

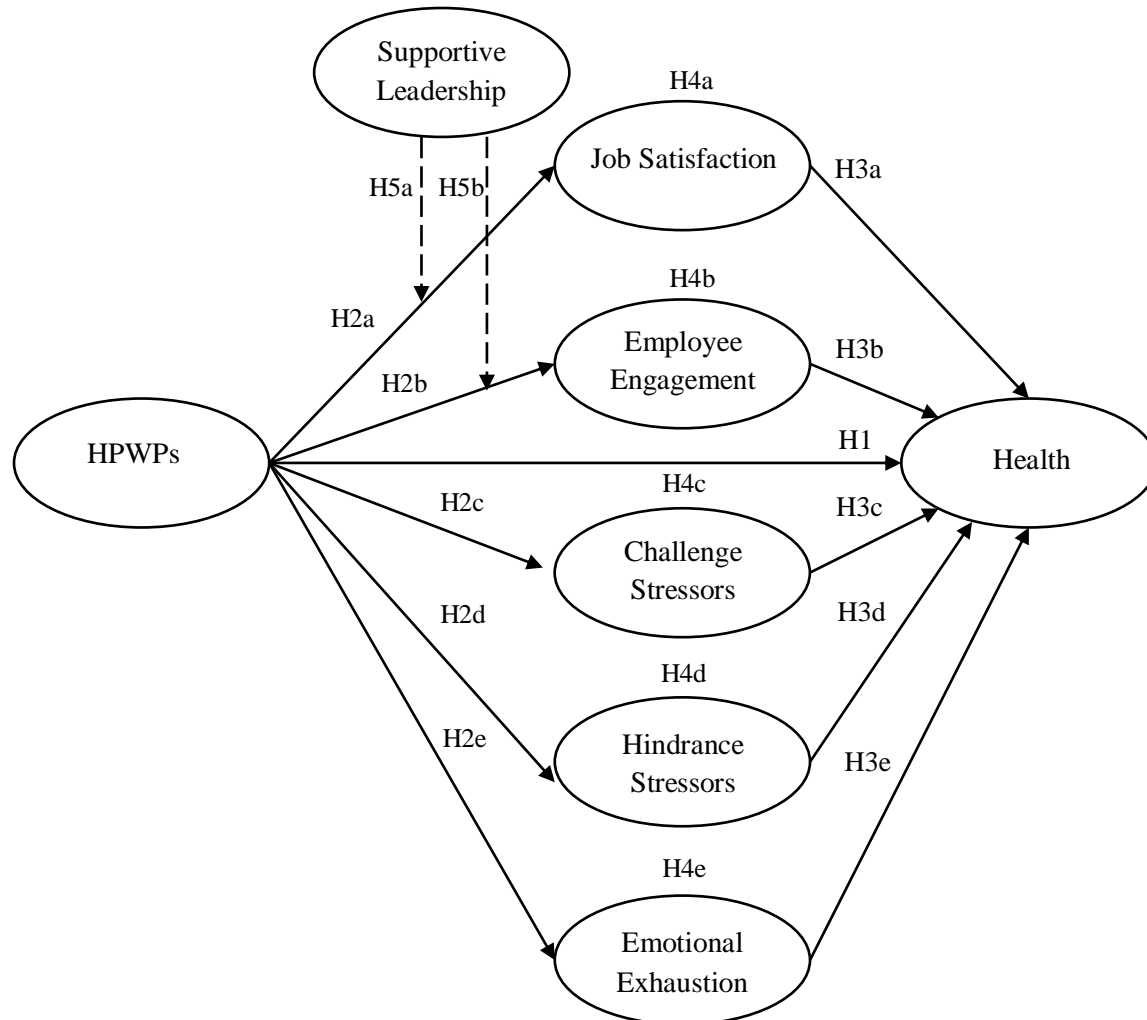


Figure 1 Research Model

3. Methods

According to the time dimension, this research design is categorized in a cross-sectional study, namely research where data collection is carried out only at one time (Sekaran & Bougie, 2016). To control for potential confounding effects and improve analytical results, work-related research should use a population of employees with homogeneous occupations to obtain the ideal sample (Sekaran & Bougie, 2016). Therefore, this study uses a population of Civil Servants in NRIA.

Determination of the number of samples used in this study using the slovin formula after knowing the population of 13,403 obtained a minimum sample of 388. In the research design use a non-probability technique, namely using a purposive sampling technique by considering active respondents as civil servants.

This research is included in the quantitative category where the data collection method in this study uses a questionnaire that is delivered to respondents via a digital link. Question items to measure the variables in the questionnaire using several previous studies. The HPWPs variable uses ten question items adopted from research (Hauff, 2019). Job satisfaction uses three question items that have been validated (Fisher et al., 2016) based on the items in the questionnaire that have been developed (Cammann et al., 1983). For the employee engagement variable adopted three question items (Schaufeli et al., 2006) and its validity is consistently recognized (Kulikowski, 2017). Hindrance stressor variable uses a five-item question (Cavanaugh et al., 2000). The challenge stressor variable uses a six-item question (Cavanaugh et al., 2000). The question items used in the challenge and hindrance stressors variables are still proven to be reliable (Huang et al., 2018). Question indicators on emotional exhaustion use five items from the Oldenburg Burnout Inventory (OLBI) scale. (Demerouti et al., 2010). All of the items used to measure emotional exhaustion proved to be still feasible to use (Edwards & Wilkerson, 2020; Mostafa, 2022). Items to measure the variable of supportive leadership using six items (Schütte et al., 2014). To measure the health variable, this study uses five items developed by (Hauff et al., 2020) from three indicators of employee health assessment. The three indicators include one question item regarding general health conditions (Baćak & Ólafsdóttir, 2017), then one item regarding absenteeism (Darr & Johns, 2008), the last three items related to rest quality (Åkerstedt et al., 2015). The variable measurement scale in this study uses 5 Likert scales, score of 1 means you strongly disagree, while a score of 5 means strongly agree. The analysis used in this study uses the PLS-SEM methodology using SmartPLS-3 software.

Table 1. Respondent Demographics

Demography	Category	Frequency	%
Gender	Male	245	60.95%
	Female	157	39.05%
Age	20-30	25	6.22%
	31-40	151	37.56%
	41-50	110	27.36%
	51-60	92	22.89%
	61-70	24	5.97%
Education	High School	35	8.71%
	Diploma	54	13.43%
	Bachelor	139	34.58%
	Master	126	31.34%
Job Position	Doctorate	48	11.94%
	Structural Position	9	2.24%
	Functional Position	303	75.37%
	Executive Position	90	22.39%

Table 2. Convergent Validity

Variables	Items	Outer Loadings	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Challenge Stressors	CS01	0.855	0.914	0.925	0.933	0.700
	CS02	0.854				
	CS03	0.852				
	CS04	0.851				
	CS05	0.892				
	CS06	0.704				
Emotional Exhaustion	EX01	0.883	0.93	0.935	0.947	0.782
	EX02	0.908				
	EX03	0.915				
	EX04	0.842				
	EX05	0.873				
Health	HE01	0.876	0.927	0.93	0.945	0.774
	HE02	0.824				
	HE03	0.902				
	HE04	0.915				
	HE05	0.878				
High-Performance Work Practices	HP01	0.856	0.955	0.957	0.962	0.715
	HP02	0.875				
	HP03	0.85				
	HP04	0.879				
	HP05	0.89				
	HP06	0.71				
	HP07	0.793				
	HP08	0.83				
	HP09	0.884				
	HP10	0.873				
Hindrance Stressors	HS01	0.866	0.905	0.911	0.929	0.725
	HS02	0.869				
	HS03	0.833				
	HS04	0.862				
	HS05	0.826				
Supportive Leadership	SL01	0.906	0.958	0.958	0.966	0.827
	SL02	0.911				
	SL03	0.893				
	SL04	0.908				
	SL05	0.926				
	SL06	0.913				
Employee Engagement	EE01	0.897	0.862	0.862	0.916	0.784
	EE02	0.891				
	EE03	0.868				
Job Satisfaction	JS01	0.85	0.865	0.866	0.918	0.788
	JS02	0.922				
	JS03	0.889				

4. Data Analysis and Result

Respondent Profile

In this study, 402 NRIA civil servants participated as respondents with the gender of the respondents being dominated by male by 60.95% as many as 245 people and female by 39.05%. Most respondents aged 31-40 years as many as 151 people or 37.56%, followed by the age group 41-50 years with 110 people or 27.36%, 51-60 years as many as 22.89%, 25-30 years as many as 6.22%, and lastly over 60 years as much as 5.97%. Respondents with bachelor education number 139 people or 34.58%, then master level 126 people or 31.34%, diploma level 13.43%, doctorate level 11.94%, and finally high school level as many as 8.71%. The working position is dominated by functional officials as much as 75.37% or a total of 303 people. Table 1 briefly outlines the respondents' demographics.

Construct Validity and Reliability

We analyzed the reliability and validity of the research instrument model using confirmatory factor analysis (CFA). In the next stage we use the structural model to assess the strength and direction of the proposed influence in the research construction. In the CFA analysis, this study uses two types of construct validity, namely convergent validity and discriminant validity. Convergent validity was tested by comparing the value of outer loadings with the minimum cut-off value (Hair et al., 2017). Meanwhile, Discriminant validity was tested to imply that the research construct was distinct and effectively captured phenomena that were not captured by other model constructions (Hair et al., 2017). There are four regulations to ensure convergent validity: outer loadings value more than 0.7, average variance extracted (AVE) value more than 0.5, and Cronbach's alpha and composite reliability above 0,7 (Hair et al., 2017). The entire calculation of convergent validity for each construct is shown in Table 2. The table shows that this research reached the minimum requirements for a convergent validity test in accordance with the thresholds recommendation (Hair et al., 2017). Furthermore, for the second stage, discriminant validity was tested by evaluating the correlation between latent variables and the AVE's square root value. The square root value of AVE must be greater than the correlation between other constructs in the model (Henseler et al., 2015). Table 3 shows the instrument in this study meets the requirements of discriminant validity.

Table 3. Discriminant Validity

	CS	EX	HE	HP	HS	SL	EE	JS
CS	0.837							
EX	-0.459	0.885						
HE	0.454	-0.523	0.880					
HP	0.511	-0.681	0.609	0.846				
HS	-0.476	0.641	-0.524	-0.571	0.851			
SL	0.224	-0.523	0.416	0.505	-0.431	0.910		
EE	0.396	-0.687	0.588	0.693	-0.571	0.478	0.886	
JS	0.505	-0.736	0.619	0.722	-0.630	0.548	0.760	0.888

Note. CS = Challenge Stressors, EX = Emotional Exhaustions, HE = Health, HP = High-Performance Work Practices, HS = Hindrance Stressors, SL = Supportive Leadership, EE = Employee engagement, JS = Job satisfaction

Structural Model and Hypothesis Testing

To test the model in the PLS analysis can use the coefficient of determination or R-square. The higher the R-square value, the greater the influence of the independent variable on other variables. R-square value below 0.25 means it has a weak level of predictive accuracy (Hair et al., 2017). Table 4 shows that there is no R-square value below 0.25, it means that none of the variables in this study have weak accuracy.

Table 4. Model Test

	R-Square	R-Square Adjusted
Challenge stressors	0.261	0.259
Emotional exhaustion	0.464	0.462
Health	0.473	0.465
Hindrance stressors	0.326	0.324
Employee engagement	0.532	0.529
Job satisfaction	0.599	0.596

Table 5. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
H1 HP→HE	0.230	0.231	0.074	3.124	0.002**
H2a HP→JS	0.500	0.504	0.043	11.639	0.000**
H2b HP→EE	0.512	0.514	0.049	10.481	0.000**
H2c HP→EX	-0.681	-0.683	0.038	17.913	0.000**
H2d HP→CS	0.511	0.512	0.038	13.376	0.000**
H2e HP→HS	-0.571	-0.572	0.045	12.568	0.000**
H3a JS→HE	0.209	0.213	0.087	2.395	0.017**
H3b EE→HE	0.183	0.182	0.079	2.311	0.021**
H3c EX→HE	0.054	0.053	0.084	0.64	0.522 ^{ns}
H3d CS→HE	0.118	0.118	0.046	2.593	0.010**
H3e HS→HE	-0.135	-0.131	0.064	2.086	0.037**
H4a HP→JS→HE	0.104	0.107	0.044	2.353	0.019**
H4b HP→EE→HE	0.094	0.094	0.044	2.156	0.031**
H4c HP→EX→HE	-0.037	-0.037	0.058	0.632	0.527 ^{ns}
H4d HP→CS→HE	0.061	0.061	0.024	2.535	0.011**
H4e HP→HS→HE	0.077	0.075	0.038	2.016	0.044**
H5a Moderating Effect 1 → JS → HE	-0.04	-0.04	0.019	2.043	0.041**
H5b Moderating Effect 2 → EE → HE	-0.033	-0.032	0.016	2.065	0.039**

Note. HP = high-performance work practices, HE = health, JS = job satisfaction, EE = employee engagement, EX = emotional exhaustion, CS = challenge stressors, HS = hindrance stressors, ** = significant, ns = non-significant.

Hypothesis testing was carried out to see the significance of the path coefficient, we use bootstrapping to test the PLS-SEM path coefficients. All of our hypothesis testing is summarized in table 5. Hypothesis 1 shows a t-statistic value of 3.124 and the original sample is 0.230, this shows that HPWPs have a significant positive effect on health. For hypothesis 2a, the original sample value is 0.500 and the t-statistic is 11.639, meaning that HPWPs have a positive effect on job satisfaction. Furthermore, hypothesis 2b, namely the effect of HPWPs on employee engagement was also revealed to be positive and significant, with a t-statistic value of 10.481 and an original sample of 0.512. Meanwhile, hypothesis 2c was found to be negative and significant, with an original sample value of -0.681 and a t-statistic of 17.913. This condition shows that HPWPs are able to have a negative impact on emotional exhaustion. Next, in Hypothesis 2d, the t-statistic value is 13.376 and the original sample is 0.511, meaning that HPWPs have a positive effect on challenge stressors. In hypothesis 2e, HPWPs have a negative effect on hindrance stressors, with a t-statistic value of 12.568 and the original sample -0.571.

The results of hypothesis testing 3a show that the t-statistic is 2.395 and the original value is 0.209, this is proves that employee health is positively impacted by job satisfaction. Then for hypothesis 3b employee engagement has a significant positive effect on employee health with the original sample value of 0.183 and t-statistics of 2.311. Hypothesis 3c was found to be insignificant with a t-statistic of 0.640. While the 3d hypothesis was found to be significant with a t-statistic of 2.593 and an original sample of 0.118, this proves that challenge stressors have a significant positive effect on health. For hypothesis 3e, the t-statistic value is 2.086 and the original sample is -0.135, so that hindrance stressors have a negative impact on health.

Meanwhile, for the mediation test variable using the indirect effect assessment hypothesis h4a, it was found that job satisfaction was able to mediate the positive effect of HPWPs on health with a t-statistic of 2.353 and an original sample of 0.104. Testing of hypothesis 4b shows that employee engagement can also act as a partial mediator between HPWPs and health with a t-statistic of 2.156 and an original sample of 0.094. While hypothesis 4c is not significant with a t-statistic of 0.632. This means that emotional exhaustion cannot have a mediating role in the impact of HPWPs on health. Meanwhile, we found that stress challenge can positively mediate the effect of HPWPs on health with a t-statistic value of 2.535 and an original sample of 0.061. Furthermore, we found that stressors may also act as partial mediators in the positive influence of HPWPs on health with a t-statistic of 2.016 and original sample of 0.077.

Finally, we tested the moderating variable for hypothesis 5a, it was found that supportive leadership was able to moderate the effect of HPWPs on health through job satisfaction with a t-statistic value of 2.043 and the original sample -0.040. Meanwhile, hypothesis 5b is also significant, with a t-statistic of 2.065 and an original sample of -0.033. In contrast, unlike our initial perspective, our results show that high supportive leadership tends to decrease the positive influence of HPWPs on health, either through employee engagement or job satisfaction.

5. Discussion

In this study, we contrive to increase understanding of the effect of implementing HPWPs on employee conditions. In essence, this research hopes that there will be research progress on the effect of HPWPs on employee health seen from two sides of JD-R. From this study, we hope to

be able to sort out variables that have positive and negative effects on employee health in the application of HPWPs.

Regarding the purpose of this study, we first propose that HPWPs have a positive effect on employee health. The results of our study confirm previous research which has been found that employee health will be better if HPWP is positioned as a job resource (Hauff et al., 2020). This condition is in line with our finding that HPWPs also have a positive impact on employee engagement and job satisfaction. Still consistent as before through the implementation of HPWPs, it can bring a better work life through a work environment that can increase employee growth (Kroon et al., 2013). The existence of this work environment supports employees to view HPWPs as job resources, it is proven that our research results show that HPWPs affected positively on challenge stressors and a negatively on emotional exhaustion and hindrance stressors. In line with our results also stated that the presence of HPWPs can be seen as a positive challenge (Hauff et al., 2020) and reduce emotional exhaustion (Conway et al., 2016; Guerci et al., 2019).

In order to achieve the objective of this study, we secondly look at the direct effect on employees of several variables that influence HPWPs. We found that job satisfaction and employee engagement had a positive effect on employee health. This complements previous research that employee engagement and job satisfaction can reduce health problems (Burton et al., 2017; Yulita et al., 2014). Then, for the challenge of stressors also affect the health of employees positively. This relationship occurs because employees perceive the challenges of stressors as work resources that challenge them to develop. This condition is similar to the findings (M. Kim & Beehr, 2018) who found that challenge stressors have a positive impact on health workers. Meanwhile, it further strengthens previous findings that hindrance stressors have a bad effect on employee health (T. Ma et al., 2018). Then for emotional exhaustion found to have no effect on health in our research model, we linked in the HPWPs system emotional exhaustion is hard to find.

The next step for the purpose of this study is to examine the indirect effect of the variables affected by HPWPs on health. The results of our study show that job satisfaction and employee engagement are able to positively mediate the effect of HPWPs on employee health. This condition strengthens the results of research (Hauff et al., 2020) which found that HPWPs have a positive effect on employee health through job satisfaction or employee engagement. In addition, we also found that challenge stressors can positively mediate the effect of HPWPs on employee health. Even though hindrance stressors have a negative impact on employee health, hindrance stressors can still be a mediator of the positive influence of HPWPs on employee health. It means that in HRM that adheres to HPWPs, it will weaken the hindrance stressors, so that the positive effects of HPWPs still apply. Meanwhile, for emotional exhaustion, we found that it could not significantly mediate the effect of HPWPs on employee health. This reinforces the view of Hauff et al. (2020) that the implementation of HPWPs does not only affect work performance, but also becomes a symbiotic mutualism with improving employee conditions, namely employee health. This condition can be achieved by having employees view HPWPs in the JD-R model as job resources, not as job demands (Bakker & Demerouti, 2014).

To complete the aim of this study, we examined the moderating effect of supportive leadership.

Our test results found that in contrast to the initial perspective, the presence of high supportive leadership tends to reduce the positive influence of HPWPs on health mediated by job satisfaction or employee engagement. This condition is in line with the opinion Nguyen et al. (2015) which characterizes the existence of a substitutive relationship between HRM and leadership, if one of them already exists, one of them will have little or no effect. This opinion is supported through empirical studies that find promotion opportunities under supportive leadership conditions are not important (Marescaux et al., 2019). It is similar to the results of our study showing that it is necessary to consider the substitution relationship between HRM and leadership through practice and research.

6. Conclusion

In the practice of HPWPs, there are many consequences, both positive and negative, that must be accepted by the institutions more specifically to employees. Our results show that HPWPs as HRM contribute to employee well-being. However, based on the JD-R model (Bakker & Demerouti, 2014) more specifically the impact of HPWPs on employee well-being will have a positive impact when viewed from the side of job resources and will have a negative impact when viewed as job demands. Therefore, agencies must also pay attention to the effect of implementing HPWPs on employee well-being, not only on work performance. As the results of our research, HPWPs provide positive benefits to employee health through job satisfaction, employee engagement, challenge stressors and also hindrance stressors. In addition, the results of our research also found that the presence of HPWPs was also able to directly reduce levels of hindrance stressors and emotional exhaustion, both of which could increase with increasing aspects of demands (Peccei & Van De Voorde, 2019). More interestingly, supportive leadership is able to moderately reduce the positive effects in the HPWPs system on employee well-being, especially health. According to our research, employee frequently view the HPWPs system as a job resource when it is functioning properly, so that there is no anxiety about negative effects or demands. Even in HRM systems such as HPWPs that are already good, supportive leader behavior tends to be unnecessary, and even has a negative effect. Therefore, agencies need to focus more on the JD-R dosage (Guerci et al., 2019) in the sense that job demands should not exceed job resources and it is more important to maintain leadership intervention (Marescaux et al., 2019) so that in practice HPWPs can provide benefits to employee well-being. -being.

Furthermore, to providing positive benefits in implementing HPWPs on employee conditions, this study also has limitations. First, this research was conducted quantitatively and was cross-sectional in one government institutions. Therefore, in future research, qualitative and longitudinal studies can be carried out as well as in a wider population coverage. Second, we have not investigated in detail the effect of each component in HPWPs. Therefore, further research should be more specific to investigate the eight components in the practice of HPWPs which parts should be improved and reduced to create more prosperous employee well-being.

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