sustainability

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At Work with Sustainable Well-Being and Sustainable Performance: Testing the DISC Model Among Office Workers

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Abstract: There is increasing interest in sustainable employment throughout employees' careers, which makes sustainable work environments more and more important. This study investigates key components of sustainable work systems (i.e., job demands and job resources) and their association with employee sustainable well-being and sustainable performance. Specifically, using two prominent theoretical frameworks, the interaction between job demands and job resources was studied on the one hand and sustainable well-being and performance on the other. A cross-sectional survey study using online questionnaires was performed among 154 office workers of a business operations department. Moderated regression analyses revealed that emotional demands were negatively associated with sustainable performance in the case of *low* emotional resources (−1 *SD*, $b = -0.14$, $p = 0.025$), and this relation was buffered (and even reversed) in the case of *high* emotional resources (+1 *SD*, $b = 0.11$, $p = 0.042$). Regarding sustainable well-being, results revealed that higher cognitive job resources were associated with higher sustainable well-being ($b = 0.13$, $p = 0.041$). It can be concluded that enhancing job resources as key drivers of sustainable well-being and sustainable performance is important. The discussion addresses theoretical and practical implications, adding to the expanding knowledge of sustainable work systems.

Keywords: employee sustainable well-being; employee sustainable performance; Demand-Induced Strain Compensation Model; Challenge-Hindrance Stressor Framework; job demands; job resources; office workers

Academic Editor: Lucian-Ionel Cioca

Received: 13 December 2024
Revised: 8 January 2025
Accepted: 14 January 2025
Published: 15 January 2025

Citation: Jonge, J.d.; Peeters, M.C.W. At Work with Sustainable Well-Being and Sustainable Performance: Testing the DISC Model Among Office Workers. *Sustainability* **2025**, *17*, 643. https://doi.org/10.3390/su17020643

1. Introduction

There has been a notable increase in interest regarding the establishment of sustainable organizations [1]. The concept of sustainability initially emerged from ecological principles, encompassing the capacity of systems and processes to grow and endure over time [2,3]. Sustainability can also be defined as the endeavor to utilize, conserve, and/or recycle natural resources in an efficient manner, with the overarching objective of preserving the integrity of the entire ecosystem [3]. For instance, ecological sustainability involves the conservation of natural ecosystems and the regeneration of natural resources such as forests, soil, and water, combined with the development of innovative technologies that aim to reduce environmental impact. The approach by which organizations conduct their business to safeguard the environment is referred to as 'green management practices' [4]. Green management practices can be generally considered a type of environmentally conscious

business management that focuses on preventing or minimizing waste, pollution, and emissions [5]. Businesses often engage in green management practices to respond to political pressures, but also to mitigate economic costs and meet various stakeholders' expectations by adhering to social and moral norms [4].

To date, sustainability has become an appealing research topic for many research disciplines—not only for ecologists but also for economists, engineers, lawyers, and even psychologists. A modern and more holistic approach to sustainability is about both ecological sustainability and the sustainable well-being of future generations—both humans and animals. Such a multidisciplinary and holistic focus prompts critical inquiries: What considerations are made for *human* sustainability? How should organizations manage their *human* resources to foster sustainable practices? What are the sustainable implications of management strategies on employee well-being and performance in the long run? For that very reason, this study investigates key components of sustainable work systems and their relation with employee's sustainable well-being and performance. Sustainability in the workplace was first introduced by Docherty and his team in the early 2000s [6]. At that time, they expressed an urgent concern that the world of work was heading in the wrong direction, with employees trapped in a cycle of mounting job demands, diminishing job resources, and declining occupational rewards. They emphasized the importance of devising future alternatives and proposed that the future of work should focus on sustainable work systems rather than on the existing dominant intensive work systems. Intensive work systems are characterized by maintaining productivity at the expense of depleting all kinds of resources, which can ultimately harm both employees and the quality of products or services. In contrast, sustainable work systems focus on regenerating and renewing these resources through the work process while still maintaining employees' productivity. According to Docherty et al. [6], sustainable work systems are crucial for achieving sustainable well-being and sustainable work performance, as well as ensuring long-term human sustainability.

Sustainable well-being emphasizes creating a healthy, supportive, and productive work environment for employees. This involves ensuring physical and mental health and fostering a positive work-life balance [7]. Building on the work of Docherty and colleagues [6], Ji et al. [7] introduced a working definition of sustainable performance, describing it as "a self-regulatory process in which an individual worker enduringly and efficiently achieves particular desired work goals while maintaining a satisfactory level of well-being" (p. 4). A crucial question to address is how organizations can ensure the state of sustainable well-being employees need for sustainable work performance. More specifically, which elements of work systems have the most significant impact on employee sustainable well-being and performance? Research by the European Foundation for the Improvement of Living and Working Conditions [8] has provided a clear answer. According to this research, the most direct and obvious determinant of sustainability at work is the *work itself*, operationalized as job quality and typically measured by job characteristics such as job control, skill use, career opportunities, and a supportive social work climate. A sustainable work system emphasizes the preservation of non-renewable job resources and the regeneration of renewable job resources. Applied to work itself, this primarily involves ensuring sufficient job resources to meet high job demands.

1.1. Demand-Induced Strain Compensation Model

The significant implications of job demands and the compensatory role of job resources in promoting sustainable well-being and sustainable performance among employees warrant further examination. According to Docherty et al. [6], new approaches are needed to achieve a good balance between intensive and sustainable work systems, but well-

developed theories, models, and examples are rather scarce. The Demand-Induced Strain Compensation (DISC) Model, initially developed by De Jonge and Dormann [9,10], offers a decent theoretical framework for understanding the specific role of job resources in the relation between job demands and sustainable employee outcomes. This model distinguishes itself from other work stress frameworks by positing that the compensatory effects of job resources are largely contingent upon the 'match' between various types of job demands and job resources.

Specifically, the DISC Model is founded on two principal tenets: the multidimensionality principle and the matching principle [10]. The multidimensionality principle asserts that job demands, job resources, and well-being and performance outcomes comprise cognitive, emotional, and/or physical dimensions. Job demands may manifest as cognitive (e.g., high levels of concentration required), emotional (e.g., managing emotions in response to aggressive customers or clients), or physical (e.g., the necessity of lifting heavy equipment). Similarly, job resources can be cognitive (e.g., autonomy over work methods), emotional (e.g., receiving support from colleagues), or physical (e.g., access to ergonomic equipment). The model also categorizes well-being and performance outcomes into cognitive, emotional, and/or physical domains, which may yield either negative effects (e.g., concentration difficulties, emotional exhaustion, physical exhaustion) or positive effects (e.g., employee creativity, emotional strength, physical strength).

The model's second tenet, the matching principle, asserts that the compensatory effects of job resources are most pronounced when specific types of resources correspond with specific job demands. This means that the job resources utilized by employees should be particularly relevant to the demands they encounter. For instance, in the case a worker faces a complex work-related problem (i.e., cognitive job demands), he or she particularly needs cognitive job resources (e.g., access to relevant information or job control) rather than physical job resources to deal with these demands. Or, emotional rather than instrumental support from colleagues as a job resource is most likely to buffer the association between emotional demands (such as having to deal with angry clients) and emotional exhaustion. Or, a worker required to transport heavy equipment (i.e., physical job demands) would derive greater benefit from utilizing a dolly (i.e., a matching physical resource) than from seeking emotional support from a colleague (i.e., a less or even non-matching job resource). Furthermore, the matching principle emphasizes that demands and resources should align with relevant well-being and performance outcomes as well.

The DISC Model is further guided by two subprinciples concerning compensation and balance mechanisms [10]. The compensation mechanism, or stress-buffering mechanism, suggests that the negative health consequences of high job demands can be mitigated if employees possess adequate job resources to address their demanding responsibilities. For example, an emotionally taxing task may result in reduced emotional exhaustion when supported by ample emotional job resources. Conversely, the balance or activation-enhancing mechanism indicates that high demands can yield positive outcomes, provided that individuals possess sufficient complementary resources. When individuals have substantial supportive resources, they can explore diverse strategies for managing their demands. This matching of demands and resources can culminate in favorable outcomes, such as increased well-being and performance. For example, a cognitively challenging task may thereby enhance cognitive vigor and performance only when paired with high cognitive job resources.

Since its inception in 2003, the DISC Model has undergone extensive validation through various empirical studies across numerous countries. A diverse range of participants has been involved, predominantly human services workers from fields such as nursing, retail, and education. Additionally, university staff and students [11], IT special-

ists [12], professional athletes and coaches [13], and recreational runners [14] have also contributed to DISC research. Notably, several narrative review studies were performed across varying occupational groups in multiple countries to assess the empirical foundation of the matching principle [10,12,15]. Their findings demonstrated substantial empirical support for the model, reinforcing its effectiveness and relevance in diverse settings.

1.2. Central Aim and Hypotheses

Guided by the assumptions of the DISC Model, this study aims to explain the (interactive) relation between job demands and job resources on the one hand and sustainable well-being and performance on the other (see Figure 1). An additional question is what precise assumptions can be made with different types of job demands and job resources (as well as their interactions) as potential determinants of these sustainability outcomes. Cavanaugh et al.'s [16] Challenge-Hindrance Stressor Framework (CHSF) offers additional explanations. Since its introduction two decades ago, it has received considerable attention and has become a dominant perspective in the work stress literature accordingly [17]. For brevity, this model posits that job demands (called "stressors" in the CHSF) can be broadly classified into two categories: (1) challenge stressors and (2) hindrance stressors. It is assumed that challenge stressors are directly and positively related to work performance but also indirectly inhibit work performance by increasing the level of job strain. Hindrance stressors are assumed to inhibit work performance both directly and indirectly through job strain [17,18]. Cognitive demands, such as complex problem-solving or decision-making tasks, are often perceived as challenge stressors because they could provide opportunities for personal growth, skill development, and achievement. In contrast, emotional and physical demands, such as managing interpersonal conflicts or enduring prolonged physical exertion, are more likely to be perceived as hindrance stressors. These types of demands are often seen as obstacles to achieving goals and are associated with negative outcomes, including increased job strain and exhaustion. Although the distinction between challenge and hindrance stressors is not as strict as originally stated [17], empirical research showed that hindrance stressors are generally more strongly associated with negative performance effects, while challenge stressors repeatedly have positive performance effects [19].

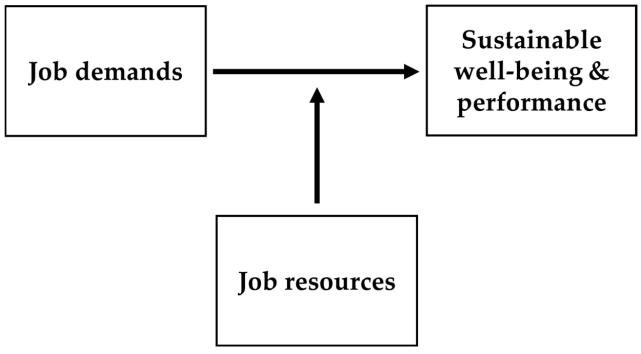

Figure 1. Research model of the present study.

In agreement with the assumptions of the DISC Model and the additional statements of the CHSF, our hypotheses are formulated as follows:

Hypothesis 1a: Cognitive job resources amplify the positive relation between cognitive job demands and sustainable well-being (two-way interaction).

Hypothesis 1b: Cognitive job resources amplify the positive relation between cognitive job demands and sustainable performance (two-way interaction).

Hypothesis 2a: Emotional job resources buffer the negative relation between emotional job demands and sustainable well-being (two-way interaction).

Hypothesis 2b: Emotional job resources buffer the negative relation between emotional job demands and sustainable performance (two-way interaction).

Hypothesis 3a: Physical job resources buffer the negative relation between physical job demands and sustainable well-being (two-way interaction).

Hypothesis 3b: Physical job resources buffer the negative relation between physical job demands and sustainable performance (two-way interaction).

2. Materials and Methods

2.1. Study Design, Data, and Procedure

A cross-sectional survey was conducted among all office workers of a business operations department of a consumer goods industry with branches throughout Europe. We used Qualtrics CoreXM software (https://www.qualtrics.com, accessed on 5 December 2024) to create a web-based questionnaire. In addition to short-answer questions for demographics, the survey consisted of Likert-scale questions to measure the key variables. An online informed consent form was included, explaining the confidentiality of the questionnaire. Filling out the questionnaire was only possible after agreeing with the informed consent. Subsequently, an email invitation was sent to 215 office workers, of which 154 people returned the questionnaire (72% response rate) within one month. The mean age of the participants was 35.1 years (*SD* = 10.9; range 20–64); 55% were male (*n* = 84) and 45% were female (*n* = 70). About employees' educational level, the majority completed a Master's degree (56%), and the remaining people finished a Bachelor's degree (44%). The average work experience was 11.6 years (*SD* = 11.1), the average working hours per week was 39.9 h (*SD* = 8.3), and 24% had a supervisory role (*n* = 36).

2.2. Variables and Instruments

2.2.1. Job Demands and Job Resources

Job demands and job resources were assessed using a brief, validated version of the DISC Questionnaire (DISQ-S 3.1; [20]) that was specifically designed for testing the DISC Model. The DISQ-S embraces six scales that address cognitive, emotional, and physical demands and resources. Each scale contains three items, except for cognitive resources, which entails four items. Participants rated these items on a five-point frequency scale, ranging from (1) "never or very rarely" to (5) "very often or always". For job demands, example items include: "I need to display high levels of concentration and precision at work" (cognitive demands; McDonald's omega = 0.76), "I have to do a lot of emotionally draining work" (emotional demands; McDonald's omega = 0.74), and "I have to perform many physically strenuous tasks to carry out my job" (physical demands; McDonald's omega = 0.86). Regarding job resources, example items are: "I have the opportunity to determine my own work method" (cognitive resources; McDonald's omega = 0.66), "In my job, I receive emotional support from others (e.g., colleagues or supervisors) when I face a threatening situation at work" (emotional resources; McDonald's omega = 0.88), and "I have access to adequate technical equipment to carry out physically strenuous tasks" (physical resources; McDonald's omega = 0.77).

2.2.2. Employee Sustainable Well-Being

Sustainable well-being was measured using eight adjectives to tap job-related well-being as developed by Warr [21] based on his circumplex model of pleasure and arousal.

We added an exordium in front of the items to express the sustainable nature of well-being: "During my entire career, I expect that I will be able to…". The items were rated on a five-point Likert scale ranging from 1 'strongly disagree' to 5 'strongly agree'. Example items are "During my entire career, I expect that I will be able to stay continuously cheerful in my work" and "During my entire career, I expect that I will be able to stay continuously enthusiastic in my work". Principal component analysis revealed a solid one-factor structure for the eight items, as well as a good internal consistency (McDonald's omega = 0.89).

2.2.3. Employee Sustainable Performance

Sustainable performance was assessed using a 10-item scale developed by De Jonge et al. [22] that has been empirically validated by Wouters [23] and Ji et al. [7]. Because sustainable performance is about longer-term work performance, and ideally throughout an employee's career, we have integrated this into this scale. Terms that refer to work performance over a sustained, lifelong work period are included. The original exordium was also changed from "At this time…" to "Throughout my career, I expect that I will be able to…". Finally, we changed the original seven-point scale (ranging from 1 'not at all characteristic' to 7 'completely characteristic') to a simpler five-point Likert scale (ranging from 1 'strongly disagree' to 5 'strongly agree'). Sample items include "Throughout my career, I expect that I will be able to continuously meet the goals of my position" and "Throughout my career, I expect that I will be able to persistently perform well in the overall job by carrying out tasks as expected". The ten items showed a clear one-factor structure (cf. [7]) and a good internal consistency (McDonald's omega = 0.87).

2.2.4. Demographic Variables

Several demographic variables were included in this study, such as gender (0 = female; 1 = male), age (in years), work experience (in years), actual work week (in hours), and supervising role (0 = no; 1 = yes). They were included as control variables since they have been shown to play a role in work stress, well-being, and performance research (e.g., [24]). We did not include education as a control variable as all employees were relatively highly educated, and hence, there was not enough variation to act as a confounder.

2.3. Statistical Analysis

IBM SPSS® for Windows, version 29 (SPSS Inc., Chicago, IL, USA) was used for the statistical analyses performed. First, we calculated the means, standard deviations, and zero-order Pearson correlations between the variables. Next, we performed hierarchical multiple regression analyses (HMRAs), including interactions, to examine the (interactive) relations between job demands and job resources, as well as their effects on sustainable well-being and sustainable performance. We checked for any significant violations of linear regression assumptions in line with the recommendations of Laverty and Kelly [25].

In the first step of the analysis, we entered demographic characteristics alongside standardized main variables for both job demands and job resources (Model 1). In the second step, we explored the moderating effects of job resources by including multiplicative interaction terms of standardized demands and resources as reflected by Model 2 (cf. [26]).

Consistent with Aiken and West's [27] suggestions, we graphically represented the moderating effects of job resources using a Microsoft Excel template. Additionally, we computed significance tests for the slopes of the simple regression lines according to the guidelines established by Dawson [26].

3. Results

An initial review of the Pearson zero-order correlations presented in Table 1 reveals that cognitive and emotional demands were negatively related to sustainable well-being.

Additionally, all but one of the job resources were positively associated with both sustainable well-being and sustainable performance. Finally, there is a relatively strong positive correlation between sustainable well-being and sustainable performance.

Table 1. Means (*M*), standard deviations (*SD*), and Pearson correlations among study variables (n = 154).

Variables	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	0.55	0.50												
2. Age	35.14	10.85	−0.11											
3. Working hours	39.94	8.33	0.22 **	−0.34 **										
4. Work experience	11.61	11.12	−0.12	0.77 **	−0.34 **									
5. Supervisory role	0.24	0.43	0.10	−0.01	0.20 *	−0.01								
6. Cognitive demands	3.69	0.68	0.08	−0.07	0.28 **	−0.09	0.09							
7. Emotional demands	2.30	0.77	0.03	0.03	0.11	0.03	0.25 **	0.37 **						
8. Physical demands	1.48	0.72	−0.08	0.19 *	−0.09	0.21 **	−0.11	−0.06	0.41 **					
9. Cognitive resources	3.73	0.51	0.13	−0.11	−0.05	−0.15	−0.08	−0.02	−0.20 *	−0.00				
10. Emotional resources	3.67	0.77	−0.04	−0.13	0.07	−0.13	−0.17 *	0.07	−0.08	−0.03	0.41 **			
11. Physical resources	3.00	0.99	0.02	−0.09	−0.03	−0.07	−0.05	−0.20 *	0.04	0.21 **	0.32 **	0.34 **		
12. Sustainable well-being	3.73	0.60	0.03	−0.05	−0.14	−0.06	−0.02	−0.16 *	−0.25 **	−0.05	0.34 **	0.24 **	0.16 *	
13. Sustainable performance	3.74	0.52	0.01	0.07	−0.11	0.04	−0.02	−0.02	−0.05	−0.05	0.26 **	0.23 **	0.12	0.45 **

Note: * significant at $p < 0.05$; ** significant at $p < 0.01$ (two-tailed).

Determinants of Employee Sustainable Well-Being and Performance

We tested both job demands and job resources as well as their interactions as determinants of employee sustainable well-being and performance, controlling for demographic characteristics. Table 2 shows the two regression models tested for sustainable well-being and sustainable performance. Regarding well-being, the main effect model (M_1) was statistically significant ($F(11, 142) = 2.23$, $p = 0.016$). Specifically, cognitive job resources were positively related to sustainable well-being ($b = 0.13$, $p = 0.041$). Overall, the explained variance (R^2) was 19% for sustainable well-being.

Table 2. Hierarchical regression analyses for job demands and job resources predicting sustainable well-being and sustainable performance (n = 154).

	Sustainable Well-Being		**Sustainable Performance**	
	b	SE	*b*	SE
M_1: Control variables				
Gender	0.04	0.12	0.00	0.10
Age	0.00	0.02	0.03	0.02
Working hours	−0.01	0.01	0.00	0.01
Work experience	−0.01	0.02	−0.02	0.02
Supervisory role	0.16	0.14	0.05	0.13
Demands and resources				
Cognitive demands	−0.03	0.06	−0.02	0.06
Emotional demands	−0.13	0.08	−0.01	0.07
Physical demands	0.03	0.07	−0.10	0.07
Cognitive resources	0.13 *	0.06	0.04	0.06
Emotional resources	0.09	0.06	0.10	0.06
Physical resources	0.01	0.06	0.03	0.06
M_2: Interaction effects				
Cog. dem. x cog. res.			−0.03	0.05
Emo. dem. x emo. res.			0.12 *	0.06
Phy. dem. x phy. res.			0.05	0.06
Model test	$R^2 = 0.19$ $F(11, 142) = 2.23$ *		$R^2 = 0.18$ $F(14, 139) = 1.94$ *	
Best fitting model	M_1		M_2	

Note: * $p < 0.05$ (two-tailed).

As far as employee sustainable performance is concerned, the interactive model M_2 appeared to be statistically significant ($F(11, 139) = 1.94$, $p = 0.039$), which was merely due to the interaction of emotional demands and emotional resources in the prediction of sustainable performance ($b = 0.12$, $p = 0.036$). Figure 2 shows a breakdown of the interaction effect in terms of two different slopes. The simple slope *t*-tests indicated that an increase in emotional demands was related to less sustainable performance in the case of low emotional resources (-1 *SD*; $b = -0.14$, $t(139) = -1.97$, $p = 0.025$). In contrast, an increase in emotional demands was related to more sustainable performance in the case of high emotional resources (+1 *SD*; $b = 0.11$, $t(139) = 1.74$, $p = 0.042$). Finally, the explained variance (R^2) for the best-fitting regression model M_2 was 18%.

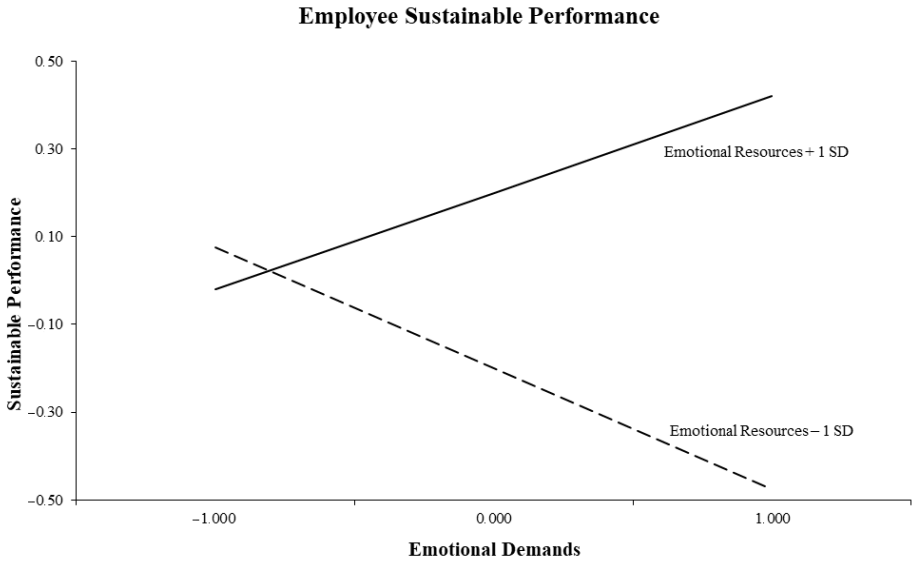

Figure 2. The interaction effect between emotional demands and emotional resources in the prediction of employee sustainable performance.

4. Discussion

The current study investigated the compensatory role of job resources in the relation between job demands on the one hand and sustainable well-being and performance on the other. We used the DISC Model's matching principle in a cross-sectional sample of office workers to determine whether a match exists between specific job demands and corresponding job resources predicting sustainable well-being and performance. Overall, one out of our hypotheses was supported (i.e., H2b): Emotional demands were negatively associated with sustainable performance in the case of *low* emotional resources, and this relation was buffered (and even reversed) in the case of high emotional resources. Concerning sustainable well-being, results revealed that higher cognitive job resources were associated with higher sustainable well-being.

4.1. Theoretical Implications

This study makes several theoretical contributions to the understanding of employee sustainable well-being and performance. First, this study adds to current knowledge on sustainability at work by revealing how sustainable well-being and performance can be conceptualized among employees. It is grounded in and shaped by previous research on employee well-being and work performance but focuses on a longer-term perspective (e.g., [7,28]). Second, making use of the DISC Model [9] and, to a lesser extent, the CHSF [16] as theoretical frameworks underscores the need for a more holistic approach to studying sustainability at work. Specifically, following the matching principle of the DISC Model, we found an interaction effect between emotional demands and emotional

resources on employee sustainable performance. This result is also in agreement with the CHSF of Cavanaugh et al. [16], which proclaims that hindrance demands, such as emotional demands, are negatively related to performance outcomes. Ji et al. [29] found an identical—albeit bivariate—negative relation between emotional demands and sustainable performance in nearly 1200 Chinese employees from various occupational sectors. What makes the present finding interesting is that this negative association was only present in the case of *low* emotional resources. Specifically, the valence of the relation turned positive in the case of *high* emotional resources. High job resources can buffer the negative effects of hindrance demands and can even change them into positive performance effects accordingly. Generally, several scholars already mentioned that challenge demands may be appraised as hindrances in some circumstances (cf. [17]). This was partly explained by indicating that aspects of the work context are likely to affect the extent to which challenge demands are appraised as hindrances. Examples of such contextual factors are (destructive) leader behaviors (e.g., [30]) and (lack of) perceived organizational support (e.g., [31]). The current study shows that it could also be the other way around: hindrance demands could be appraised as challenging in the case of contextual factors such as emotional resources are high. This is not completely surprising as emotional resources comprise supportive elements such as emotional support from supervisors or colleagues. So, to further integrate the CHSF with the DISC Model, we encourage researchers to thoroughly investigate the role of job resources in moderating the effects of challenge and hindrance demands on (sustainable) well-being and performance outcomes.

Earlier in this study, we defined sustainable performance as a self-regulatory process in which a worker enduringly and efficiently achieves desired work goals while maintaining a satisfactory level of sustainable well-being [7]. What makes work performance *sustainable* is well described by Dorenbosch [32]. According to him, good employee sustainable performance is a function of sufficient resources on the one hand and the allocation and regeneration of resources on the other. So, in the current study, job resources make a meaningful difference in meeting job demands to engage sustainable performance. This is in agreement with the ideas and suggestions of Docherty and his team [6]. Sustainable work systems ideally focus on regenerating and renewing job resources through the work process to maintain employees' performance in the long run.

Regarding sustainable well-being, only cognitive resources (i.e., job autonomy) were predictive in that higher cognitive job resources were associated with higher sustainable well-being. Nielsen et al. [33] performed a meta-analytic study based on 84 high-impact, quantitative studies and examined which types of resources are most important in predicting employee well-being. Overall, their meta-analysis confirmed that job resources, such as job autonomy, are positively related to employee well-being. This is not surprising as job autonomy plays a crucial role in prominent work environment models such as Hackman and Oldham's [34] Job Characteristics Model and Karasek's [35] Demand-Control Model. Cognitive resources have motivational potential and may lead to higher sustainable well-being through two different mechanisms. First, cognitive resources may fulfill basic human needs, such as the needs for autonomy, competence, and relatedness [36]. Second, cognitive resources may enable workers to achieve their work goals, resulting in good well-being through extrinsic motivation [37]. In a cross-sectional and longitudinal study by Clausen et al. [38] among 4340 workers, an identical positive association was found between job autonomy and employee well-being. They explained this positive relation by stating that, as a job resource, job autonomy is instrumental for workers to deal successfully with job demands and that the possibility of exercising discretionary behaviors in the workplace may contribute to sustainable growth, learning, and development. Finally, Roczniewska and her team [39] performed a systematic review to synthesize evidence

concerning job demands and job resources and their relations to three facets of sustainable employment: employee well-being, health, and performance. Reviewing 202 research studies in total, they found stronger support for the beneficial roles of job resources (e.g., job autonomy, learning opportunities, and social support) than for the detrimental roles of job demands for employee well-being and performance. All these review findings are in line with the current study results that (1) of all job resources, only higher cognitive resources were related to higher sustainable well-being, and (2) that job resources are more important than job demands in predicting this kind of outcome.

4.2. Limitations and Future Research

Several limitations have been identified in the present study. Firstly, it is cross-sectional in nature, which limits our ability to establish profound cause-and-effect relations. While we have proposed a causal ordering of the constructs using decent theoretical frameworks, it is also possible that the relations could operate in reverse. For instance, a person's score on sustainable performance might influence the level of job demands and job resources they experience. Moreover, Rosen et al. [40] argued that the predictability of job demands affects how they are perceived, specifically whether they are seen as challenges or hindrances. The authors suggest two key points: (1) while the frequency of challenge demands remains stable in certain jobs, it can vary in others, and (2) job demands that can be anticipated allow workers to adapt, whereas fluctuating or unpredictable job demands prevent preplanning and are more likely to be seen as hindrances. This is also reflected in the current study's scores on the different kinds of job demands: cognitive demands scored relatively high (which is common in office work), whereas emotional and physical demands scored much lower (cf. [15]). Therefore, any causal relations should be interpreted with caution, and further longitudinal research is essential [41]. Additionally, we must question whether sustainable well-being and sustainable performance, as measured in this study, truly predict future well-being and work performance. Employees' expectations about the future could be contaminated with personal characteristics such as optimism and self-efficacy. This cannot be determined through cross-sectional research as extensive multi-wave studies based on longitudinal panel research are required. Furthermore, the sample of office workers is not very large and has been derived from a single organization in a European country, which suggests that further generalization of the current findings to other organizations and countries is advisable. Finally, this survey study employed a self-reported data collection method, which may introduce certain biases (including social desirability bias and recall bias) and method variance [42]. As a result, participants might overstate or understate their responses to the questionnaire. However, expected interaction effects were found, which are generally less likely to be the result of method variance. Notwithstanding the latter, to address these self-reported biases and method variance, future research might consider using a mixed methods longitudinal data collection strategy using both quantitative and qualitative data, including additional input from supervisors and peers (cf. [43]).

4.3. Practical Implications

Our research study provides important practical and managerial insights for organizations aiming to improve employee sustainable well-being and performance. Nowadays, organizations have to deal with demographic trends such as aging, longer work careers, hybrid work, and a decent work-life balance. This implies that keeping office workers working and productive from a lifetime perspective while staying vital and healthy is of utmost importance [7]. Therefore, to promote the sustainability of both employee well-being and work performance, it is highly advisable to develop sustainable work systems [6]. Our

findings highlight the significance of prioritizing enhancing *job resources* as key drivers of sustainable employment. There is a plea to train office workers to better cope with their job demands. Since job demands cannot be altered in many situations, increasing job resources becomes an appealing option for both employees and managers [10]. The primary focus should be on work-related interventions that amplify job resources, especially those resources that align with specific job demands (cf. [9]). Our findings indicate that enhancing the presence and utilization of cognitive job resources, such as job autonomy and easy access to useful information, enables employees to improve their sustainable well-being. Suggestions for organizations to improve job autonomy are to empower office workers by giving them authority to make decisions related to their work, including setting their own goals, choosing their work methods, and managing their work schedules. In addition, managers are advised to equip office workers with the relevant knowledge and skills they need to perform their tasks autonomously and independently. It is also important to offer supervisory support while promoting job autonomy. Regular feedback sessions can help office workers feel supported. Currently, *job crafting* is an effective work-related intervention strategy that allows workers to adjust their job resources given their job demands [44]. Job crafting can be seen as proactive behavior where employees seek out their resources and challenges. Managers must understand that individual employees know their jobs best and are capable of determining how their roles can be aligned with their skills and preferences. To conclude, improving the sustainable well-being of workers by enhancing cognitive job resources is crucial for maintaining a healthy, productive, and engaged workforce.

Our results further indicate that emotional resources, particularly emotional support from supervisors and close colleagues, are important for office workers in managing emotional demands to improve sustainable performance. Intervention strategies aimed at enhancing emotional support should focus not only on ensuring the availability of these resources but also on encouraging workers to seek compassion and camaraderie from their closest networks. One could further think of implementing peer support programs and team-building activities to strengthen relationships and build trust among colleagues. Managers are encouraged to practice active listening and empathy. This means giving full attention to workers, acknowledging their feelings, and responding thoughtfully. It is also recommended that training on empathy and emotional intelligence be provided to help supervisors understand and respond to workers' emotional needs. Additionally, both giving and receiving social support in the workplace can amplify workers' positive emotions (cf. [45]). Given all these practical suggestions, it is of utmost importance to create a safe working environment in which there is sufficient room for social support from supervisors and colleagues. Ultimately, employees with higher scores of sustainable performance not only experience higher levels of sustainable well-being, but they also seem eager to create a sustainable future for themselves and the organization as a whole.

5. Conclusions

The present study offers valuable insights into how job resources can compensate for and ideally match job demands in relation to employee sustainable well-being and performance. Moreover, it adds empirical evidence to the DISC Model [9] and its matching principle, as well as to the CHSF [16]. The findings support the creation of sustainable work environments, emphasizing the need to maintain a proper balance between specific job demands and corresponding job resources. In a sustainable work environment, essential components include the preservation and regeneration of important job resources, such as job autonomy and workplace social support. The overarching organizational goal should be to cultivate a workforce of engaged and vital employees who are expected to be sustainably productive in the longer term.

Author Contributions: Conceptualization, J.d.J. and M.C.W.P.; methodology, J.d.J.; validation, M.C.W.P.; formal analysis, J.d.J.; investigation, J.d.J.; resources, J.d.J.; data curation, J.d.J.; writing—original draft preparation, J.d.J.; writing—review and editing, J.d.J. and M.C.W.P. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted by the Declaration of Helsinki and the American Psychological Association and approved by the Institutional Review Board of Eindhoven University of Technology.

Informed Consent Statement: Informed consent was obtained from all participants involved in the study. Filling out the questionnaire was only possible after agreeing with the informed consent.

Data Availability Statement: Empirical data are available upon reasonable request from the first author and can be used for scientific reasons only.

Acknowledgments: The support of Alexander Schoonderwoerd with data collection, scale development and testing, and basic statistics is highly valued.

Conflicts of Interest: The authors declare no conflicts of interest.

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