SUSTAINABLE HUMAN RESOURCE MANAGEMENT AND JOB SATISFACTION: A CROSS-CULTURAL PERSPECTIVE FROM 54 COUNTRIES — UNLOCKING THE POWER OF ORGANIZATIONAL IDENTIFICATION

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ABSTRACT

Sustainable human resource management is gaining importance in organizations due to its role in developing a sustainable work environment and well-being. This paper discusses the relationship between employee perceptions of sustainable human resource management practices and job satisfaction in 54 countries. Building on Social Identity Theory, we propose that sustainable HRM practices increase job satisfaction. We further propose that this relationship is moderated by employees' identification with the organization and country-level individualism-collectivism. Thus, we assume that national culture functions as a second-level moderator of the effect of sustainable HRM x organizational identification on job satisfaction. Findings from the multi-level analyses using data from 14,502 employees nested within 54 countries provided support for our hypotheses, that is, employee perceptions of sustainable HRM practices were positively associated with job satisfaction and this relationship was more pronounced for employees with lower levels compared to higher levels of organizational identification in individualistic rather than collectivistic countries. These findings bear important implications for both theory and practice.

Keywords: sustainable HRM practices, organizational identification, job satisfaction, individualism-collectivism.

Paper type: Research paper

Introduction

In recent years there has been a growing body of research on sustainable human resource management (HRM) (e.g., Järlström, Saru, & Vanhala, 2018; Guerci *et al*., 2019; Aust, Matthews & Muller-Camen, 2020; Stahl *et al.*, 2020; Cooke, Dickmann & Parry, 2022; Ren *et al*., 2023; Kramar, 2022; Podgorodnichenko, Edgar & McAndrew, 2020; Podgorodnichenko *et al*., 2022). This can be explained by the fact that the sustainable aspects of human resource management are becoming increasingly important for organizations due to increased global awareness of sustainability (Lu *et al.*, 2022). Sustainable HRM also plays a key role in developing a sustainable work environment and actions that help achieve the United Nation's sustainable development goals (SDGs, Chams & García-Blandón, 2019; Kram, 2022). This emphasizes the role of HRM as a leader of change in transforming organizations towards sustainable development (Ren *et al*., 2023).

HRM practices can be perceived as sustainable when they contribute to employee social wellbeing, environmental protection and long-term economic prosperity (Ehnert, 2009; Kramar, 2014; Aust, Matthews & Muller-Camen, 2020; Stahl *et al*., 2020; Genari & Macke, 2022). Sustainable HRM represents a concern with achieving both internal (e.g., employee social wellbeing) and external (e.g., environmental protection) outcomes (Ehnert, 2009). In this regard, sustainable HRM are beyond financial outcomes and identifies the effects of HRM on a variety of stakeholders such as customers and society (Kramar, 2014) via considering both short term and the long-term perspective (Ehnert *et al*., 2016). Its role is expressed in helping organizations in proactive attempts to address environmental issues and/or wider corporate social responsibility while respecting economic issues (Ren *et al*., 2023). Internally, sustainable HRM is gaining importance in organizations due to its role in supporting recruitment and retention (Podgorodnichenko *et al*., 2022). These management practices are important in the post-pandemic turbulent work environment, especially in the context of the Great Resignation (Klotz, 2022), which illustrates the identity crisis in organizations. Thus, sustainable HRM reflects a human-centred approach to HRM (Cooke, Dickmann & Parry, 2022) and is a crucial factor in strengthening positive attitudes toward work, including job satisfaction (Lu *et al.*, 2023).

In the present research, we aim to examine the relationship between sustainable HRM and job satisfaction. We decided on focus job satisfaction because it translates into many desirable attitudes (Bowling, Eschleman & Wang, 2010) and performance (Judge *et al.*, 2001). Research to date indeed provides empirical support for the positive relationship of

sustainable HRM with job satisfaction (Valentine & Fleischman, 2008; Ahmad & Umrani, 2019; Lu *et al*., 2023; Parida, *et al*., 2021; Shafaei, Nejati & Mohd Yusoff, 2020). Nevertheless, studies that examine the relationship between HRM (Andreassi *et al.*, 2014), working conditions and job satisfaction show that this relationship may be universal (Hauff, Richter & Tressin, 2015) or culturally sensitive (Andreassi *et al.*, 2014; Gu *et al.*, 2022).

To better understand the relationship between sustainable HRM and job satisfaction, we sought to identify the circumstances under which sustainable HRM is linked to job satisfaction. Specifically, building on Social Identity Theory (SIT) (Tajfel & Turner, 1986), we propose one individual-level moderator, that is, employees' identification with the organization, and one country-level cultural moderator, that is, individualism-collectivism. In accordance with SIT, organizational identification forms a level to which individuals define themselves regarding to organizational membership (Tajfel & Turner 1986), which can shape behavior and attitudes in the workplace. We predict that organizational identification (OI) will moderate the relationship between sustainable HRM and job satisfaction. Motivational forces derived from the social identity the organization provides would encourage highly identified employees to act in group-beneficial ways (van Dick *et al.*, 2004) and thus lead to positive employee outcomes (Ricketta, 2005; Riketta & Van Dick, 2005; Lee, Park & Koo, 2015). Additionally, cultural aspects related to specific values determine which and how HR policies and HRM practices are implemented in companies. HRM system is anchored in the culture of a given organization, and at the same time, in the national culture of a given country. Therefore, an important contextual factor for sustainable HRM research is not only the organization, but a country's national culture (Gerhart & Fang, 2005). Because other context-related factors influence the adoption of sustainable HRM in different geographical regions, it is necessary to consider the significance of the lack of knowledge connected to these contexts because of the geographical imbalance in sustainable HRM research (Anlesinya & Susomrith, 2020). Therefore, apart from the main link between sustainable HRM and job satisfaction moderated by organizational identification, we also conceptualized and tested the moderation effect of the cultural dimension of individualism-collectivism (Hofstede, 2001). A country's position on the scale of this dimension indicates how a given society finds a solution to a universal dilemma: how strong a person's connection to the group that is the source of his or her identification should be. For example, individualistic societies tend to promote independence and collectivist societies interdependence (Hofstede, 2001). So, we assume that patterns of relationship in collectivist culture translate into organizational behaviors in the

workplace and influence stronger identification with organization, which in turn affects the effect of sustainable HRM on job satisfaction.

Our research makes three significant contributions to the existing knowledge in the sustainable HRM field. Firstly, we shed light on the complexity of the relationship between sustainable HRM and job satisfaction by considering the influence of organizational identification at the individual level. By incorporating the moderating role of organizational identification in our model, we provide insights into both main and interaction effects, offering new perspectives on the direct versus indirect relationship between HRM practices and job satisfaction. Secondly, our study considers the cultural context when examining the relationship between sustainable HRM and job satisfaction. This contributes to our understanding of the importance of organizational identification in the impact of sustainable HRM, highlighting differences across countries based on their level of individualism. Consequently, our research addresses a gap in the literature by systematically investigating when and how national culture moderates the sustainable effects of HRM on job satisfaction. In response to the call by Gelfang *et al.* (2017) for research to move beyond the question of whether culture matters, our study provides insights into how cultural context influences the relationship between sustainable HRM, organizational identification, and job satisfaction. This represents the first multilevel cross-cultural analysis of its kind, encompassing both organizational and individual variables, and thus enables us to answer important research questions regarding the universal mechanisms versus context-specific modifications of sustainable HRM practices on employee outcomes. Thirdly, our research expands the knowledge base in the field of sustainable HRM by extending our investigation to 54 countries. This comprehensive approach aligns with the call by Anlesinya and Susomrith (2020) for a contextualized approach to sustainable HRM, broadening the scope of sustainable HRM research across five continents. As a result, our study contributes significantly to cross-cultural psychology and international human resource management. Overall, our research offers valuable insights by examining the influence of organizational identification, considering the cultural context, and extending the scope of investigation to a diverse range of countries. These contributions advance the field of sustainable HRM and enhance our understanding of the complex dynamics underlying the relationship between sustainable HRM and job satisfaction.

Theoretical framework and hypothesis development

Sustainable HRM practices and job satisfaction

Sustainable HRM "creates the skills, motivation, values and trust to achieve a triple bottom line and at the same time ensures the long-term health and sustainability of both the organization's internal and external stakeholders, with policies that reflect equity, development and well-being and help support environmentally friendly practices" (Cohen, Taylor & Muller-Camen, 2012, p. 3). However, it is worth highlighting that sustainable HRM literature does not represent a coherent body of literature (Kramar, 2014), and the evolution in approaches to its description translates into new definitions, types (Aust, Matthews & Muller-Camen, 2020) and systematization of conceptualizations (Ren *et al*., 2023). In our article we consider two types of sustainable HRM, indicated by the Aust, Matthews and Muller-Camen (2020): socially responsible HRM and green HRM. Whereby we see sustainable HRM as encompassing green HRM, and these constructs are grouped together and termed sustainable HRM for the purposes of this paper. Moreover, we emphasize the perspective indicating that sustainable HRM implies demonstrating responsibility in the different areas of HRM in a balanced way; that is, adopting a holistic approach to employee management to create organizational and human/social value (Diaz-Carrion, Lopez-Fernandez & Romero-Fernandez, 2021). This involves integrating sustainability principles into HR practices and policies, such as hiring and training programs, employee engagement initiatives, and flexible work arrangements, to improve organizational efficiency, performance, and well-being, while also reducing negative environmental impacts.

Recent research has established that sustainable HRM promotes many employee outcomes including job satisfaction (Lu *et al.*, 2023; Cahyadi *et al.*, 2022). Organizations aiming to attract and retain outstanding employees implement sustainable HRM that focuses on developing the capabilities of employees. Job satisfaction is defined as "a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (Locke, 1969, p. 316). As such, employees' job satisfaction is determined by elements which change as a consequence of events which occur in the workplace environment. These events are, mostly, influenced by job characteristics or job requirements, as well as by the existing system of management practices in the company. Traditionally, job satisfaction has been valued as an important outcome of HRM (Petrescu & Simmons, 2008; Den Hartog *et al*., 2013; Andreassi *et al.*, 2014), with this relationship demonstrated in several meta-analyses (Kooij *et al*., 2010; Jiang *et al*., 2012; Meijernik,

Beijer, & Bos-Nehles, 2021) examining high commitment HR practices (HCHP) (Kooij *et al*., 2010), high performance work practices (HPWP) (Meijernik, Beijer, & Bos-Nehles, 2021), and high performance work systems (HPWS) (Jiang *et al*., 2012). Job satisfaction is also found to be an important mediator in the HRM practice and employee performance relationship (Meijernik, Beijer, & Bos-Nehles, 2021).

HRM enhances job satisfaction whereby selective staffing and intensive training which ensures employee-job fit, information sharing and job autonomy which empowers employees, and performance-based pay which supports the equitable distribution of rewards (Messersmith *et al*., 2011; Wu & Chaturvedi, 2009). Sustainable HRM, by the needs of all stakeholders, supports the pursuit of social as well as economic goals (Diaz-Carrion *et al*., 2020). It is via the adoption of socially responsible values that positive attitudes, including job satisfaction, amongst employees are stimulated (Cahyadi *et al*., 2022; Freire & Pieta, 2022; Tortia *et al*., 2022). Specifically, sustainable recruitment and selection ensure that employees share the sustainability values of the organization (Abdelhamied *et al*., 2023). Training creates job satisfaction by establishing a bond between the employee and the organization and encouraging sustainable employee behavior (Cho & Choi, 2021). Performance appraisal motivates employees to contribute more actively to sustainability goals of the organization (Abdelhamied *et al*., 2023). Fair compensation is seen as an ideal job condition and thus promotes job satisfaction (Cho & Choi, 2021). Benefits that add a collective aspect to individual compensation facilitate cooperation between employees and the management (Cho & Choi, 2021).

Importantly, when organizations are committed to sustainable HRM, employees perceive their work as meaningful because it has a broader scope that goes beyond focusing solely on the economic performance. This increases job satisfaction (Guerci *et al*., 2019). The same is true for green HRM, which, by promoting employees' green actions, enhances their meaningfulness through work. This, in turn, can increase their job satisfaction (Shafaei, Nejati & Mohd Yusoff, 2020). It is also worth noting the broader impact of sustainable HRM, and thus the enhancement of satisfaction also among other stakeholders, which includes, for example, customers (Wikhamn, 2019), or the impact on entire communities in which corporations operate (Aust, Matthews & Muller-Camen, 2020).

In line with previous research that found a link between sustainable HRM and job satisfaction, we propose the following hypothesis:

Hypothesis 1. *Sustainable HRM practices are positively related to job satisfaction.*

The moderating role of organizational identification

While sustainable HRM practices have a largely positive influence on employees' job satisfaction, the degree to which sustainable HRM practices eventually result in positive outcomes may depend upon other factors related to the employee's perception of the organization. This suggestion is not surprising in the context of HRM research. Prior research has shown that the relationship between HRM practices and employee attitudes and behaviors can be moderated by a variety of factors including perceptions of leaders' behavior (Zhang *et al.*, 2020), employee' self-efficacy (Wojtczuk-Turek & Turek, 2021), perceived procedural justice (Najam *et al.*, 2020) and social relations – "wasta" (Alothmany, Jiang & Manoharan, 2022). In other words, while sustainable HRM offers individuals different HRM functions to enhance their job satisfaction, an employee's willingness to respond positively to those practices can depend on other variables. One such variable that we chose to examine as playing an important role is the employee's organization identification (Lee, Park & Koo, 2015; Weisman *et al.*, 2023).

According to SIT, there is an important distinction between being a member of a group and identifying with that group (Tajfel & Turner 1986). Thus, if employees have different levels of identification with the organization, the way they perceive and react to the practices implemented in the organization will be different (Weisman *et al.*, 2023). In general, organizational identification can be defined as "the perception of oneness with or belongingness to an organization" (Mael & Ashforth, 1992, p. 104). Organizational identification constitutes one of the key factors explaining the dynamic willingness of individuals to make sacrifices for the organization (Ashforth & Schinoff, 2016). Referring to SIT (Tajfel & Turner, 1986), within which organizational identification is often framed, it can be concluded that employees with a high level of identification with a group or organization define themselves in terms of that group's characteristics. In doing so, members share the group's prototypical traits (Lee, Park & Koo, 2015), thereby transforming the personal "I" to an organizational "We" (van Knippenberg & Sleebos, 2006). Moreover, this "psychological merging" of self and group suggests that individuals who strongly identify will care more deeply about the group's welfare, evaluate fellow members favorably, and view them as trustworthy given their perceived similarity and common bond (Tajfel & Turner, 1986).

Identification not only results from a sense of belonging to a particular organization or sharing group values and norms but can be stimulated both by leaders or intra-organizational practices (Weisman *et al.*, 2023) through the processes of organizational sensemaking and sensegiving (Ashforth & Schinoff, 2016). Recent research shows that sustainable HRM (Liao,

Cheng & Chen, 2022; Freire & Pieta, 2022; Vu, 2022) can shape employee identification by developing personal goals or helping employees find meaning in their work (Pratt, Pradies & Lepisto, 2013). Previous research, including meta-analyses (Ricketta, 2005; Riketta & Van Dick, 2005; Lee, Park & Koo, 2015) unequivocally shows that individuals with high levels of organizational identification display more positive attitudes toward the organization and behaviors. However, it is important to explain not only how but also when employees with a high vs. low sense of identification respond to sustainable HRM practices.

We suggest that when employees already have high identification with the organization, the role of sustainable HRM practices in enhancing employees' job satisfaction is attenuated. Employees are willing to adjust themselves to fit into the organization when they view themselves as members (Ashforth & Schinoff, 2016). They are also intrinsically motivated to behave in line with the organizational goals and norms and thus have a lower need for guidance and signaling from the sustainable HRM system. When employees are identified with the organization, they have intrinsic motivation coming from their identity and extrinsic motivation coming from the HRM practices is less important for them, so they pay less attention to the practices. Indeed, van Dick *et al.* (2004) contend that the motivational forces derived from the social identity the organization provides should encourage highly identified employees to act in group-beneficial ways. Thus, they do not need additional motivation from the organizational system, to increase their overall job satisfaction. They benefit from "where they are" and "with whom they are" in their professional environment, because social identity is an important determinant of self-esteem (van Dick *et al.*, 2004). Previous research supports this claim. It has been showed that the effect of leadership on employee functioning was stronger when employees had lower levels of identification with the organization (Wang, Demerouti & Le Blanc, 2017). Mostafa *et al.* (2019) also showed that while employees with higher levels of identification showed lower intention to leave and higher levels of citizenship behavior, they responded less positively to high-commitment human resource practices than employees with lower levels of identification. In other words, both leadership and HR practices have a stronger positive effect on those with lower levels of organizational identification. This is because those with lower levels of identification have more trouble finding meaning at work (Pratt, Pradies & Lepisto, 2013) and look for it not so specifically in their cognitive and emotional bond with the organization but in the perceived instrumentally of HR practices.

Based on this, we propose that sustainable HRM practices will have a weaker (vs. stronger) relationship with employees' job satisfaction when they have higher (vs. lower) OI. Thus, we hypothesize that:

Hypothesis 2. *Organizational identification moderates the relationship between sustainable HRM practices and job satisfaction such that the relationship is stronger when organizational identification is low.*

The moderating role of cultural dimension individualism – collectivism

Although many studies explain an overall relationship between sustainable HRM practices and job satisfaction (Abdelhamied *et al.*, 2023; Cahyadi *et al.*, 2022; Cho & Choi, 2021), the role of cultural context in this relationship has been largely ignored. This is problematic given prior research shows that cultural aspects shape the work context and employee perceptions of work (Hofstede, 2001; Taras, Kirkman & Steel, 2010; Chua, Wong & Koestner, 2014; Adamovic, 2022) as well as satisfaction specifically (Souza-Poza & Souza-Poza, 2000; Aycan & Gelfand, 2012; Andreassi *et al.*, 2014; Gu *et al.*, 2022). In relation to the cultural analysis of satisfaction, both the variation of its levels (differing job satisfaction levels) across countries (Sousa-Poza & Sousa-Poza, 2000), and the multinational comparison of job satisfaction determinants and their drivers in countries and regions (Timming 2010; Hauff, Richter & Tressin, 2015; Zhang *et al.*, 2019; Gu *et al.*, 2022) have been examined.

For the aims of our research, the issue is not whether culture is relevant to the relationships under study, but when and how it matters (Gelfang *et al*., 2017). The socio-cultural environment influences internal work culture and HRM practices (Aycan *et al*., 2000), and implementation of sustainable HRM might differ across countries, as stressed by Diaz-Carrion, López-Fernández and Romero-Fernandez (2021). Employees working in different countries may react to sustainable HRM practices in slightly different ways. In the current study, the individualism-collectivism of the country is considered as a potential moderator of the above-mentioned relationship between organizational identification and sustainable HRM. Considering individualism-collectivism at the country level, it is assumed that certain beliefs and values are shared by people living in a given country. Of course, this approach does not exclude intra-cultural variations in individualism-collectivism. Rather, it presumes that nations differ in the average level of this orientation, which is related to the existence of related cultural norms and expectations. Individualism-collectivism is perhaps the most distinguishing cultural characteristic in terms of how various societies analyze and process social behaviors (Hofstede, 2001; Leung *et al.*, 2005; Triandis, 1995) and is most

relevant to OI. Cultural values of individualism and collectivism differ in their relative emphasis on independence versus interdependence with a group (Markus & Kitayama, 1991). In individualistic cultures (more common in North America and Western Europe) individual concerns are placed above those of the group – individuals are primarily expected to take care of themselves and their immediate families. Employees from these cultures value the achievement of personal goals more highly, use individual work methods and prefer working by themselves instead of in groups (Hofstede, 2001).

In contrast, in collectivistic cultures (more common in East Asia), the welfare of a group, its harmony, and cohesion are placed above personal concerns. People who view the self as inherently interdependent with the group to which it belongs tend to adhere more to group norms than do those from individualistic cultures (Hofstede, 1980; Leung *et al*., 2005). In collectivistic countries employees will act according to the interest of the group, which may not always coincide with their individual interests (Hofstede, Hofstede, & Minkov, 2010). Individualism-Collectivism at the country level is associated with various employee attitudes. For example, individualism has positive associations with job satisfaction, but it has negative associations with organization identification and organizational commitment (Taras, Kirkman & Steel, 2010). Research shows that employees in individualistic countries tend to calculate their investment in and return from the relationship with the organization (Fischer *et al.*, 2009). That could account for their positive appraisal of sustainable HRM practices that offer methods to improve organizational financial outcome while simultaneously reducing the negative effects of workload on employees (Macke & Genari, 2019; Mariappanadar, 2020). Therefore, employees in more individualistic countries might perceive sustainable practices in organizations to be congruent with national value systems of personal achievement and efficiency. That is, a higher level of sustainable HRM practices perceptions may result in more positive employee attitudes, such as a stronger job satisfaction in the case of those individuals who live in countries where efficiency in taking care of their own interests is expected. This is confirmed by a cross-cultural study conducted by (Andreassi *et al*., 2014). The authors of that study analyzed the relationship between high-performance HR practices and job satisfaction across 48 countries. They concluded that the ability to balance one's work and personal life was linked more strongly to job satisfaction in individualistic cultures than in collectivistic ones. A study by Hauff, Richter and Tressin (2015) using a multilevel approach found that some job characteristics' impacts vary significantly between countries, while others prove to be independent of national context. In turn, Gu *et al*., (2022) on the basis of an analysis of the moderating role of culture in the relationship between job

characteristics and job satisfaction, found that the higher a country scores on the individualism, the stronger the relationship of job satisfaction with two variables: the perceived interest of job and career advancement opportunities. Of course, having an interesting job is a universal determinant of job satisfaction (Sousa-Poza & Sousa-Poza, 2000; Hauff, Richter & Tressin, 2015), but examining the latter relationship it does not appear surprising, given the high importance attributed to the fulfillment of needs, or more broadly the self-fulfillment of individuals in individualistic cultures (Hofstede, Hofstede, & Minkov, 2010). Therefore, sustainable HRM practices with person-centered orientation can be expected to translate into employee satisfaction in countries with higher scores on individualism.

This assumption, based on previous analyses of national culture in the context of HRM and job characteristics, is supplemented by another element included in our model – organizational identification. In our view, the lack of a strong bond with the organization can trigger transactional forms of relationships. Then, HRM practices offering certain benefits to employees may contribute to positive attitudes towards the organization (Aryee *et al*., 2002; Jia *et el*., 2019) – including satisfaction and reinforcing the intention to remain in the organization, as shown in research (Gould-Williams & Davis, 2005). In addition, the positive effects of HRM in strengthening satisfaction at low levels of identification may in this case also be due to the fact that sustainable HRM considers employees as an important organizational stakeholder and explicitly targets meeting employees' needs and interests (Raubenheimer & Rasmussen, 2014; Richards, 2022). Furthermore, an explanation for the stronger impact of sustainable HRM on individuals with lower levels of identification may be provided by findings indicating the essential impact of context on organizational behavior (Johns, 2018). The power of the context may be evidenced by the fact that context can serve as a main effect or interact with personal variables (Johns, 2018). Therefore, we assume that more susceptible to the effect of context (i.e., in our model, sustainable HRM practices) are those persons who present lower levels of a particular attitude (in this case, OI), and that the stronger effect of context may be expressed in the synergistic effect of the entire operation of a bundle of practices (Huselid, 1995; Laursen, 2002).

To sum up, sustainable HRM practices constitute a strong signal for the employee, indicating that the organization cares about them and provides a place where they can develop. These values are particularly salient where employees come from cultures with a high level of individualism because they have potential to enhance job satisfaction and positively impact OI. This is because such individuals do not possess strong group attachments and are less concerned

about the image of the organization. Instead, those high in individualism place emphasis on personal interests and the attainment of personal goals (Moorman & Blakely, 1995). Consequently, they are thought to be particularly sensitive to personal status and the fulfillment of personal needs (Fuller *et al.*, 2006), and as such, these characteristics are thought to be more central to their job satisfaction. Research by Farooq, Rupp and Farooq (2017) confirms this assertion, demonstrating that cultural individualism moderates the relationship between internal sustainable HRM and OI. This argument informs our third hypothesis:

Hypothesis 3. *The cultural dimension of individualism-collectivism moderates the moderating role of organizational identification in relationship between sustainable HRM and job satisfaction in such a way that the relationship between sustainable HRM and satisfaction is stronger with the higher level of individualism when organizational identification is low.*

Based on the above argumentation, we propose a theoretical model linking sustainable HRM practices with job satisfaction, where such relationship is moderated by the employee's organizational identification and the national cultural difference operationalized by the individualism-collectivism. Figure 1 presents the relationships conceptualized in this study.

--- Please insert Figure 1 about here ---

Method

Sampling and research procedure

The sample consisted of 14,502 working adults from 54 countries: Australia, Belgium, Brazil, Bulgaria, Canada, China, Chile, Colombia, Croatia, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Finland, France, Georgia, Germany, Ghana, Greece, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Lithuania, Malta, Mexico, Netherlands, Nepal, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Serbia, Slovak Republic, South Africa, Spain, Sri Lanka, Suriname, Switzerland, Thailand, Turkey, Ukraine, United Arab Emirates, Uruguay, USA, UK. Data were collected in 2022 as part of a project entitled *Sustainable Human Resource Management Cross-Cultural Empirical Study* by 106 researchers from different research centers located in each country. The different teams collected data using printed questionnaires and cloud-based surveys (e.g., MS Forms, Google,

etc.). Survey participants were recruited from small, medium and large organizations where HR management practices are developed and implemented. In collecting this data, efforts were made to achieve a gender-balanced sample.

In this study, 55% of respondents were female. Among the respondents, 48% worked in large companies (251– 1,000 employees), 28% worked in medium-size firms (51–250 employees) and 24% worked in small-size firms (10–49 employees). Most were university-educated individuals (78%). 34% aged between 25–34, 24% between 25–34 years age group. All respondents worked in full-time and had been in their current position for at least 6 months. Some 34% had 1-5 years tenure, with 19% having 6-10 years tenure and 33% being in their current position for 10 years or more. Around one-third of our sample of respondents held a managerial position.

Measures

The study used questionnaires originally designed and validated in English. Original versions were used in English-speaking countries, while the same adaptation procedure was used in other countries. Following the recommendations of International Test Commission Guidelines for Translating and Adapting Tests (International Test Commission, 2017), English-language versions were translated into national languages and then the back-translation procedure was applied.

All measures used 5-point response scales, with the response options ranging from 1 = strongly disagree/never/not at all to 5 = strongly agree/always/extremely. All scale reliabilities (Cronbach's α values) exceeded 0.7 and were thus deemed to be acceptable.

Sustainable HRM practices was measured with the 15-item tool diagnosing various practices relating to green, sustainable, and socially responsible company activity. Twelve items were drawn from Diaz-Carrion *et al*. (2018) sustainable HRM diagnostic tool and addressed specific practice areas including: staffing, training, performance evaluation and career management, compensation, work-family balance and diversity promotion, occupational health and safety. Sample items included: *We minimize psychological and physical work risks; We report on the performance of the company in economic, social and environmental issues.* Three items were drawn from Dumont, Shen and Deng (2017) and addressed green human resources management practices. A sample item was: *My company provides employees with green training to promote green values.* In the process of checking the properties of the measuring tool, an exploratory and confirmatory factor analysis (CFA) was

carried out, which confirmed a good fit to the data in the one-factor model ($\chi 2$ = 4374.472, *df* = 84; $p < .001$; RMSEA =.059; CFI = .968; TLI = .960; SRMR = .050).

Organizational identification was assessed with the 6-item scale developed by Mael and Ashforth (1992). A sample item was: *When I talk about my company, I usually say "we" rather than "they"*. The performed CFA showed a good fit to the data (χ^2 = 1014.993, *df* = 9;$p < .001$; RMSEA = .088; CFI = .976; TLI = .960; SRMR = .035).

Job satisfaction (JS) was measured with the 3-item tool *Michigan Organisational Assessment Questionnaire – Job Satisfaction Subscale* (Cammann *et al.*, 1983). A sample item was: *All in all I am satisfied with my job*. The performed CFA showed perfect fit to the data (saturated model).

Individualistic-collectivistic culture was assessed using Hofstede's cultural indicators (Hofstede, Hofstede & Minkov, 2010) based on Culture Compass™ tool (https://www.hofstede-insights.com/country-comparison/). The assessment is made using a standardized tool that determines the placement of a cultural dimension on a collectivism-individualism continuum on a scale of 0-100. The more points describe a country, the more individualistic its culture. We decided to use Hofstede's cultural indicators because of the ubiquity of the tool's use in previous cross-cultural studies (Taras *et al.*, 2012) and, most importantly, the availability of data for all countries in the sample. In addition, other studies on cross-cultural comparisons for job satisfaction (Hauff, Richter & Tressin, 2015; Gu *et al.*, 2022) have used the Hofstede's model, allowing us to compare our results with previous studies.

Control variables. Given the multilevel nature of the study, we used controls at both the employee level and the country level. At the country-level, we controlled for economics strength by *Gross National Income* (*GNI*). GNI comprises the total value of goods and services produced in a country, together with its income received from other countries minus payments made to other countries. We took the per capita GNI data in US$ for 2021 for each country from the database of the World Bank (https://data.worldbank.org/indicator/NY.GNP.PCAP.CD). Previous studies has found that GNI are highly correlated with the cultural individualism (e.g., Hofstede, 2001), and related to employee outcomes (Fisher & Mansel, 2009). Moreover, Peretz and Rosenblatt (2011) suggested that economic strength may impact countries' propensity to invest in HRM practices and influence on general job satisfaction.

At the employee level, we controlled for: years of education, age, and seniority. The selection of these control variables was guided by previous studies (e.g., Riketta, 2005).

Analytical strategy

The first step of the analysis process focused on the aggregation of the data to the country level to allow testing for multilevel moderation analysis, that is, the moderating role of country-level individualism/collectivism in sustainable HRM x organizational identification – job satisfaction relationship.

Then, we carried out Confirmatory Factor Analysis (CFA) using AMOS software (version 28) to estimate the fit indexes for each focal construct and evaluate the measurement model ($\chi 2$ –chi-square test, RMSEA – Root Mean Square Error of Approximation, CFI – Comparative FitIndex, TLI – Tucker Lewis Index, SRMR – Standardized Root Mean Square Residual) (Kline, 2016). The following criteria for adequate model fit were adopted: CFI and TLI > .95 and SRMR and RMSEA < .08 (Kline, 2016). Maximum likelihood estimation methods were used and the input for each analysis was the covariance matrix of the items or the scale-scores.

Next, following the recommendations made by Aguinis *et al.* (2013), we built the model which consisted of six steps of analyses, that is, the null model (Step 1), a random intercept and fixed slope model (Step 2 and 3), a random intercept and slope model (Step 4), and a cross-level interaction model (Step 5 and 6).

We used cluster-mean centering recommended in multilevel interaction analyses (Enders & Tofighi, 2007; Hamaker & Grasman, 2015; McNeish & Kelley, 2018; Antonakis, Bastardoz & Rönkkö, 2021). This centering method, in contrast to grand mean centering, yields the most accurate estimates of within-group slopes and minimizes the possibility of finding spurious cross-level interaction effects. We utilized SPSS version 28 to carry out the descriptive statistics and inter-correlations. We used AMOS version 28 toestimate the CFA for each construct and we used Jamovi version 2.3 to test our hypotheses, that is, the proposed sustainable HRM-job satisfaction relationship and the multilevel moderation model with individual-level organizational identification and country-level individualism/collectivism as moderators of the sustainable HRM-job satisfaction relationship.

Results

Measurement models

The measurement model was assessed through CFA, which comprised three latent variables. The values of fit indices (Table 1) showed that the baseline three-factor model showed the best fit to the data.

--- Please insert Table 1 about here ---

Descriptive statistics

A total of 54 samples from different countries were included in this study (detailed characteristics of the sample are provided in Appendix 1).

The results from the inter-correlations and descriptive statistics are presented in Table 2. The results showed that job satisfaction was positively and significantly related to both sustainable HRM practices (r = .425, p < .01) and organizational identification (r = .485, p < .01). In contrast, a negative relationship was observed between job satisfaction and Gross National Income (r = -.032, p < .01) and there was a lack of a correlation with the individualistic-collectivistic culture dimension (r = -.013, p = .112). Interestingly, the relationships were observed among the control variables. GNI was strongly and positively associated with high levels of cultural individualism (r = .772, p < .01), and negatively associated with sustainable HRM (r = -.198, p < .01).

--- Please insert Table 2 about here ---

Hypotheses testing

Due to the nested nature of the data, it is possible that both the intercept and slope vary across countries. Specifically, it is likely that country differ in average employee job satisfaction and perception of sustainable HRM practices levels may relate differently to job satisfaction across countries.

In Step 1 of our analysis, we computed the intraclass correlation (ICC), which quantifies the proportion of the total variation in employee job satisfaction accounted for by country characteristic. A value near zero (ICC ranges from 0 to 1) suggests that a model including Level 1 (L1) variables only is appropriate, and, hence, there may be no need to use multilevel modeling. Instead, a simpler OLS regression approach may be more parsimonious. Peugh (2010) concluded that ICC values in multilevel analysis typically range from .05 to .20. So even a small ICC suggests that there may be a Level 2 (L2) variable (country differences) that explains heterogeneity of job satisfaction scores across countries.

Results included in Table 3 indicate that ICC = .055 (step 1), which means that differences across countries account for about 5.5% of the variability in individuals' job satisfaction levels. As shown in Table 4, the across-countries variance in job satisfaction is τ_{00} = .047 and the within-team variance is .805. In short, the results provide evidence of a nested data structure that allows for a multi-level analytical approach. Among the control variables, only age was significantly associated with job satisfaction (β = .025; p < .01).

--- Please insert Table 3 about here ---

Next, in Step 2 of our analysis, we assessed the possible presence of a cross-level direct effect of national culture dimension on job satisfaction, controlling for both individual-level sustainable HRM practices and organizational identification. It allowed explains intercept (L2) variance identified in the first step of the model building process. Obtained results indicate that the predicted slope regressing sustainable HRM practices on job satisfaction is γ_{10} = .324; p < .01, and organizational identification on job satisfaction is γ_{20} = .386; p < .01. Moreover, results showed that after controlling for GNI (at L2), the individualistic-collectivistic culture dimension did not explain variance in countries' average job satisfaction. However, in the absence of controlling for the GNI variable at the L2 level, the relationship of the individualism-collectivism culture dimension with job satisfaction was statistically significant (γ_{01} = 0.003; p < .05) which suggests that in countries with higher levels of individualism, employees have higher levels of satisfaction. However, this conclusion would be misleading as it ignores the role of countries' economics strength which can explain differences in job satisfaction between countries.

In general, our results provide evidence in support of a direct single-level effect of sustainable HRM practices and organizational identification on employee job satisfaction. Thus, Hypothesis 1was supported.

In Step 3 of our analysis, while controlling for the same parameters, we also included the SHRM x organizational identification interaction term to explain variance in employee job satisfaction as per Hypothesis 2. Table 3 shows that the slope regressing sustainable HRM practices on job satisfaction was γ_{10} = .324; p < .01, and the interaction sustainable HRM x organizational identification on job satisfaction is γ_{30} = -.060; p < .01. The results indicate that

for those employees with lower levels of organizational identification, sustainable HRM practices led to greater gains in overall job satisfaction.

Following Aiken and West's (1991) procedure, we computed the regression slopes when scores on organizational identification (moderator) were one standard deviation (SD) above and below the mean. The positive relationship between sustainable HRM practices and job satisfaction was weaker for individuals with higher levels of organizational identification (+1 SD: $\beta = .269$, $p < .01$) than employees with lower levels of organizational identification (-1 SD: $\beta = .379$, $p < .01$). Thus, Hypothesis 2 was supported. Figure 2 show a graphical representation of the two-way interaction between the tested variables.

--- Please insert Figure 2 about here ---

In Step 4 of our analysis, we assessed the relationship between sustainable HRM and job satisfaction across countries. For this purpose, we used −2 log likelihood ratio model with a random slope component and model without a random slope component (Bliese, 2002). In general, a log-likelihood value quantifies the probability that the model being estimated produced the sample data (Peugh, 2010). Obtained result showed that the variance in slopes across groups was $\tau_{11} = .008$. Also, results shown in Table 3 indicated that, based on FIML, the model in Step 4 fitted the data better than model in Step 3, also suggesting a nonzero τ_{11} (deviance of 16126.950 − 16093.119 = 33.8; $p < .001$). In general, results provided evidence insupport of country level differences in the nature of the relationship between sustainable HRM practicesand employee job satisfaction which suggest the need to understand what may be the variablethat explain such variability.

In Step 5 of our analysis, we tested the cross-level interaction effect – that is, sustainable HRM practices x individualistic-collectivistic culture dimension. The slope of sustainable HRM practices on job satisfaction is expected to equal $\gamma_{10} = .327$; $p < .01$, and interaction sustainable HRM x organizational identification on job satisfaction is $\gamma_{30} = -.062$; $p < .01$ for countries with an average individualistic-collectivistic culture. Table 4 also includes deviance statistics comparing the model at Step 5 compared to the model at Step 4 (deviance of 16093.119 − 16092.798 = 0.321; $p = .423$), which suggests that the model at Step 5 did not have a better fit to the data.

Finally, in Step 6 our analysis, we tested the cross-level three-way interaction effect

between sustainable HRM practices x organizational identification x individualistic-collectivistic culturedimension. As per Hypothesis 3, we stated that, in the presence of sustainable HRM practices, individuals with lower levels of identification with the organization (one standard deviation below the mean) will have higher levels of job satisfaction in individualistic compared to collectivistic cultures. Deviance statistics comparing the model at Step 6 compared to the model at Step 5 (deviance of 16092.798 − 16087.499 = 5.3; $p < .01$), suggests that the model at Step 6 showed a better fit to the data. Results showed that relationship of sustainable HRM practices x organizational identification with job satisfaction became stronger, by $\gamma_{12} = .002$; $p < .01$ units, as countries' culture increased by one unit in individualism. In other words, the results showed that sustainable HRM x organizational identification increased the level of job satisfaction more strongly in the individualistic (+1SD: $\beta = .390$; $p < .01$) than in collectivistic cultures (-1SD: $\beta = .366$; $p < .01$). Therefore, Hypothesis 3 was supported.

Discussion

Shifting the focus from HRM's role in promoting organizational sustainability to sustainable human resource development (Ren *et al*., 2023) emphasizes non-economic goals and an employee-centered approach. This study thus focuses on relationship between sustainable HRM practices and job satisfaction with consideration of the cultural context. Thus, our research is part of the discussion on international HRM and implement sustainable HRM in a variety of countries, industries, for a variety of stakeholders, which will be crucial in building sustainable societies through human-centred HRM (Cooke, Dickman & Parry, 2022). In our research, we focus on sustainable HRM practices because of its strong employee orientation and concern for employee well-being. Enhancing the job satisfaction of employees through sustainable HRM is important for organizations, as job satisfaction translates into many desirable attitudes (Bowling, Eschleman & Wang, 2010), behaviors and performance (Judge *et al.*, 2001). Therefore, strengthening employee job satisfaction is a crucial priority of management activities and forms a condition for building stable human capital in any organization. Among organizational impacts aimed at strengthening satisfaction are HRM practices (Steijn, 2004; Hauret, 2022).

The research and analysis presented in this article allowed us to formulate an answer to an important question asked by researchers (Gelfang *et al.*, 2017), whether the sustainable HRM, organizational identification and job satisfaction relationship describes a general mechanism

independent of cultural context, or whether cultural context modifies how sustainable HRM practices affect employees. Thereby our research makes an important contribution to the existing knowledge in the area under discussion.

Theoretical implications

Our study confirms the relationship between sustainable HRM practices and job satisfaction. This is consistent with previous research (Valentine & Fleischman, 2008; Ahmad & Umrani, 2019; Lu *et al*., 2023; Parida *et al*., 2021; Shafaei, Nejati & Mohd Yusoff, 2020). Thus, we prove that the sustainable HRM activities, e.g., staffing, training, performance evaluation and career management, compensation, work-life balance and diversity promotion, and occupational health and safety, as well as pro-environmental measures undertaken by companies are important for employee job satisfaction. Thus, it can be concluded that sustainable HRM practices directly translate into employee satisfaction in the countries under study.

Moreover, the study highlights the complex contingencies that influence the relationship between sustainable HRM and job satisfaction. We predicted that the influence of sustainable HRM on outcomes is dependent on the identification and identity of the employees. Therefore, we additionally evaluated the sustainable HRM and organizational identification interaction for explaining employee job satisfaction. Our research goes beyond the typical vision of organizational identification as a mediator of the relationship between HR practices and satisfaction. Our research shows that while sustainable HRM practices have a positive influence on employees' job satisfaction, the degree to which sustainable HRM practices result in positive outcomes depends upon employees' organizational identification. On the basis of our analysis, we found two important effects. Firstly, our research shows that the relationship between sustainable HRM practices and job satisfaction was weaker for higher-identifying employees than employees with lower organizational identification. In other words, employees with lower level of organizational identification respond more strongly to the sustainable HRM practices than employees with high identification with their organization. When employees are identified with the organisation they have intrinsic motivation coming from their identity and extrinsic motivation coming from the HRM practices is less important for them, so they pay less attention to the practices. Moreover, we look for explanations for this interesting effect in contextual factors. At a general level, such a factor is national culture. We find that the effect of sustainable HRM on job satisfaction with the moderating power of identification is universal (context-independent), the strength of the

effect depends on the cultural factor. In our study, this is the cultural dimension of individualism-collectivism (Hofstede, 2001). We established that employees with lower levels of identification who come from countries with high levels of individualism respond more strongly to sustainable HRM practices. We explain this effect by the fact that employees from cultures that are high in individualism value the achievement of personal goals and interests more highly (Hofstede, 2001). This determines cultural patterns of the relationship with the organization in a more transactional direction. Employees who identify less with the organization expect an adequate 'exchange', and their job satisfaction and positive attitudes towards the organization may be the result of their expectations being met. The results obtained confirm the findings from other studies stating that, depending on the perception of HR practices, employees may react to them differently (Hauret *et al*., 2020). In our study, organizational identification has a contextually sensitive impact that can change over time, and the strength of the context can be an effect of the bundle of sustainable HRM impacts, as has been shown in research on the relationship between HRM and satisfaction (Hauret *et al.*, 2020).

Secondly, an analysis of the sustainable HRM and job satisfaction relationship considering a cross-cultural perspective fills an important gap in understanding the boundary conditions of sustainable HRM and satisfaction relationships in organizations and allows us to explain the variability of satisfaction in the countries differing due to individualism vs. collectivism. Individualism make organizational identification a stronger condition in the sustainable HRM–job satisfaction relationship. Arguably, this is because OI is a rarer feature of individualistic cultures, and so when it is present it has more potential to strengthen the effects of OI on the sustainable HRM–job satisfaction relationship. In collectivist cultures, OI is a given, therefore its effects are not so salient.

Previous research has reported two different perspectives – 1) stating that HRM practices and job satisfaction are similar across countries despite socio-economic, institutional and cultural differences and seem to be context-independent (e.g., Huang & van de Vliert, 2003; Sousa-Poza & Sousa-Poza, 2000; Timming, 2010; Hauff, Richter & Tressin, 2015), and 2) stating that national culture differentiates the level of job satisfaction (Gu *et al*., 2022). The results of our study support the findings of the latter studies indicating that in individualistic countries having an exciting job contributes more strongly to satisfaction than in the collectivistic ones (Gu *et al*., 2022) and also ability to balance one's work and personal life (Andreassi *et al*., 2014). However, this is only if we include the culturally sensitive factor of organizational identification in the study (Lee, Park & Koo, 2015). Previous research was

omitting this dimension and, therefore, has not been able to conclusively answer the question of whether sustainable HRM and job satisfaction relationship describes a general mechanism independent of cultural context, or whether it is culturally dependent. Thus, it appears to us that there are culturally sensitive elements in the 'black box' model (HRM as input and job satisfaction as output), such as patterns of social relations, ways of distributing resources, etc., which should be taken into account in cross-cultural research on HRM practices.

The analysis of such factors should be the subject of further in-depth analyses, especially in the face of inconsistencies in the research described by Judge *et al*. (2002, p. 38) reporting differences in effects at the country level: „…studies comparing countries or sample of workers across countries found individualism to have a positive link with satisfaction, while studies within a country found collectivism to have a positive relationship with job satisfaction. …We think that within the Asian warm collectivistic countries collectivism is positively linked to job satisfaction, but at the between country level (including both individualistic and collectivistic countries, cold and warm, respectively) the individualistic-job satisfaction positive link holds".

Although our study provides a deeper understanding of and new insights into the variability of effects at the level of cultural factors, it is important to recognize that the study of national cultural values is not sufficient, as people are influenced by different cultures and their identification with each culture (e.g., workgroup culture, organizational culture, national culture and regional culture) (Andreassi *et al*., 2014). Moreover, corporate practices and culture can reduce the influence of national cultures. On the other hand, institutional aspects embedded in a country's culture can determine the implementation of sustainable HRM. It might differ across countries, as stressed Diaz-Carrion, López-Fernández and Romero-Fernandez (2021).

Practical implications

Based on the findings of this research, it is possible to formulate several practical implications for managers and employers, especially from multinational companies. Added to that, the results show that sustainable HRM and organizational identification increase the level of job satisfaction more strongly in the individualist than in collectivist cultures. This does not mean, of course, that sustainable HRM activities should only be targeted at employees from countries with high levels of individualism, as our study showed that the impact is universal, independent of context. What is different, however, is the adaptation of certain practices to a specific socio-cultural environment, as discussed by Aycan *et al*. (2000)

and the differentiation of practices due to individualism-collectivism (Konsky *et al*., 2000). Managers, therefore, must adjust their activities to individuals, taking into account the diversity of their cultural value preferences, which determine patterns of functioning and response in the workplace. This is a major challenge given the growing demands of a globalized business environment (Aycan *et al*., 2000).

An important conclusion from our research is that sustainable HRM is a strong universal tool that can be used in the process of strengthening employee satisfaction in companies. Importantly, sustainable HRM activities are stronger with higher levels of organizational identification. This leads to the conclusion that the sense of connection that an employee has with the organization can serve as an important factor that translates into many desirable attitudes and behaviors at work. Therefore, our study allows us to formulate two important implications for employee management. First, sustainable HRM can effectively increase satisfaction even in employees who do not have a strong bond with the organization. What seems important in this case is a bundle of HRM practices whose synergistic effect increases the range of activities addressed to the employee – training, promotion, compensation, work-life balance, diversity promotion, occupational health, and safety. On the other hand, research shows the important role in strengthening organizational identification of organizational context: HRM practices (Weisman *et al*., 2023) and leadership (Mayfield, Mayfield & Walker, 2021). Strengthening identification will later translate into other positive outcomes, including job performance (Vu, 2022). Considering the social aspect of creating the organizational identification, it is also worth utilizing social relations. In this case, cultural aspects, as expressed in social and identity values, as well as the specific corporate culture that influences relationship patterns and cultivating strong bonds and relationships with other employees, may be crucial. It is worth mentioning that a high level of identification with the organization may in some situations substitute for the need for action on the part of HR managers, as those employees who have a strong bond with the organization and care about its image and reputation may not need HRM practices to feel job satisfaction. This may be especially relevant for employees coming from individualist cultures, for whom the gratification of identification may, as it were, replace the impact of sustainable HRM. However, from our findings, we know that the power of sustainable HRM is based on the bond with the organization, and organizational identification is an example of a context-sensitive variable, including national culture.

On reflection, organizational identification and its role in strengthening the relationship between sustainable HRM and satisfaction leads to inspiration regarding future research that

may set new tasks for managers and HR professionals. Namely, to examine to what extent the cultural context expressed in other dimensions besides individualism-collectivism may be relevant to the interaction with sustainable HRM. In addition, it is also worthwhile analyzing other contextual factors of an organizational nature, which may be a source of variability in the area of the relationship between satisfaction and sustainable HRM.

Limitations and future research

This study has several limitations, despite the intriguing findings. Firstly, due to the inclusion of samples from 54 countries in the analyses and the need to provide comparative data collection methods a cross-sectional design was used in this study, which ultimately avoids any inference regarding potentially existing causal mechanisms from the data. Although a longitudinal design or experimental research are desirable for an empirical analysis of employee outcomes, the presented predictions are grounded in theory, thus offering a useful comparison with the existing evidence.

A second limitation is that this research was based at level one only on employee opinions, therefore, we did not study existing HRM practices in organizations but employees' perceptions of them (Van Beurden, Van De Voorde & Van Veldhoven, 2021) in simultaneous comparison with assessed job satisfaction making the results vulnerable to single source bias (Podsakoff *et al.*, 2003). Due to the single source of data at level one, we dropped testing the mediation model (identification with the organization as a mediator between sustainable HRM and job satisfaction) and replaced it with a moderation analysis. This is because, as Aiken, West and Reno (1991) point out, single source variance is unlikely to affect the interaction effect, which potentially reduces concern of the single source bias (Podsakoff *et al.*, 2003). Third, the samples from each country were not equivalent. From some countries, the samples were relatively large (e.g., Italy – 891 people), while from others (e.g., Estonia and the Netherlands) the sample size was less than 100 people. However, the inclusion of 54 samples in the study helped offset potential artifacts resulting from non-equivalent populations. Fourth, a limitation of our research was the use of only one dimension of culture (individualism-collectivism). Even though this dimension is one of most highly stable across cultural groups (Fontaine *et al.*, 2008) and most strongly explains organizational identification (Lee, Park & Koo, 2015) it does limit a broader view of the cultural context. Using other dimensions of culture has not provided a major increase in knowledge so far (Hauff, Richter & Tressin, 2015; Gu *et al.*, 2020), but with a more extended research model, it would be interesting to see if other dimensions of culture explain the variance for job satisfaction. With

the applied concept of cultural inquiry captured in the Hofstede approach, questions arise about the validity and reliability of this framework (Taras, Steel & Kirkman, 2012). Therefore, to ensure the validity of our inference, we applied additional robustness analyses using the GLOBE model (House *et al.*, 2004), which confirmed our previous results.

Finally, the methodological issue relates to the source of data for the individualism-collectivism dimension of culture. Our data analysis combines country results (level 2) from the Hofstede project (Culture Compass™) and also individual responses (level 1) on sustainable HRM, identification with the organization and job satisfaction. This raises the question of the validity of these data, since the country-specific measurements of cultural values do not come from the same group of individual respondents answering questions on the independent variable, moderator and dependent variable. Moreover, Hofstede's framework examines culture at the country level, using it as a proxy for "work" culture which, however, is not equivalent to each other. There are some critics who question the practice of treating each country as a single case. Such aggregation ignores important differences at the levels of individuals and subcultures defined by ethnicity and organization (McSweeney, 2002; Steel & Taras, 2010). Fischer and colleagues, (2005) state in this context that the relationship between national culture and outcomes can only be statistically confirmed if cultural values are part of the questionnaire, rather than coming from an external data source. It would then be possible to capture individual cultural beliefs or values in a country's aggregate population and relate them to the measurement of job satisfaction. Subsequent studies should also include an additional level of analysis, taking into account other organization-specific contextual elements, such as leadership, organizational culture, and organizational climate.

Conclusion

Sustainable HRM and its implications for individuals, groups, organizations, in both single countries and the world is one of the key areas of interest in today's HRM discourse (Cooke, Dickman & Parry, 2022). The study is an important voice in the discussion regarding international research in sustainable HRM. Our research highlights the role of organizational identification as an important condition of the relationship between sustainable HRM and job satisfaction. Research shows that the role of organizational identification as a condition is weakened in the collectivist countries and strengthened in individualist countries. Thereby our analysis fills a gap in terms of contextual factors that influence the adoption and success of sustainable HRM in different geographical areas (Anlesinya & Susomrith, 2020).

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Figure 1. Conceptual model and hypotheses

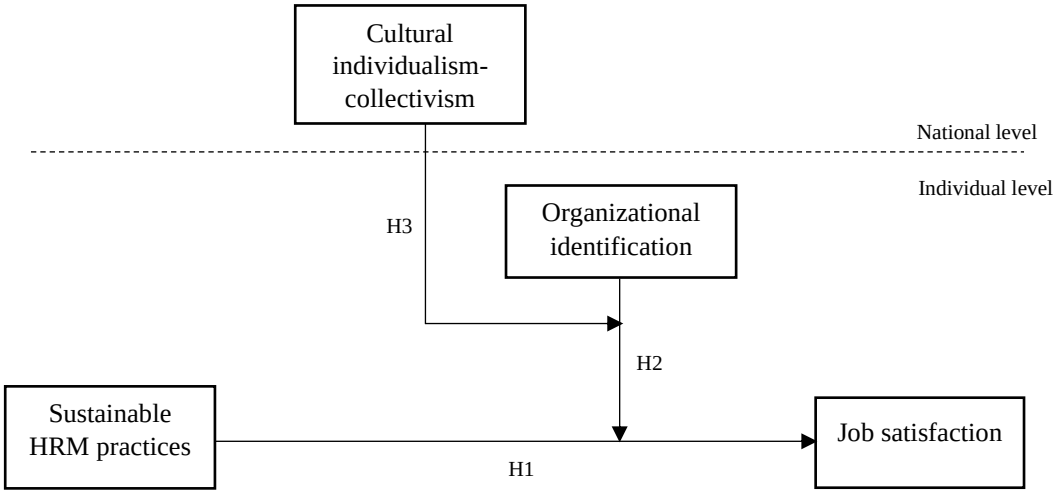
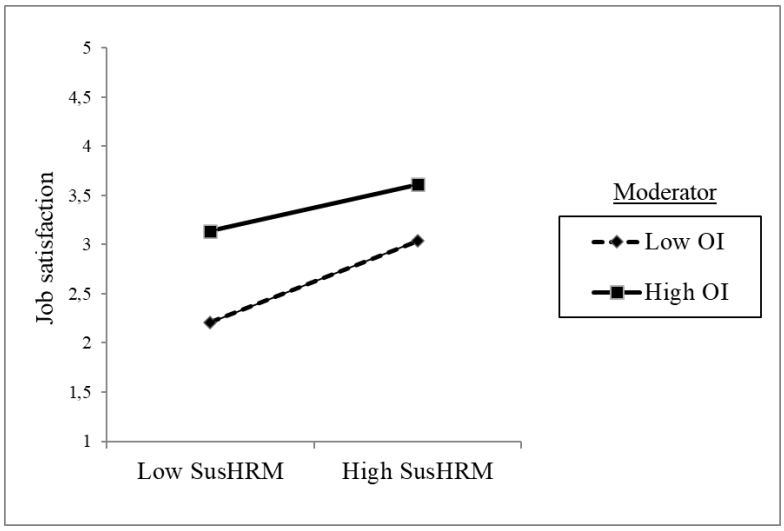


Figure 2. Two-way interaction of organizational identification between sustainable HRM and job satisfaction



Notes: SusHRM – *Sustainable Human Resources Management Practices*; OI – *Organizational Identification*.

Table 1. Comparison of Measurement Model

Model	**Structure**	χ^2/df	**CFI**	**TLI**	**SRMR**	**RMSEA**
Baseline model	Three-factor	33.849	.960	.954	.055	.048
Model 1	Two-factor (SusHRM, OI+JS)	147.037	.819	.798	.104	.100
Model 2	One-factor	254.317	.685	.650	.143	.132

Notes: SusHRM – *Sustainable Human Resources Management Practices*; OI – *Organizational Identification*; JS – *Job Satisfaction;* + variables combined.

Table 2. Descriptive statistics and inter-correlation

	M	SD	1	2	3	4	5	6	7
1. Sustainable HRM practices	3.05	0.916	(.93)						
2. Job satisfaction	3.88	0.926	.425**	(.87)					
3. Organizational identification	3.49	0.894	.473**	.485**	(.88)				
4. Individualism-collectivism	49.25	23.535	-.188**	-.013	-.205**	1			
5. Education	2.74	0.508	.045**	.034**	.066**	-.191**	1		
6. Age	2.68	1.211	-.100**	.057**	.099**	.018*	-.004	1	
7. Seniority	2.71	1.075	-.063**	.061**	.119**	-.078**	.044**	.602**	
8. Gross National Income (GNI)	26220	22352	-.198**	-.036**	-.237**	.772**	-.155**	.001	-.089**

Note: In brackets, reliability Cronbach's α; N=14502; *$p < .05$. **$p < .01$.

Table 3. Results of multilevel modeling analysis on job satisfaction

	Model					
Level and Variable	Null (Step 1)	Random Intercept and Fixed Slope (Step 2)	Random Intercept and Fixed Slope (Step 3)	Random Intercept and Random Slope (Step 4)	Cross-Level Interaction (Step 5)	Cross-Level Interaction (Step 6)
Level 1						
Intercept (γ_{00})	3.901** (0.031)	3.890** (0.023)	3.906** (0.025)	3.907** (0.028)	3.907** (0.027)	3.907** (0.025)
Age		0.025** (0.006)	0.027** (0.007)	0.026** (0.007)	0.025** (0.009)	0.026** (0.007)
Education		0.011 (0.014)	0.011 (0.014)	0.011 (0.014)	0.011 (0.014)	0.011 (0.014)
Seniority		0.011 (0.08)	0.012 (0.08)	0.011 (0.08)	0.012 (0.008)	0.011 (0.008)
SusHRM (γ_{10})		0.324** (0.008)	0.324** (0.008)	0.327** (0.015)	0.327** (0.015)	0.323** (0.015)
OI (γ_{20})		0.386** (0.008)	0.375** (0.008)	0.372** (0.009)	0.373** (0.008)	0.373** (0.09)
SusHRM x OI (γ_{30})			-0.060** (0.008)	-0.062** (0.08)	-0.062** (0.08)	-0.062** (0.08)
Level 2						
Gross national income (GNI)		0.001 (0.001)	0.001 (0.001)	0.002 (0.002)	0.001 (0.001)	0.001 (0.001)
Individualistic-collectivistic culture (γ_{01})		0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)	0.002 (0.002)
Two way cross-level interaction						
SusHRM x Individualistic culture (γ_{11})					0.002 (0.002)	0.002 (0.002)
Three way cross-level interaction						
SusHRM x OI x Individualistic culture (γ_{12})						0.002** (0.001)
Variance components						
Within-culture (L1) variance (σ^2)	0.805	0.556	0.553	0.548	0.548	0.547
Intercept (L2) variance (τ_{00})	0.047	0.030	0.030	0.030	0.030	0.030
Slope (L2) variance (τ_{11})				0.008	0.008	0.008
Intercept-slope (L2) correlation				-0.169	-0.170	-0.168
Additional information						
ICC	0.055					
–2 log likelihood (FIML)	19082.83	16155.690	16126.950	16093.119	16092.922	16087.499
Pseudo R^2	0	0.31	0.31	0.31	0.31	0.31

Notes: SusHRM – *Sustainable Human Resources Management Practices*; OI – *Organizational Identification*; FIML = full information maximum likelihood estimation; L1 = Level 1; L2 = Level 2. L1 sample size = 14502 and L2 sample size = 54. Values in parentheses are standard errors; *t*-statistics were computed as the ratio of each regression coefficient divided by its standard error; *p < .05. **p < .01.

Appendix 1: Descriptive statistics of the 54 samples included in the analysis

Table 1. Descriptive statistics of the 54 samples included in the analysis

	Sample size	**Gender**	**SusHRM**	**OI**	**JS**	**IND**
	N	% Female	M(SD); α	M(SD); α	M(SD); α	M
Australia	228	49	2.75(.85); .93	3.06(.99); .90	3.68(.95); .90	90
Belgium	203	58	2.67(.78); .90	3.21(.85); .85	3.80(.87); .90	75
Brazil	213	52	3.05(1.01); .95	3.76(1); .87	4.26(.97); .90	38
Bulgaria	203	46	3.39(.98); .96	3.78(.87); .91	3.80(.85); .77	30
Canada	453	48	3.13(.82); .92	3.34(.88); .87	4.00(.85); .86	80
Chile	389	59	2.45(.81); .92	3.24(.90); .89	3.85(.91); .88	23
China	499	49	3.09(.77); .92	3.61(.75); .88	3.59(.83); .84	20
Colombia	207	62	2.85(.90); .93	3.64(.87); .88	4.01(.99); .90	13
Croatia	195	78	2.91(1.05); .96	3.59(.92); .92	4.05(.92); .91	58
Czech Republic	205	62	3.04(.85); .92	3.87(.79); .90	4.27(.74); .84	33
Denmark	200	57	3.23(.41); .85	3.73(.42); .80	4.06(.51); .77	74
Ecuador	200	53	3.74(.88); .95	3.95(.78); .81	4.17(.91); .85	8
Egypt	436	45	3.65(.54); .75	3.91(.87); .89	3.48(1.05); .78	37
Estonia	82	38	3.39(.87); .91	4.05(.74); .84	4.37(.76); .83	60
Finland	255	78	2.91(.76); .91	3.20(.90); .84	4.04(.90); .90	63
France	252	48	2.58(.79); 91	3.16(.85); 86	3.65(.97); 90	71
Georgia	455	58	2.99(.89); .93	3.23(.97); .88	3.75(1.05); .91	41
Germany	450	46	2.99(.72); .88	2.94(.86); .84	3.83(.86); .90	67
Ghana	201	44	3.28(.82); .93	3.87(.69); .82	3.76(.87); .82	15
Greece	200	68	3.24(.86); .94	3.42(.77); .87	3.79(.93); .90	35
India	200	42	4.11(.54); .90	4.07(.62); .83	4.06(.76); .82	48
Indonesia	253	68	3.31(.81); .94	3.71(.53); .72	4.00(.65); .82	14
Iran	199	69	2.91(1); .95	3.67(.71); .85	3.80(.83); .83	41
Ireland	224	58	3.17(.83); .92	3.35(.81); .86	3.88(.86); .87	70
Israel	263	79	2.98(.67); .85	3.26(.88); .88	3.89(.79); .88	54
Italy	891	55	2.59(.79); .91	3.41(.80); .88	4.07(.90); .83	76
Japan	400	50	2.21(.82); .94	2.83(.81); .84	3.16(.96); .88	46
Lithuania	190	86	2.81(.87); .92	3.69(.76); .87	4.22(.75); .89	60
Malta	163	71	2.48(.71); .91	3.40(.93); .90	3.75(1.01); .90	59
Mexico	451	56	3.51(.93); .94	3.79(.90); .85	4.39(.80); .90	30
Nepal	226	34	3.55(.81); .94	4.00(.68); .79	3.83(.89); .81	30
Netherlands	97	58	2.76(.48); .84	3.12(.75); .88	3.91(.76); .87	80
New Zealand	374	55	2.95(.89); .95	3.46(.80); 87	3.87(.92); .91	79
Nigeria	141	53	3.33(.70); .88	3.66(.69); .76	3.79(.87); .79	30
Norway	119	51	2.95(.79); .91	3.45(.71); .82	4.03(.92); .91	69
Pakistan	205	37	4.33(.50); .93	4.30(.39); .73	4.30(.54); .75	14
Peru	200	36	3.05(.89); .94	3.95(.79); .85	4.01(.97); .88	16
Philippines	265	49	3.61(.80); .95	4.03(.63); .83	4.16(.79); .90	32
Poland	283	58	2.94(.85); .91	3.26(.94); .88	3.86(1); .90	60

Portugal	213	64	2.69(.86); .94	3.14(.92); .94	3.61(1.04); .91	27
Serbia	211	69	3.12(.96); .94	3.40(1); .90	4.03(.91); .88	25
Slovak Republic	258	47	2.94(.85); .93	3.32(.90); .87	3.96(.93); .89	52
South Africa	191	70	3.21(1.02); .96	3.75(.81); .88	3.98(.86); .84	65
Spain	205	64	3.06(.82); .92	3.44(.91); .88	3.91(.93); .89	51
Sri Lanka	288	67	3.84(.67); .92	4.04(.64); .83	3.99(.73); .80	35
Suriname	238	55	2.67(.97); .95	3.75(.82); .86	3.93(.90); .87	47
Switzerland	172	58	2.79(.89); .93	3.30(.79); .83	3.83(.92); .90	68
Thailand	241	56	3.11(.70); .91	3.48(.71); .86	3.70(.72); .84	20
Turkey	390	45	3.16(.93); .94	3.50(.77); .85	3.85(.88); .90	37
U.K.	671	51	2.78(.80); .92	3.16(.94); .89	3.75(1.01); .94	89
Ukraine	186	62	3.43(.82); .93	3.54(1); .91	3.65(1); .84	25
U.A.E	205	69	3.34(.88); .94	3.55(.87); .85	3.82(1.01); .91	36
Uruguay	111	54	2.38(.84); .91	3.24(.88); .89	4.02(.90); .88	36
U.S.A	252	46	2.97(.89); .93	2.86(1.04); .90	3.67(1.15); .93	91

Notes: N=14502; SusHRM – *Sustainable Human Resources Management Practices*; OI – *Organizational Identification;* JS – *Job Satisfaction;* IND – *Hofstede's Individualism-Collectivism; α* – Cronbach's Alfa.

Appendix 2: Robustness analysis: Alternative method for measuring culture (GLOBE approach)

Theorizing about the moderation role of cultural individualism suggested that such interaction could exist. The research presented here supported this assumption. Despite this, tomake sure our inference was correct we conducted additional robustness analyses using a different approach to studying national culture – the GLOBE model (House *et al.*, 2004). Additional robustness analyses address the postulated need for greater research credibility and replicability in different contexts (Nosek *et al.*, 2022).

The GLOBE, unlike the Hofstede approach, focuses not only on values and beliefs (how things should be) but also on existing practices (how things are). In addition, it captures two dimensions: in-group collectivism (degree to which collective loyalty, pride, and cohesiveness is expressed) and institutional collectivism (reflects the extent to which collective distribution of resources is accepted) (House *et al.*, 2004). As a result, there are 4 dimensions that can be considered in analyses. Previous research has also shown that the Hofstede model can explain various job outcomes differently than GLOBE (Brewer & Venaik, 2011), leading to conflicting interpretations. The problem with the GLOBE approach is the smaller number of countries with available indicators, resulting in 19 countries being excluded from our robustness analyses (including: Belgium, Bulgaria, Czechia, Croatia, Estonia, Ghana, Malta, Lithuania, Nepal, Norway, Pakistan, Peru, Serbia, Slovakia, Sri Lanka, Suriname, Ukraine, U.A.E and Uruguay). We obtained country-specific data from: https://globeproject.com/results/countries/POL?menu=country#country

Under the same assumptions of constructing the research model (including controlling at the L1 level for age, education and seniority, and at the L2 level for GNI ratio), we found that (in step 2: fixed slope) institutional collectivism practices (but not institutional collectivism values, in-group collectivism values and practices) predicts employee job satisfaction scores (β = -.195; $p < .01$). In short, results provide evidence that a 1-unit increase in institutional collectivism practices is associated with a -.195 decrease in a country's average employees job satisfaction. The conclusion indicated that not collective loyalty, pride and cohesion (high in-group collectivism), but valued individual goals and achievements (low institutional collectivism) explain the results for job satisfaction in the different countries. In step 4 (random slope) the results tell us that employees from countries with high institutional collectivism have significantly lower job satisfaction than employees who living in countries

with low institutional collectivism (β = -.184, p < .05). In the 5th step, we tested the interaction between sustainable HRM and institutional collectivism. The result was similar and statistically insignificant to Hosftede's individualism-collectivism dimension (β = -.038; 95%CI -
.138; .063). Thus, it can be concluded with higher confidence that the individualism-collectivism dimension does not have a moderating role in the relationship between sustainable HRM and job satisfaction. In the last step, we tested a three-way moderation of sustainable HRM x organizational identification x institutional collectivism. The result, as with the Hofstede's model, demonstrated statistical significance (β = .086, p < .01) and indicated that the sustainable HRM x organizational identification increase job satisfaction in individuals with low identification with the organization more strongly in countries with low institutional collectivism (-1SD: β = .431; p < .01) than in cultures with high collectivism (+1SD: β = .341; p < .01). Therefore, our main analysis has received additional empirical support.