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Going green and sustainable: The influence of green HR practices on the organizational rationale for sustainability

Helena Mateus Jerónimo*, Paulo Lopes Henriques, Teresa Correia de Lacerda, Filipa Pires da Silva, Pedro Rino Vieira

Advance/CSG, ISEG, Universidade de Lisboa, Rua Miguel Lupi 20, 1249-078 Lisboa, Portugal

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ABSTRACT

Organizations that go green need their employees to perceive that sustainability is a priority in order to increase pro-sustainability behavior. Several factors can influence how employees perceive their organization's commitment to sustainability; however, no research has yet explored how green human resource management can influence that perception. This study thus examines the role of green hiring, green training, and green compensation, along with age and gender, in sustaining the organizational rationale for sustainability (ORS). Results from a sample of 275 Portuguese employees, analysed through the fuzzy-set qualitative comparative analysis (fsQCA), shows that perceived ORS is mainly grounded in green hiring, and to a lesser extent, in green training. Green hiring is especially important for older employees, whereas younger employees require green training. Green compensation is surprisingly irrelevant. The study is useful for researchers and practitioners who seek to understand employees' perception about the value and priority their organizations give to sustainability.

1. Introduction

In the years to come, sustainability is likely to continue to be the top concern for managers and organizations. Environmental legislation and social pressure compel organizations to adopt policies and practices in the hope of effectively improving the economic, social, and environmental pillars of sustainability by embedding them in their mission and strategy (e.g., Ehnert, Parsa, Roper, Wagner, & Muller-Camen, 2016). But organizations also need to ensure their reputation and a long-term competitive advantage as well as the sustainability of resources and satisfaction of all stakeholders, namely regulators and employees (e.g., López-Gamero, Molina-Azorín, & Claver-Cortés, 2011; Guerci, Longoni, & Luzzini, 2016).

Green practices for personnel management – known as "green human resource management" (Green HRM) – are part of a more sustainable strategy for business management. Indeed, to accomplish the environmental pillar of sustainability, organizations must adopt a green culture that re-orients not only their entire strategy, but also the values, attitudes and behaviors of all who work there. It is in this reorientation and organizational change that green HRM practices are important as they influence employees' attitudes and behaviors toward the desired environmental performance (Guerci & Pedrini, 2014). Studies have found that several green HRM practices, such as hiring (which stands for recruitment and selection), training, and compensation, are powerful tools for achieving sustainable goals through employees (e.g., Boudreau & Ramstad, 2005; Renwick, Redman, & Maguire, 2013; Ahmad, 2015).

Along with these practices, organizations need to also focus on establishing sustainability as a core value. More than organizations' actual actions, what really counts is what employees perceive about their organization's view of sustainability, which is a process known as "organizational rationale for sustainability" (Tosti-Kharas, Lamm, & Thomas, 2017). The perceived organizational rationale for sustainability (ORS) has the potential to be more powerful than personal beliefs (Tosti-Kharas et al., 2017). Accordingly, organizations that intend to "go green" need their employees to perceive and believe that they actively support sustainability.

Despite recent developments in this field, there is still a need for more empirical studies that explore the interaction between the organizations' efforts toward sustainability and green practices (De Prins, Beirendonck, De Vos, & Segers, 2014; Ehnert et al., 2016). The studies on perceived ORS have examined its effects on employees' organizational citizenship behaviors toward the environment through their identification with their organization (Tosti-Kharas et al., 2017).

* Corresponding author.
E-mail addresses: jeronimo@iseg.ulisboa.pt (H.M. Jerónimo), lopeshen@iseg.ulisboa.pt (P.L. Henriques), tlacerda@iseg.ulisboa.pt (T.C.d. Lacerda), fps@iseg.ulisboa.pt (F.P. da Silva), rinovieira@iseg.ulisboa.pt (P.R. Vieira).

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However, no research has yet explored the effect of the antecedents on perceived ORS. Simultaneously, the literature does not present a consensus about the effects of gender or age on sustainability (Wiernik, Ones, & Dilchert, 2013; Meinzen-Dick, Kovarik, & Quisumbing, 2014). This study uses a fuzzy-set qualitative comparative analysis (fsQCA) to fill this gap by examining three green HRM practices as well as gender and age to analyze their presumable effects on the perceived ORS. From the organization's point of view, sustainability goals can be achieved through green hiring that can introduce employees who already have pro-sustainability values and beliefs; to training that encourages them to become more aware and to learn and adopt new skills; and to compensation that can motivate and reinforce sustainable behaviors. Thus, an understanding of whether these practices, or any, can sustain ORS is critical to establishing a broader perceptual fabric that enables organizations to achieve the goal of making their employees realize that they truly value sustainability.

This study contributes to the awareness of managers regarding the influence of different green HRM practices on the overall strategy toward sustainability to better enable them to achieve a better fit between the two. It also provides empirical evidence for the centrality of developing green hiring and training practices to encourage organizational sustainability, rather than focusing on green compensation. Furthermore, it calls attention to the fact that gender and age are also influential conditions in the process.

The paper is organized as follows: Section 2 outlines the most relevant theoretical insights. Section 3 describes the method. Section 4 presents and discusses the results. Section 5 highlights the main conclusions of the study, its theoretical and practical implications, and its limitations and avenues for future research.

2. Literature review

2.1. The organizational rationale for sustainability

Organizations are increasingly challenged to incorporate sustainability practices into their strategies by requiring commitments and contributions from the entire organization (Boudreau & Ramstad, 2005; Daily, Bishop, & Govindarajulu, 2009). Recent research has shifted the focus from a purely organization-centric approach to a complementary individual-level perspective (Tosti-Kharas et al., 2017). In this respect, an understanding of how employees form their perceptions on why their organization values sustainability, the so-called ORS, is important. Tosti-Kharas et al. (2017, p. 190) define the perceived ORS as "the degree to which employees perceive that their organizations support sustainability." According to these authors, employees might perceive their organizations' orientation toward sustainability as justified for moral (eco-centric rationale) or business reasons (organization-centric rationale). These two rationales mean that either employees perceive that their employers base their sustainability priorities on a genuine plan to protect natural resources or they consider them as trying to improve the reputation of the organization by managing impressions and saving on costs.

The literature shows that employees' perceptions about the value and importance that their organizations attach to sustainability matter more than organizations' actual behavior in determining organizational identification and organizational citizenship behavior toward the environment (Glavas & Godwin, 2013; Tosti-Kharas et al., 2017). As a result, organizations can not implement new sustainability policies and practices successfully without counting on individuals' behavior (Lülfs & Hahn, 2013) and their subjective perceptions of its rationale for acting sustainably (Tosti-Kharas et al., 2017). Employees are more prone to engage in eco-friendly behavior in the workplace if they perceive that their organization simultaneously has environmental policies and takes concrete actions that indicate their willingness to behave in a green way (Paillé & Raineri, 2015). Frequently, organizations try to support and motivate employees through initiatives such as training, development, and compensation that are oriented toward green organizational targets (Mahoney & Thorn, 2006; Perron, Côté, & Duffy, 2006). These practices are undoubtedly relevant; but, knowing that perceptions drive behavior, one must also consider the role of perceived ORS in enhancing employees' pro-environmental behavior even if they personally do not hold strong sustainability values (Tosti-Kharas et al., 2017).

2.2. Sustainability and green HRM practices

Over the past several decades, organizations have felt increasing pressure to include sustainability in their management criteria because stakeholders, policymakers, and consumers perceive that some business activities have negative consequences for the environment. The research has recognized the positive impact of "going green" on financial performance for both small and large firms (Clemens, 2006). Even stock markets are pushing organizations to improve their green behavior as part of their corporate social responsibility (Flammer, 2013). And, as a consequence, a majority of CEOs have acknowledged that going green is critical for the future success of their organizations (Accenture & UNGC, 2010). As a result, organizations have had to make some changes in their culture, business model, and decision-making with the aim of preserving the ecosystem and its resources for future generations. This sustainability orientation has become a source of competitive advantage that has led to long-term organizational success (e.g., Boudreau & Ramstad, 2005; Hediger, 2010).

Sustainability at the organizational level requires employees' engagement with environmentally aware policies and initiatives (Ren, Tang, & Jackson, 2018). One way to proactively address this requirement is through green HRM practices. These practices help to promote employees' green awareness, ability, and behavior for the development of a green culture (Renwick et al., 2013). Green HRM practices are thus defined as "an organization's aspiration to design and implement an HRM system that supports a proactive and positive approach to addressing environmental concerns" (Ren et al., 2018, p. 778).

Green HRM practices contribute to environmental performance by influencing employees' attitudes and behaviors. The Ability-Motivation-Opportunity (AMO) model, the most widely used theoretical framework for green HRM, explains that green behavior might be promoted by increasing green abilities (what employees are able to do), green motivation (what they want to do), and green opportunities (which opportunities they have) (e.g., Pinzone, Guerci, Lettieri, & Redman, 2016). When responsibility is shared, and employees get "green empowered," their motivation to pursue a green behavior increases (Tariq, Jan, & Ahmad, 2014). Green practices are also positively associated with the adoption of organizational citizenship behaviors toward the environment (e.g., Paillé, Chen, Boiral, & Jin, 2014). Managers' involvement, either senior or line supervisors, is particularly important as they reach many employees, can spread environmental messages, serve as a role-model for desirable environmental behavior, and influence employees to embrace green behavior (Zibarras & Coan, 2015). Among the most-studied green practices, green hiring, green training, and green compensation stand out.

2.2.1. Green hiring

To comply with the objectives of sustainability, organizations must hire job applicants with behaviours and a sensitivity for the environment, because they need to count on their willingness to engage in pro-environmental activities to support their sustainability performance (Guerci et al., 2016). This "green collar recruitment," to use the expression suggested by Renwick et al. (2013, p. 3), creates a fit between both the employees' and the employers' values and concerns about environmental preservation that thus increases employees' motivation and engagement (Mandip, 2012).

Gaining reputation as a green employer is also an effective way to attract quality candidates (Jackson, Renwick, Jabbour, & Muller-

Camen, 2011). It creates a competitive advantage by being able to read external opportunities (Mandip, 2012) to ensure staying one step ahead in the "war for talent" (Renwick et al., 2013). Several studies show that having green credentials and a green image are strong predictors of the attractiveness of employment at the organization (e.g., Behrend, Baker, & Thompson, 2009).

There are several mechanisms that green employers can implement. First, job descriptions and personnel specifications should reflect environmental dimensions as should the interview. Further, the interview can follow a script to find out the candidate's environmental knowledge and values. In particular, in the personnel specification, personality factors could be incorporated, as previous studies link some of the big five personality traits (including openness, agreeableness, and conscientiousness) to green behavior (Ones & Dilchert, 2013, cit. in Zibarras & Coan, 2015). Alternatively, this kind of green profile can also arise from the identification of the main skills of the best green employees (Ciocirlan, 2017). Second, advanced technologies have enabled the process to become more paperless (reducing costs and having less of an impact on the environment) and to provide much more information. Examples include posting vacancies on the company website and/or online job portals; stipulating that all correspondence should be submitted and accepted online (e.g., resumés, acceptance letters, etc.); and carrying out assessment tests online, conducting online or video-conferencing interviews, and providing information about environmental management policies and actions via the company website (Renwick et al., 2013; Bangwal & Tiwari, 2015; Khurshid & Darzi, 2016).

2.2.2. Green training

A powerful tool for a successful sustainability effort is green training. Its strength is based on achieving different goals at different levels: (1) to provide information about the organization' green policies, procedures, and initiatives such as the vision/mission statement (Mandip, 2012); (2) to generate environmental awareness (Perron et al., 2006) by engaging employees in green "best practices" that are related to recycling, waste management, energy efficiency, proper use of resources, and reducing the carbon footprint (e.g., Govindarajulu & Daily, 2004; Renwick et al., 2013; Ahmad, 2015); and (3) to empower employees by developing their abilities to identify environmental problems and their correspondent solutions (Govindarajulu & Daily, 2004). Green training programs can provide tools for individuals and teams to become effective in green activities, but the organization must also put them into practice to ensure that employees have a sustainable perspective in mind, with, for example, all course material made available online, thus reducing paper consumption (Khurshid & Darzi, 2016).

The literature shows that the effects of green training on environmental performance and goals are contradictory. While some studies show that green training plays a key role in achieving environmental goals (Ramus, 2002) and levering environmental performance (Vidal-Salazar, Cordón-Pozo, & Ferrón-Vilchez, 2012; Longoni, Golini, & Cagliano, 2014), others do not find any benefit from training employees as opposed to not receiving it (Perron et al., 2006). The effectiveness of green training depends on an adequate need analysis, trainee readiness to learn, and commitment to training that transfers to the job, among other requisites (Jackson et al., 2011). If they are not taken into consideration when preparing the design, content, and delivery of the training program, all these requisites become barriers that lead to failures in achieving green training goals (Zibarras & Coan, 2015).

2.2.3. Green compensation

The reward system should be designed to incentivize, encourage, and reinforce pro-environmental behavior and practice (e.g., Govindarajulu & Daily, 2004; Jackson et al., 2011; Ramus, 2002). By including green criteria in the compensation, managers can increase the possibility of the employees adopting or adhering to eco-initiatives. This criteria can reinforce their commitment to the organization's environmental program through, for example, by asking employees to suggest green ideas associated with their jobs that can then be converted into goals which in turn are used as the basis for receiving incentives (Ahmad, 2015).

Green compensation and benefits can assume many forms. It can be monetary (e.g., cash, bonuses, premiums and financial incentives for staff to purchase green products, hybrid cars, or bicycles), non-monetary (e.g., sabbaticals, time off, and gift certificates), recognition-based (e.g., excellence awards, annual awards dinners, daily praise), or negative reinforcement (e.g., criticism, warnings), and promotion (e.g., Govindarajulu & Daily, 2004; Renwick et al., 2013; Bangwal & Tiwari, 2015).

However, developing a green reward system can be a hard task because of the difficulties in assessing environmental behavior and performance in an accurate and fair way (Fernández, Junquera, & Ordiz, 2003). Studies show that monetary rewards tend to be offered only to senior managers (Fernández et al., 2003; Renwick et al., 2013). Rarely do organizations report rewards to staff in lower positions (Renwick et al., 2013; Zibarras & Coan, 2015); however, when they exist, these rewards are mainly non-monetary recognition rewards (Govindarajulu & Daily, 2004).

2.3. Effects of gender and age on sustainability

The research is somewhat inconclusive about the effects of gender and age on sustainability that paints a nuanced picture of these demographic categories. Gender does unquestionably matter for sustainability (Meinzen-Dick et al., 2014). The ecofeminist theory, feminist political ecology, and natural resource management (Mies & Shiva, 1993; Ray, 2007) posit the claim that women are inherently closer to nature and are more likely to be responsible for the environment's care and conservation. However, the research has questioned this simplified explanation of the link between nature and women as assuming that women are a homogeneous group (Meinzen-Dick et al., 2014). The field now offers a more mixed image. Several studies continue to support that women hold stronger pro-environmental values, beliefs, attitudes, and behaviors than men (Zelezny, Chua, & Aldrich, 2000) and that educated females put the greatest value on going green (De Silva & Pownall, 2014). Others call attention to a variety of factors such as gender divisions in the power to make decisions. The extent to which men and women undertake sustainable initiatives depends on the extent of their decision-making power (Meinzen-Dick et al., 2014). Thus, understanding the inner motivations that each has as well as their differential access to power structures is fundamental to analyze the effects of gender on sustainability practices.

Age is also fundamental when dealing with sustainability, especially when the workforce is made up of more than one generation that have different perspectives, attitudes, and sensitivities toward environmental issues (Anderson, Baur, Griffith, & Buckley, 2017; Twenge, 2010). Despite the inconsistencies in the literature (for a meta-analysis, see Wiernik et al., 2013), which requires a malleable analysis, there are some strong claims that younger generations have an association with environmental concerns. Among other characteristics, Millennials (born after 1980) are frequently said to be more sensitive to their organization's environmental policies and to be more willing to face ethical predicaments and dissonances between their own green practices and beliefs and the collective ones practiced in their workplaces (Wu, Tang, & Sun, 2018). This sensitivity leads them to understand, judge, and react in the organizational context in a distinct way (Warner & Zhu, 2017), and they desire to work for organizations that are aligned with their values and beliefs (Chaudhary, 2018). However, some studies argue that older people appear to engage more with the environment (Wiernik et al., 2013; Otto & Kaiser, 2014). An interesting pattern for age differences in environmental sustainability shows a similarity of environmental commitment and concern in younger and older people, but a discrepancy in their ecological behaviors (e.g., avoiding

environmental harm and conserving raw materials and natural resources), as older people show a more pro-environmental behavior than younger people (Wiernik et al., 2013; Otto & Kaiser, 2014). This behavior might be because older people tend to be more conscientious and to value frugality (Wiernik et al., 2013) and because of longer exposure to environmental information (Otto & Kaiser, 2014). In this scenario, younger workers need additional organizational initiatives (e.g., training, incentives) to stimulate their ecological behavior (Wiernik et al., 2013). This study includes the employees' age as a proxy to ascertain the generation to better understand if and how it affects the ORS.

3. Method

3.1. Fuzzy-set qualitative comparative analysis (fsQCA)

This study uses fsQCA, developed by Charles Ragin (2000, 2008, 2014), to achieve its objectives. This method allows to identify the conditions or combinations of conditions that explain the presence or absence of a given outcome, as it captures the multiple interactions and complex causal relationships that lead to that outcome (Ragin, 2008; Fiss, 2011). A condition is considered sufficient when it explains the outcome; a condition is necessary if it is always present when the outcome occurs. If a combination of sufficient conditions can explain the same outcome, that is multi-causality (Ragin, 2008).

The use of fsQCA may be more preferable than multiple regression analyses for the purposes of theoretical advances and testing in several fields, such as management (Woodside, 2013). The reason is that it balances a qualitative with a quantitative approach (Kraus, Ribeiro-Soriano, & Schüssler, 2018) to analyze the combined effect of the variables on a certain outcome. Usually, as real-life phenomena are complex, the results are combinations of conditions (Álvarez-Coque, Más-Verdú, & Roig-Tierno, 2017). Additionally, fsQCA also allows for asymmetric causality (non-symmetric configurations for the presence and the absence of the outcome), multi-finality (the same conditions may lead to different outcomes), and equifinality (different configurations lead to the same outcome) (Rihoux & Ragin, 2009; Fiss, 2011; Basedau & Richter, 2014).

FsQCA requires following a series of steps (Ragin, 2008). The first is the identification of the sample of relevant cases and a list of casual conditions that are involved in a concrete outcome. In this study the casual conditions are age, gender, green hiring (GH), green training (GT), and green compensation (GC); the outcome is organizational rationale for sustainability (ORS). The second step is to calibrate the conditions in order to set membership in such a way that levels of membership represent meaningful groupings (Crilly, Zollo, & Hansen, 2012; Ragin, 2008). The calibration of the conditions in the study should reflect theoretical and empirical knowledge of the variables (Ragin, 2008). Following Ragin (2008), this study establishes three different anchors that are necessary to calibrate the data: full membership (1), full non-membership (0), and a crossover point (0.5). The study inputs the value 0.499 instead of 0.5 in the fsQCA software program (Ragin, Drass, & Davey, 2003) because cases with condition values of 0.5 are automatically excluded from the analysis. Table 1 presents the three values used for calibrating each condition as well as the outcome variable. After calibration, the third step is to generate a truth table. This table (sized as 2^K, where k represents the number of conditions) offers all logical possible combinations of the available conditions. The last step is to reduce the truth table to achieve three different but not contradictory solutions – parsimonious, complex, and intermediate – that offer all possible combinations that lead to the outcome (Ragin, 2014).

Coverage and consistency are parameters of the fit and are the two main indicators used by fsQCA. Coverage refers to the portion of all cases in the outcome covered by a single sufficient path, whereas consistency shows the degree of membership of a condition in a configuration (Fiss, 2011; Ragin, 2008).

Table 1
Profile of respondents and summary statistics.

N		275	
Age			
	Average	31	
	St. dev.	8	
Gender			
	Male	42,5%	
	Female	57,5%	
Years at school			
	Average	15,8	
	St. dev.	2,7	
Tenure (in years at work)			
	< 1 year	35%	
	1–4 Years	44%	
	> 4 Years	21%	
Being a supervisor		**Female**	**Male**
	Yes	19,1%	93%
	No	80,8%	7%
Business sector			
	Primary + Secondary	8,4%	
	Tertiary: Hotels	37,5%	
	Food retail	49,1%	
	Others	5,0%	

Conditions	ORS	Age	Gender	GH	GT	GC
Mean	3.2	31	0.4	2.4	2.6	2.2
SD	0.9	8	0.5	0.9	1.0	0.9
Minimum	1.0	19	0	1.0	1.0	1.0
Maximum	5.0	63	1	5.0	5.0	5.0
Calibration						
0.9	4.6	47		4.0	4.0	3.7
0.5	3.3	28		2.5	2.5	2.0
0.1	2.0	22		1.0	1.0	1.0

ORS = Organizational rationale for sustainability; GH = green hiring; GT = green training; GC = green compensation; age = the age of the respondent measured in years; gender = binary condition: 1 for male, 0 for female.

3.1.1. Data collection

Although the original qualitive comparative analysis (QCA) was first and foremost applied to small-N studies (e.g., between 15 and 40 cases), this study follows more recent research that has extended QCA to large-N settings (e.g., Ragin & Fiss, 2008; Fiss, 2011; Tho & Trang, 2015). This research is based on a non-probabilistic and convenient sample of 275 responses. Data were collected in Portugal through an online survey. The survey explained the objectives of the study and that anonymity was guaranteed. The questionnaire was translated from English to Portuguese and then back-translated into English to maintain linguistic equivalence of the constructs. A pre-test was performed to assure that the questionnaire had a reliable structure and was well understood; some minor amendments were made. The successfully completed responses were provided by employees working across a wide range of organizations and economic sectors, mostly in the tertiary sector, namely hotels and retail food. Female respondents represented a slightly higher percentage of the sample (57.5%), and they occupied mainly nonmanagerial positions (80.8%), while men primarily held managerial positions (93%). The average age of the respondents was 31, and most had worked for their current employer for one to four years (44%). More information on the respondent profile is presented in Table 1.

3.1.2. Measures

The study's outcome (ORS) was measured using a shorter version of Tosti-Kharas et al. (2017) model (only the scale related to the organization-centric rationale). The study used questions such as: "My company believes that a good reputation for responsible environmental

practices helps attract and retain good employees", and "My company believes that good environmental practices can save it money." A five-point Likert-type scale was used to rate the agreement or disagreement of the respondents with anchors of 1 = strongly disagree and 5 = strongly agree.

To measure the conditions of GH, GT, and GC, the methodology of Guerci et al. (2016) was used but with the necessary adaptations. The employees were asked to rate a series of sentences related to each green HRM practice on a five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree) according to their perception about what the organization had put into practice in their workplace. Examples of the sentences used are: "In my organization job descriptions include environmental responsibilities," "My organization has environmental training for employees," "My organization practices variable compensation based on environmental performance." Finally, some questions about demographic data were asked, such as age and gender.

3.1.3. Common method variance bias

To avoid the common method variance bias (CMVB), several measures were taken when preparing the questionnaire and after collecting the data: (1) the order of the questions was counterbalanced; (2) total anonymity was guaranteed and all information that could serve as backtracking from the questionnaire to the respondent was removed, and; (3) the Harman's single-factor was tested and the Common Latent Factor technique was applied (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The results established the absence of CMVB.

4. Results and discussion

Following Rihoux and Ragin (2009), Schneider and Wagemann (2010), and Ragin (2000), this study tests whether any of the ORS antecedent conditions might be a necessary condition. It then addresses the sufficient conditions by presenting two models: (1) ORS = *f* (age, gender, GH, GT, GC) and (2) ~ ORS = *f* (age, gender, GH, GT, GC). The symbol ~ represents the absence of the condition or the outcome.

4.1. Results

4.1.1. Analysis of the necessary conditions

Table 2 presents the results of the necessary conditions for both the outcome (ORS) and its absence (~ORS).

The results presented in Table 2 show that only GT is considered to be a necessary condition for ORS, and only ~GH is necessary for ~ORS. To support ORS, the organization needs to invest in GT, while simultaneously it needs to avoid neglecting the GH of new employees, given the results for the occurrence of ~ORS.

Table 2
Summary of necessary conditions.

Outcome variable					
ORS			~ORS		
Conditions	Consistency	Coverage	Conditions	Consistency	Coverage
age	0.624	0.668	age	0.638	0.648
~age	0.671	0.661	~age	0.673	0.629
GC	0.795	0.762	GC	0.61	0.555
~GC	0.536	0.592	~GC	0.738	0.774
GT	**0.819**	0.803	GT	0.562	0.523
~GT	0.513	0.552	~GT	0.788	0.806
GH	0.719	0.822	GH	0.515	0.558
~GH	0.614	0.571	~GH	**0.835**	0.739
gender	0.445	0.537	gender	0.405	0.463
~gender	0.555	0.495	~gender	0.596	0.505

ORS = Organizational rationale for sustainability; GH = green hiring; GT = green training; GC = green compensation; age = the age of the respondent measured in years; gender = binary condition: 1 for male, 0 for female.

Table 3
Results of the intermediate and parsimonious solutions (ORS).

Intermediate solution (ORS)			
Model: ORS = f (age, gender, GT, GC, GH)			
Frequency cutoff: 1.0000			
Consistency cutoff: 0.8950			
Rows: 28			
Casual Configuration	Raw Cov.	Unic. Cov.	Cons.
GT*~age	0.565889	0.067626	0.853796
gender*GT	0.380378	0.031899	0.79697
gender*~GC*GH	0.154675	0.00284	0.89353
GC*GT*GH	0.639115	0.087332	0.873897
gender*GH*age	0.234493	0.002906	0.901362
solution coverage:	0.803076		
solution consistency:	0.816269		
Parcimonious Solution (ORS)			
Model: ORS = f (age, gender, GT, GC, GH)			
Frequency cutoff: 1.0000			
Consistency cutoff: 0.8950			
Rows: 31			
Casual Configuration	Raw Cov.	Unic. Cov.	Cons.
~age*GT	0.565889	0.04955	0.853796
GH*GT	0.677394	0.094988	0.869755
GH*gender	0.380378	0.030977	0.79697
GH*~GC*gender	0.154675	0.000284	0.89353
age*GH*gender	0.234493	0.002906	0.901362
solution coverage:	0.810732		
solution consistency:	0.814369		

ORS = Organizational rationale for sustainability; GH = green hiring; GT = green training; GC = green compensation; age = the age of the respondent measured in years; gender = binary condition: 1 for male, 0 for female.

4.1.2. Analysis of the sufficient conditions

In order to produce the sufficient conditions, several procedures have to be followed. This study follows the insights offered by Ragin (2008), Schneider, Schulze-Bentrop, and Paunescu (2010), and Más-Verdú, Ribeiro-Soriano and Roig-Tierno (2015) to produce the truth table that lists all possible combinations that lead to the outcome.

After the truth table, the models search for solutions. Based on the recommendations of Fiss (2007), Ragin (2000, 2008, 2014), Schneider and Wagemann (2010), and Más-Verdú et al. (2015), Table 3 presents the results for the intermediate solution for ORS and ~ORS as well as the cutoff values applied in the study. The study also offers the parsimonious solutions as suggested in the literature (Schneider & Wagemann, 2010), and it uses the intermediate solution that gives the study the capacity to make simpler assumptions that thus match up to the theoretical expectations. The results from both the intermediate and parsimonious solutions should take into consideration the findings of De Meur and Rihoux (2002), Ragin, Drass, and Davey (2003), Ragin (2008, 2009), and Woodside (2013) regarding the threshold for the consistency and coverage scores. The study considers a solution that is suitable for analysis (solution coverage above > 0.25; solution consistency is ≥0.75; and configuration consistency > 0.80).

Regarding the ORS, the configurations with the highest raw coverage values, given the consistency boundaries (above 0.8), are: *GC*GT*GH* (0.639115); GT*~*age* (0.565889), *gender*GH*age* (0.234493), and *gender*~GC*GH* (0.154675) (the * symbol represents the logical operator AND). The results show that GT, GH, and gender are important to sustain ORS. Specifically, regarding age, being young or old contributes both to the presence of ORS in different casual configurations but requires different sets of conditions. Being old requires the presence of both GH and being male, whereas being young requires GT. The same solution occurs with GC, as there are paths where GC also requires GH and GT, and others where ~GC is associated

Table 4
Results of the intermediate and parsimonious solutions (~ORS).

Intermediate Solution (~ORS)			
Model: ~ORS = f (age, gender, GT, GC, GH)			
Frequency cutoff: 1.000			
Consistency cutoff: 0.906776			
Rows: 24			
Casual Configuration	Raw Cov.	Unic. Cov.	Cons.
GC*~GT	0.453819	0.040319	0.893298
~GT*GH	0.377884	0.018442	0.872286
gender*~GC*~GH	0.276488	0.052714	0.831761
~GC*~GH*age	0.496977	0.1005	0.893783
solution coverage:	0.711267		
solution consistency:	0.831166		
Parcimonious solution (~ORS)			
Model: ~ORS = f (age, gender, GT, GC, GH)			
Frequency cutoff: 1.00			
Consistency cutoff: 0.906776			
Rows: 31			
Casual Configuration	Raw Cov.	Unic. Cov.	Cons.
GH*~GT	0.377884	0.012395	0.872286
~GT*GC	0.453819	0.04032	0.893298
~GH*~GC*gender	0.276488	0.120585	0.831761
age*~GC*~gender	0.30837	0.105876	0.859521
solution coverage:	0.716643		
solution consistency:	0.823439		

ORS = Organizational rationale for sustainability; GH = green hiring; GT = green training; GC = green compensation; age = the age of the respondent measure in years; gender = binary condition: 1 for male, 0 for female. ~ denotes the absence of the condition.

with being male and GH that denotes the lower importance of GC.

The display of the intermediate and parsimonious solutions identifies the core conditions and those present in both solutions, which indicates a strong causal relationship (Fiss, 2007). The core conditions for the outcome ORS are: *~age; GT, GH, ~age,* and *gender* that shows the importance of having sound GT and GH.

4.1.3. Analysis of the absence of the outcome

Regarding the models that address the absence of the outcome (~ORS) and that consider the same coverage and consistency thresholds, the results presented in Table 4 indicate a different pattern of casual conditions from those found in the presence of the outcome (ORS). The intermediate solutions for the absence of the outcome are informative (with a consistency value higher than 0.8). Four configurations exist that meet the required threshold. Table 4 presents those.

The paths are *~GC*~GH*age* (0.496977), *GC*~GT* (0.453819), *~GT*GH* (0.377884), and *gender*~GC*~GH* (0.276488). All these paths reinforce the previous results in which GT and GH are important human resource practices, and they also support ORS although GC should be avoided. In the absence of the outcome (~ORS), the core conditions are: ~GC, GC, ~GT, GH, and ~GH and gender and age that strengthen even more the relevance of adopting GT practices to support ORS.

When comparing the casual configurations for both intermediate solutions (ORS and ~ORS), the importance of GH is fully apparent. The GH has the role of an anchor to achieve ORS, while not one condition assumes this role in the absence of ORS. Interestingly enough, all casual configurations for the absence of ORS are basically formed by the absence of the conditions related to green HRM practices.

4.2. Discussion

The conditions or causal combinations that result from the analysis are threefold in explaining the support for ORS or its absence: (1) the importance of GH, especially when hiring older employees; (2) the prevalence of training for younger employees; and (3) the irrelevance of GC.

The configurations *gender*GH*age*, *GC*GT*GH*, *gender*~GC*GH* show that green hiring is a central condition to sustain ORS. This is the most prevalent practice through which employees form a perception about their organizations' beliefs on sustainability and an understanding of what matters to them. "Greening" this process is a unique opportunity in a double way. On the one hand, it conveys the organization's sustainability values from the inception by hiring like-minded employees and by establishing a specific psychological contract with them (Guerci et al., 2016; Renwick et al., 2013; Mandip, 2012). On the other hand, it serves as a practice model that reinforces the communication of these values to the existing employees that encourages them to embrace the organization's vision and to commit to a long-term sustainable endeavor (Jepsen & Grob, 2015). The literature argues that when employees believe that their organizations support sustainability, they perform in a sustainable way regardless of their personal values. This argument means that instead of focusing on hiring employees who hold pro-sustainability values, organizations should rather focus on establishing sustainability as a core value (Tosti-Kharas et al., 2017, p. 202). Needless to say, establishing sustainability as a core value is central; however, the results obtained in this study restore the lost centrality of the hiring practice by leveraging it as a key component for an overall sustainable organizational strategy. In contrast to the conclusion that employees' perceptions are more important than the concrete actions of the organization (Glavas & Godwin, 2013; Tosti-Kharas et al., 2017), our research shows that employees perceive ORS when the organization integrates environmental sustainability goals into the hiring process.

Younger employees require appropriate green training, so that they can perceive ORS. This is reflected in the configuration *GT*~age*. In accordance with previous findings (Wiernik et al., 2013), younger employees tend to be concerned about sustainability as they live in an era where sustainability is one of the greatest issues (e.g., Wu et al., 2018). However, they need additional organizational information to become better equipped to carry out a pro-environmental behavior (e.g., Ramus, 2002; Govindarajulu & Daily, 2004; Ahmad, 2015) and to perceive and support ORS.

Regarding green compensation and its absence as a condition in the causal configurations that support ORS, *gender*~GC*GH*, the results point to the idea that compensation is not essential to perceiving and supporting ORS. Employees' indifference to green compensation might be due to their intrinsic motivation toward sustainability. A possible explanation for this motivation could be the self-determination theory (Deci, Olafsen, & Ryan, 2017) that argues that caution is required with respect to providing rewards as a motivational tool, not because employees do not like to receive them, but because pursuing goals for intrinsic reasons has a far greater impact than extrinsic incentives. In fact, adopting rewards could provoke some collateral damage in the sense that these rewards could undermine intrinsic motivation, and thus affect employees' autonomy and responsibility. Yet the result that green compensation is less relevant than expected is still surprising because it contradicts the literature in this field that generally argues that green compensation contributes to motivating employees to adopt a pro-environmental behavior (Govindarajulu & Daily, 2004; Jackson et al., 2011; Ramus, 2002). Studies also show that organizations usually only offer GC to senior managers (Renwick et al., 2013; Zibarras & Coan, 2015). Looking carefully at the casual paths where ~GC is present, gender (being male) and GH are also present, and both are core conditions. A conclusion from this result is hard to draw in this study as most of the men in the database are supervisors. Maybe the answer lies in GH. When the proper hiring of employees with pro-sustainable behaviors occurs, they may interpret that receiving compensation as a reward for adopting green behaviors is redundant, is not appropriate, or is even demotivating. This feeling might be even greater if the employee is a supervisor who is highly committed to promoting ORS.

Further, age and gender are also influential conditions in the casual configurations that support ORS, but this influence must be interpreted with caution considering the respondents' profile. Regarding gender, the results point out that men are the greatest supporter of ORS. Green hiring is also associated with age (being older) and gender (being male). This is in line with the findings of other studies in which older employees tend to be more ecologically engaged than younger ones. They tend to be more conscientious and to value frugality (Wiernik et al., 2013) and they have more exposure to ecological knowledge (Otto & Kaiser, 2014). These findings are probably due to the demographic characteristics of the sample in which most men are supervisors, which gives them an idea of the role to be fulfilled. This idea validates Kanter (1976) structural theory that argues that power in organizations is the ability to mobilize resources to achieve organizational goals. If men have more access to positions of power, then they can participate in strategic issues, internalize policies and practices, behave as a role-model for employees, and engage in sustainable behavior, which employees are likely to replicate.

5. Conclusions

The aim of this study is to examine the role of certain green practices in human resource management, such as hiring, training, and compensation, together with gender and age, in sustaining the perceived ORS. Based on a sample of 275 employees working in different organizations and occupations, the findings clarify how employees come to perceive the value and priority their organizations give to sustainability.

The top condition is green hiring. An organization that effectively wants their employees to perceive that it values environmental sustainability needs to establish this practice in accordance with environmentally related criteria that attracts the so-called "green employees" (Renwick et al., 2013; Ciocirlan, 2017; Wu et al., 2018). These employees should already have environmental identities, values, beliefs, and attitudes that sends a signal to current employees that sustainability is a priority. Such employees tend to be indifferent to green compensation, presumably because they are intrinsically motivated to perform in a sustainable way (Deci et al., 2017). Age and gender also play important roles in influencing some of the causal configurations that support the perceived ORS, although a careful interpretation is required on account of the sample composition of this study. Concerning age, the results highlight that younger employees need green training to stimulate their ecological behavior (Wiernik et al., 2013). In turn, green hiring is especially important when hiring older employees. This link is new to the literature, but if green hiring contributes to a greener workforce (e.g., Renwick et al., 2013) and if older people show more pro-environmental behaviors than younger people (Wiernik et al., 2013; Otto & Kaiser, 2014), this finding opens an additional step to achieve ORS that could be capitalized on. With regards to gender, the results show that men with a supervisory role are more likely to sustain ORS, which corroborates Kanter (1976) structural theory that argues that work attitudes and work behavior are a function of the position in a network of hierarchical relations.

The findings of this research contribute to the advancement of the theory on organizational sustainability and green HRM practices that thus responds to the call for more studies in these areas (De Prins et al., 2014; Ehnert et al., 2016). It thus expands the field by filling a gap and identifying specific antecedents that sustain ORS, or specifically, which green HRM practices most influence the perceived ORS and what the effects of age and gender are. The theoretical contributions are threefold: (1) among the three green HRM practices analyzed, it provides evidence of the overall relevance of green hiring. This means that, instead of placing this practice at a lower level of importance (Tosti-Kharas et al., 2017), the present study shows its strength for influencing employees to perceive that sustainability issues are a fundamental part of their organizations' strategy. (2) It also shows that to increase the perceived ORS, organizations should use green hiring for older employees and green training for younger employees. Whereas the latter corroborates previous studies (e.g., Wiernik et al., 2013), the former opens a new research avenue because the research only argues that older people have a more pro-environmental behavior (Wiernik et al., 2013; Otto & Kaiser, 2014) but it lacks evidence of the link between green hiring and age differences. (3) It additionally recognizes that gender influences employees' perception of their organizations' orientation to sustainability. The fact that men have a higher perception of ORS is quite surprising in light of the studies that claim women tend to be more environmentally sensitive, but it corroborates others that call attention to the structure of decision-making power (Meinzen-Dick et al., 2014). This finding might contribute to a novel avenue of research on gender differences regarding perceived ORS that structural power and decision-making systems moderate.

In terms of managerial recommendations, this study encourages practitioners to be more aware of which green HRM practices need to be developed to support a higher perception in the employees of the organizational sustainability strategy, and how such practices can be adjusted for present and future employees depending on their age and gender. Careful green hiring should be conducted to ensure that organizations only select people who already have an environmental mindset and thus they fit in. Training should be activated as a necessary condition for young employees because, despite their generation's natural sensitivity toward environmental sustainability, managers need to train them to participate in this effort, to communicate how they can become an active part of the overall environmental management program, and to empower them to make environmentally sound decisions within the organization. When green hiring and green training processes already exist, managers must judge the effective and functional significance of rewards. This judgement does not necessarily preclude the importance of rewards as a motivation tool to promote sustainable behavior, but rather it indicates that maybe rewards should not be considered as the main motivating practice to encourage green HRM practices.

5.1. Limitations and future research

This study has limitations. One is its context-dependent nature that does not allow a generalization of the results. Despite an isomorphic pressure to integrate a pro-sustainability approach into their strategies, organizations tend to always embed specific national, cultural, political, economic, labor, and education systems in their organizational context (Matten & Moon, 2008). Another limitation concerns the composition of the sample that includes a higher percentage of men who are supervisors. This imbalance may affect the reliability of the results. Furthermore, the data relies on self-reported and perceived evaluations, whereby there is no guarantee that the respondents did not choose to answer in a more socially desirable way, which could thus result in a social desirability bias.

Future research should aim to confront perceived ORS with measurable or identifiable organizational dimensions, such as the mission/vision statements or environmental certifications (ISO standards). Additional studies may explore the influence of green HRM practices in organizations where sustainability is traditionally not a priority or even considered (primary and secondary sectors, namely mining or cement plants). Further empirical research should be conducted to uncover the reasons why green compensation does not function as a positive signal of organizations' sustainability goals in its culture, values and strategy. A closer examination of gender differences regarding perceived ORS in organizations potentially moderated by hierarchical position and access to decision-making systems would be another interesting road for further research.

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Declaration of Competing Interest

None.

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Helena Mateus Jerónimo (PhD, University of Cambridge) is an Assistant Professor of Organizational Behavior and Human Resources Management at ISEG Lisbon School of Economics and Management, Universidade de Lisboa, and researcher at CSG – Advance (Research in Social Sciences and Management). Her research interests and publications are in science and technology studies, sustainability, risk and uncertainty, and human resources management and organizational behavior. She has published in the *Journal of Risk Research, Journal of Business Research* and *Journal of Cleaner Production.*

Paulo Lopes Henriques (PhD, Universidade de Lisboa) is a Full Professor of Organizational Behavior and Human Resources Management at ISEG Lisbon School of Economics and Management, Universidade de Lisboa, and researcher at CSG – Advance (Research in Social Sciences and Management). His research and forthcoming publication explores several themes of organizational behavior such as ethics, trust, mentoring, knowledge management, human resources practices and sustainability. His research has been published in several academic journals, such as *Group & Organization Management*, *Journal of Managerial Psychology*, and *Journal of Business Research*.

Teresa Correia de Lacerda (PhD, Universidade de Lisboa) is an Invited Assistant Professor of Organizational Behavior and HRM at ISEG Lisbon School of Economics and Management, Universidade de Lisboa, and of Marketing at NOVA IMS, Universidade Nova de Lisboa. Researcher of Leadership Studies at CSG – Advance (Research in Social Sciences and Management). Her research interests are in the areas of leadership, women in leadership, business ethics and corporate sustainability. She has published in *Business Horizons*, *Business Ethics*, and *European Journal of Management Studies*.

Filipa Pires da Silva (PhD, Universidade de Lisboa) is an Assistant Professor of Information Systems and Operations Management at ISEG Lisbon School of Economics and Management, Universidade de Lisboa. She is a research member at CSG – Advance (Research in Social Sciences and Management). Her research interests include project management, information systems methodologies, leadership, management teams and also a particular interest on Requirements Engineering.

Pedro Rino Vieira (PhD, Universidade de Lisboa) is an Assistant Professor of Finance at ISEG Lisbon School of Economics and Management, Universidade de Lisboa. He is also a research member at CSG – Advance (Research in Social Sciences and Management). His research interest are on attitudes towards risk, including cross-country studies and gender effects, agents rationality, behavioral finance, efficient market hypothesis and empirical asset pricing.