

The Impact of a Green Corporate Image on Work Engagement: Mediating the Role of Green Attitudes of Employees

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Abstract: *The article aims to describe how the Green Corporate Image influences work engagement and how this relationship is mediated by green employee attitudes. The additional goal is to research how these relationships are moderated by demographic characteristic of individuals (sex, age, education, length of service, employment sector and family structure). The goals were met using a survey conducted in August 2023 among 1167 professionally active people from Great Britain. Structural Equation Modeling (SEM) was used to analyze the data. The research confirmed that there is a significant impact of Green Corporate Image on work engagement with the mediating role of green employee attitudes. Besides, the demographic characteristics of employees were mostly not significant moderators of the analyzed relationships.*

Keywords: *green corporate image, green attitudes, employee work engagement, sustainability, human resource management,*

1 Introduction

Today business is under tremendous pressure to be more environmentally friendly and responsible. Adjusting to this pressure, or even better, taking advantage of this phenomena, have become the condition to stay competitive [1-4]. However, what is more, this factor is not only applied for companies, but it can be referred to the whole economies. Thus, there is a need to ensure consistency between economic, social and environmental goals, which is visible both at the macro and micro governance level [5-7].

These societal expectations are connected with the growing social awareness of the negative impact of today business on the ecosystem and particular people lives [1, 8, 9]. As a result of the eco-pressure, the companies are simply forced to engage into many activities towards building environmental awareness, both among external and internal stakeholders. These initiatives improve business reputation and may help to strengthen business legitimacy [10-13]. They create a positive green organizational image that bring some important benefits for the company, such as stronger intention to buy and willingness to pay more for environmentally friendly goods or services [14][15]. This approach has become an important element of every day risk management process [16]. From the perspective of human resource management, these potential benefits include also higher work engagement (not only in environmental issues) and job performance [1][17]. Thus, it is not surprising that more and more companies are adopting green business practices [18][19] and are increasingly interested in building their brand on pro-environmental efforts [20]

Green companies try to build their image and brands as relevant to the natural environment and focused on conservation, and prevention of the nature and reducing pollution [18]. Such business is focused on protecting of environmental components, by definition it should grow and develop without or with minimalizing polluting water, land, air or ecosystem [21]. Pro-environmental companies are, or at least try to be, more open to producing innovative and environmentally efficient operations [22-24]

As a result, in recent years, it has become obvious that green image plays an important role in meeting the needs of many groups of stakeholders. Being green for a company is also linked with increasing interest of work candidates, who are often considered as potential pro-environmental consumer [18][25]. Thus, the growing number of companies is trying to create competitive advantages of this environmental opportunity [10][25]. From this perspective, building incentives for work engagement of employees is of special importance [26-28]. As a result, special attention should be paid here to the potential relation between a Green Corporate Image and the attitudes of the employees, which affects their work engagement.

Based on the conducted literature review, we believe that there are no other European studies available that comprehensively focus on the impact of Green

Corporate Image on general or green work engagement with the mediating role of green attitudes of employees. Some authors studied the influence of green attitudes on green image of a company [14][29] or the impact of environmental responsibility [17] or green HRM practices [30] on employee commitment or employee green engagement [1]. Some others researched how green image influences consumers' attitudes towards the company and therefore consumption decisions [31]. There are also some studies available on the relationship between Green Corporate Image and company's value [10]. However, the empirical studies on relations between three pointed constructs are missing.

To fill the pointed gap, in the article the authors made an assumption that Green Corporate Image contributes to work engagement, especially among environmentally-concerned employees. Such staff supports the company that contributes to the values that are important for work pro-environmentalists. Of course, such assumptions require confirmation, and that is the main purpose of this study.

The relationship between Green Corporate Image and work engagement, with mediating effect of green employee attitudes, seems also to be moderated by some important demographic characteristics of employees. This assumption results from the observations, where such variables as nationality, personality, sex, age, education, income, economic status, length of service, employment sector or household structure differentiated strongly employees in the aspects of Green Corporate Image, green attitudes of employees or pro-environmental work behaviors [25, 26, 32-34, 37, 38].

Therefore, the authors have set the following research goals:

1. To determine the direct impact of Green Corporate Image (GI) on employee work engagement (WE):
 - 1.1 To determine how this impact is moderated by the demographic characteristic of employees (sex, age, education, length of service, employment sector, household structure)
2. To determine how the impact of Green Corporate Image (GI) on employee work engagement (WE) is mediated by green attitudes of employees (GA):
 - 2.1 To determine how this mediated impact is moderated by the demographic characteristic of employees (sex, age, education, length of service, employment sector, household structure)

To meet the pointed objectives, the online survey was used to obtain the primary data. The data was collected in August 2023 among 1167 employees from Great Britain.

This research will contribute to the literature in the area of the relationship between Green Corporate Image and work engagement. The study describes how this impact is mediated by green attitudes of employees. As already pointed out, the authors

want also to verify if this relationship is moderated by significant demographic variables of employees (sex, age, education, length of service, employment sector and household structure).

In the first part of the paper, the current and relevant literature is discussed. Next, the methods and data are presented. Then, the results and the contributions of the research are discussed. The final part of the article provides information on limitations, future research directions and practical implications of the results.

2 The Green Corporate Image

The corporate image (CI) can be defined as perceptions that stakeholders have about a company [29]. The main components of CI, are: quality image, program image, infrastructure image, social image and general image [39]. This image can be internal (among employees, shareholders) or external (among customers, cooperators or local society). The main responses given by stakeholders to the company's image are trust, idea, and impression [40].

This construct plays a crucial role for businesses where it is difficult to distinguish products or services by their quality [41]. Image simply differs the companies from one another. Strong and positive image creates a strong relationship with stakeholders and ensure their loyalty [31]. Today, this image seems to be more important than the technical and functional characteristics of a product [25].

Green Corporate Image are perceptions that different groups of stakeholders create in their minds about environmental responsibilities and concern of an organization [42]. This image is mainly created by the behaviors of employees that incorporate the actions and behaviors of the company [43]. Employees can also ruin the Green Corporate Image by their irresponsible environmental actions that result in customers' perception that the company is hypocritical. In such case, the negative impact is strongest when the firm is formally engaged in pro-environmental activity [20]. From this perspective, the engagement and environmental approach of employees at the all stages of the organizational structure is of crucial importance. Thus, the business to become more sustainable implements many initiatives to promote eco-behaviors among employees [44].

According to the Resource-Based View (RBV) theory [45], green image is a competitive advantage not only on the external (customers), but also on the internal (employees) market. For example, Utomo *et al.* [10] confirmed that doing green business and creating Green Corporate Image, the value of a company is growing. What is important, improvement of green image leads to positive effect on the general image of the company [1][46].

The successful Green Corporate Image needs to be authentic. Seemingly green activities (called also greenwashing or corporate hypocrisy) will be quickly – or at least finally – identified by the audience. However, the empirical results and increasing numbers of media scandals, may indicate that the growing popularity of green attitudes has been leading to more greenwashing practices [20][47].

3 Green employee attitudes

According to the planned behavior model of Ajzen [48], attitudes are mandatory precursors of any behavioral intentions; the more positive (or negative) attitude, the stronger (weaker) the intention to perform the behavior [29]. They can be understood as evaluation of objects, actions, issues, or people [49] and are determined by knowledge, awareness and beliefs [29]. Attitudes can be divided into positive or negative, weak or strong, explicit or implicit [50]. They are abstract and cannot be observed; visible results of an attitudes are most often behaviors, feelings and expressed opinions [37][38][51]. This factor is of basic importance in terms of empirical research, and the choice of research tools, and finally the choice of econometric methods for data analysis.

Green attitudes are understood as reasonable beliefs (cognitive aspect), feelings (affective aspect) and intentions to behavior (behavioral aspect) with respect to making the surroundings more environmental-friendly [52]. Milfont et al. defined green attitudes as “psychological tendency that is expressed by evaluating the natural environment with some degree of favor or disfavor” [53, p. 264]. They can be also called as pro-environmental, ecological, environmental-friendly, or environmentally sustainable attitudes [50].

Green attitudes can be divided into general (towards environment and environmental problems, such as pollution, carbon dioxide emission or global warming) and specific (towards pro-environmental behaviors, e.g.: recycling, double-printing, energy-saving) [54]. Strong green attitudes of employees mean that environment and pro-environmental concern of their employer is important for individuals.

According to Opatha & Arulrajah [55], environment-concerned employees are preservationists, conservationists, and non-polluters and makers. As defined by the authors: Conservationist is careful the way of using the natural environment, in order to allow the environment to last as long as possible; the main objective is to use the natural environment at the minimum level, so that to enable the future generations utilize it also. The non-polluter tends to minimize contaminating the water, air, atmosphere, etc. through unpleasant and poisonous substances and waste. The non-polluter also tends to be a guardian against behaviors and outcomes that can endanger the environment. The maker is engaged in creating gardens and

looking-like natural places with plants, trees and grass [55, p. 103]. All these attitudes can be effectively used by the companies in building their human resource management strategies and creating incentives for higher work engagement of employees.

4 Work engagement

Engagement of employees is a positive, fulfilling psychological state related to work and characterized by positive vigor, absorption and dedication [56][57]. Vigor refers to enthusiasm, energy and determination at work. Dedication are challenging feelings experienced by employees, complemented by pride, passion and support. Absorption means being completely focused on the tasks and experiencing so called flow-effect (the time is passing quickly and it is difficult to separate oneself from work) [56].

Work engagement is not focused on any particular object, event, individual or behavior [57]. Work engagement can be understood as transforming the potential of employees into performance and business achievements [58]. It is a certain mental state with cognitive and affective components [59]. Last, but not least, the level of an employee work engagement is a result of three types of determinants [60]: a) personal – people interest, values and needs, b) physical – characteristics that differ the organization from others and arouse interest (including Green Corporate Image), c) situational – something that temporarily and significantly increases work interest. Thus, engaged individuals express themselves both physically, cognitively, and emotionally [61]. This state is not stable, but also not momentary [62].

There are plenty of direct and indirect advantages for a company having employees who are characterized by greater engagement. Such people make an extra effort to achieve the company's goals; they are more enthusiastic, satisfied, loyal, proactive, productive and creative. Engaged workers are characterized by higher job performance, less absenteeism; they talk more positively about the company and have strong relationship with their supervisors, they also want to stay in the company [63]. Thus, such engaged staff is a crucial asset in organizations [18][47].

5 Methods

5.1 Data and model

As stated in the introduction, the online survey was used to verify the research hypotheses. The data was collected in August 2023 among 1167 employees from

Great Britain. The sample was non-random; however, it was big enough and statistically diversified to be able to provide information with valuable empirical inside. Table 1 presents the demographic characteristic of survey participants.

Table 1. Demographic structure of the sample

Age // Length of service	Mean	41.57 //	Sex	F	79.2% (924 employees)
	MIN	20 //		M	20.3% (237)
	MAX	67 //		Missing	0.5% (6)
	SD	10.145 //	Household type	Live alone	10.7% (125)
	Missing	29 //		Shared house with no children (e.g., friends)	22.0% (257)
Education	Higher	91.9% (1072)		Couple or single adult with children under 16 years	42.8% (500)
	Secondary	7.2% (84)		Couple or single adult with children 16 years and over	23.6% (275)
	Professional	0.2% (2)		Missing	0.9% (10)
	Vocational	0.1% (1)	Employment sector	Private	94.3% (1101)
	Missing	0.7% (8)		Public	5.4% (63)
				Missing	0.3% (3)

Source: Own research

To achieve the goals, the SEM model was applied, which enabled to verify four research hypotheses (see the theoretical research model in Figure 1):

Hypothesis [H1] There is a significant and positive direct impact of Green Image (GI) on Work engagement (WE)

Hypothesis [H1.1] The impact is moderated by the demographic characteristic of employees, including: [H1.1a] sex, [H1.1b] age, [H1.1c], education, [H1.1d] length of service, [H1.1e] employment sector and [H1.1f] household structure.

Hypothesis [H2] There is a significant and positive indirect impact of GI on WE (Green Attitudes (GA) as a mediator)

Hypothesis [H2.1] The impact is moderated by the demographic characteristic of employees, including: [H2.1a] sex, [H2.1b] age, [H2.1c], education, [H2.1d] length of service, [H2.1e] employment sector, and [H2.1f] household structure.

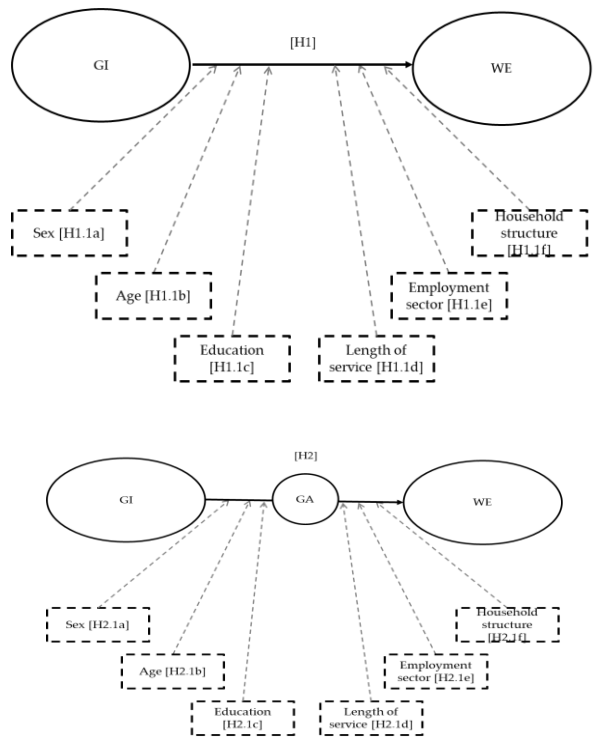


Figure 1. The visualization of the research hypotheses

5.2 Measurement scales

Corporate green image was measured using a modified version of 4-items scale by Çavuşoğlu et al. [29] (1. I think my company supports sustainable development; 2. I think the green image of my company is high; 3. I think my company is excellent to practice green behaviors; 4. I give positive feedback to people about the pro-environment-ality of my company).

To measure green work attitudes, there was used 24-items Environmental Attitudes Inventory (EAI) that can be divided into two dimensions: utilization and preservation [53]. Before analyzing the data, 12 items that measured the anti-environmental attitudes were reversed.

Work engagement was measured using a short 9-items version of Utrecht Work Engagement Scale by Schaufeli et al. [64] (in comparison to the original scale, only the following questions were used: 1, 4, 5-10, 11, 14.

6 Results and Discussion

6.1 Reliability values

The confirmatory factor analysis made it possible to select variables describing WE, GA, and GI that provided the best reliability statistics. In the next step SEM model was estimated. Table 2 presents the factors with a list of observable variables shaping them.

Table 2. Factors with measurable variables and Alpha-Cronbach statistics

Factor	Measurable variables	Alpha-Cronbach statistics	AVE
WE	WE2, WE3, WE4, WE5, WE6	0.923	0.717
GA	GA5, GA6, GA15, GA16	0.727	0.531
GI	GI1, GI2, GI3, GI4	0.876	0.662

Source: Own research

For all factors, Cronbach's alpha statistics were higher than 0.7; it means a very good reliability of the scales used. In addition, the correct construction of the factors was confirmed by calculating the AVE (average obtained variance). For all factors, the value of this indicator was above 0.5, so it met the Fornel-Lacker criterion. It means that convergent validity and internal consistency of invoices have been achieved.

HTMT ratio was also calculated. The results are presented in Table 3. All values are less than critical value 0.9, so there are no issues with discriminant validity between factors [65].

Table 3. HTMT Ratio calculated for latent variables

	WE	GI
GA	0.257	0.271
WE		0.460

Source: Own research

6.2 Hypothesis testing

As already stated, the SEM model was estimated to verify the impact of Green Corporate Image (GI) on work engagement (WE). It was assumed that there is not only the direct impact of GI on WE, but also indirect, through green attitudes of employees (GA). The maximum likelihood method was applied in the estimation process. A significance factor of 0.05 was assumed. The theoretical model is presented in Figure 2.



Figure 2. Visualization of theoretical model

Table 4 contains the results of the maximum likelihood estimation of the external SEM model (factor analysis), Table 5 – the results of estimation of the internal model (regression analysis), and Table 6 – measures of the degree of model fit to the empirical data.

Table 4. Estimation of the external SEM model

<i>Relationship</i>	<i>Parameter</i>	<i>Parameter evaluation</i>	<i>P-value</i>
$WE \leftarrow WE2$	$\alpha_1\alpha_1$	0.858	0.000
$WE \leftarrow WE3$	$\alpha_2\alpha_2$	0.915	0.000
$WE \leftarrow WE4$	$\alpha_3\alpha_3$	0.882	0.000
$WE \leftarrow WE5$	$\alpha_4\alpha_4$	0.867	0.000
$WE \leftarrow WE6$	$\alpha_5\alpha_5$	0.695	
$GA \leftarrow GA5$	$\alpha_6\alpha_6$	0.842	
$GA \leftarrow GA6$	$\alpha_7\alpha_7$	0.824	0.000
$GA \leftarrow GA15$	$\alpha_8\alpha_8$	0.600	0.000
$GA \leftarrow GA16$	$\alpha_9\alpha_9$	0.613	0.000
$GI \leftarrow GI1$	$\alpha_{10}\alpha_{10}$	0.876	
$GI \leftarrow GI2$	$\alpha_{11}\alpha_{11}$	0.940	0.000
$GI \leftarrow GI3$	$\alpha_{12}\alpha_{12}$	0.731	0.000
$GI \leftarrow GI4$	$\alpha_{13}\alpha_{13}$	0.681	0.000

Source: Own research

Table 5. Estimation of the internal SEM model

Relationship	Parameter	Parameter evaluation	Standardized error	Assesment of standardized parameters	P-value
$GI \rightarrow GA$	$\beta_1\beta_1$	0.169	0.033	0.188	0.000
$GI \rightarrow WE$	$\beta_2\beta_2$	0.443	0.035	0.408	0.000
$GA \rightarrow WE$	$\beta_3\beta_3$	0.139	0.041	0.116	0.000

Source: Own research

Table 6. Measures of model fit to empirical data

Model	IFI	CFI	RMSEA	CMIN/DF
Estimated	0.935	0.935	0.078	9.975
Saturated	1	1		
Independent	0	0	0.284	95.305

Source: Own research

The results for the external model (Table 4) indicate that all factor loadings are statistically significant. When interpreting the results (Table 5), it should be noted that the green image of the company has a statistically significant impact on both the green attitudes of employees and their work engagement. The more pro-ecological image of the company, the greener the employees' attitudes and the greater their WE. Besides, there is a significant impact of pro-ecological attitudes of employees on work engagement. This means that GI not only affects WE directly, but also indirectly through their green attitudes. According to data presented in Table 6, the IFI index is 0.935, while the RMSEA is 0.078. Thus, the model is very well suited to the empirical data.

In the next part, the results of SEM model estimation for subgroups of respondents distinguished by their sex, age, length of service and family structure are presented. The subgroups by age and length of service were selected on the basis of the median value (40 years for age, 17 years for length of service). A comparative analysis by education and employment sector was omitted due to the fact that more than 90% of respondents had higher education and worked in the private sector (Table 7).

Table 7. Internal SEM model estimation for subgroups by the respondents' sex

Relationship	Parameter	Women		Men		T-statistics
		Evaluation of standardized parameters	P-value	Evaluation of standardized parameters	P-value	
GI → GA	$\beta_1\beta_1$	0.183	0.000	0.167	0.031	-0.254
GI → WE	$\beta_2\beta_2$	0.385	0.000	0.485	0.000	-1.778
GA → WE	$\beta_3\beta_3$	0.104	0.009	0.098	0.158	0.198
Measures of model fit		IFI = 0.939 RMSEA = 0.075		IFI = 0.913 RMSEA = 0.092		

Source: Own research

In the subgroup of men, the influence of GA on WE turned out to be statistically insignificant, despite a small difference in the value of the parameter itself between both subgroups. In all cases, the differences in the parameter values turned out to be statistically insignificant.

Table 8. Internal SEM model estimation for subgroups by the respondents' age

Relationship	Parameter	Up to 40 years		Over 40 years		T-statistics
		Evaluation of standardized parameters	P-value	Evaluation of standardized parameters	P-value	
GI → GA	$\beta_1\beta_1$	0.148	0.005	0.105	0.036	-0.610
GI → WE	$\beta_2\beta_2$	0.377	0.000	0.440	0.000	-1.528
GA → WE	$\beta_3\beta_3$	0.120	0.015	0.073	0.108	1.491
Measures of model fit		IFI = 0.938 RMSEA = 0.074		IFI = 0.946 RMSEA = 0.072		

Source: Own research

In the subgroup of older employees (Table 8), the impact of green attitudes on work engagement turned out to be statistically insignificant. In all cases, the differences in parameter values were statistically insignificant.

Table 9. Internal SEM model estimation for subgroups by the respondents' length of service

Relationship		Up to 17 years		Over 17 years		T-statistics
	Parameter	Evaluation of standardized parameters	P-value	Evaluation of standardized parameters	P-value	
GI → GA	$\beta_1\beta_1$	0.263	0.000	0.076	0.145	2.794
GI → WE	$\beta_2\beta_2$	0.359	0.000	0.436	0.000	-1.584
GA → WE	$\beta_3\beta_3$	0.150	0.003	0.069	0.144	0.915
Measures of model fit		IFI = 0.909 RMSEA = 0.093		IFI = 0.948 RMSEA = 0.070		

Source: Own research

In the subgroup of employees employed over 17 years (Table 9), the impact of Green Corporate Image on green attitudes of employees and the impact of GA on work engagement turned out to be statistically insignificant. This means that in the case of more experienced employees, the effect of mediation of GA on the impact of GI on WE has not been confirmed.

Table 10. Internal SEM model estimation for subgroups by the respondents' family structure

Relationship		Without children		With children		T-statistics
	Parameter	Evaluation of standardized parameters	P-value	Evaluation of standardized parameters	P-value	
GI → GA	$\beta_1\beta_1$	0.247	0.000	0.131	0.003	-0.075
GI → WE	$\beta_2\beta_2$	0.393	0.000	0.403	0.000	-0.292
GA → WE	$\beta_3\beta_3$	0.167	0.007	0.136	0.000	1.456
Measures of model fit		IFI = 0.937 RMSEA = 0.076		IFI = 0.940 RMSEA = 0.075		

Source: Own research

All differences in the values of the estimated parameters between subgroups of employees distinguished on the basis of their family structure turned out to be statistically insignificant.

6.3 Relation to Previous Studies, main value added and Recommendations for Business Practice

In the article, the significant impact of the Green Corporate Image on work engagement with mediating role of green employee attitudes was confirmed. These results correspond to the research results of other authors.

Even though there are no other studies available that directly focus on the impact of Green Corporate Image on work engagement with the mediating role of pro-environmental attitudes of employees, many potential benefits of Green Corporate

Image may still be identified, including higher work engagement (not only in green issues) and job performance [1][17].

For example, similarity to the current results, Lita et al. [14] or Çavuşoğlu et al. [29] confirmed the influence of green attitudes on green image of a company or the impact of environmental responsibility [17]. Singh & Pandey [30] and Alshaabani et al. [1] confirmed the impact of green HRM practices on employee commitment and employee green engagement. Besides, Singh & Pandey [30] confirmed the significant impact of green HRM practices on each component of work engagement (absorption, dedication, vigor).

From a managerial perspective, the findings suggest that investments in a credible Green Corporate Image should be treated as a strategic human resource tool rather than solely a marketing or compliance activity. Companies should systematically integrate environmental values into their core operations, internal communication, and leadership practices to ensure that the green image is authentic and visible to employees. As green employee attitudes significantly mediate the relationship between green image and work engagement, managers are advised to support pro-environmental attitudes through training, participation programs, and employee involvement in sustainability initiatives.

Importantly, the largely insignificant role of demographic moderators implies that such practices can be applied broadly across the workforce, without the need for extensive segmentation. Firms should also avoid symbolic or superficial actions that may be perceived as greenwashing, as employee behavior directly influences corporate credibility. Overall, aligning sustainability strategy with human resource management can enhance work engagement, strengthen organizational commitment, and create a sustainable competitive advantage grounded in employee motivation and shared values.

7 Conclusions

The main objective of the current research was to describe how Green Corporate Image influences work engagement and how this relationship is mediated by the green employee attitudes. Additionally, the research enabled to show whether these relationships are moderated by demographic characteristic of individuals. The primary data was obtained for Great Britain in 2023 for 1167 professionally active people and it was processed with application of SEM approach. The presented results confirmed that there is significant impact of a Green Corporate Image on work engagement, with the mediating role of green employee attitudes. However, the demographic characteristics of employees were mostly not significant moderators of the analyzed relationships.

This study has some significant limitations that need to be highlighted. The primary data was collected only in a single highly developed country and on a non-random sample, thus, it cannot be generalized. There was also an over-representation of women and higher-educated respondents, which may significantly affect the obtained results. Therefore, any future study should be based on more representative sample and a more international comparative approach, is needed.

In addition, the data was collected at one point of time, thus it ignores the contextual impact of other variables. The future study should be longitudinal to better predict causal relationships between determinants and results.

In the survey, a self-measuring scale was used, thus, there is a possibility of common method bias in the results. Future data should be collected in a more objective manner (e.g., measurement by the supervisors or using objective indicators).

Last but not least, the items on the scales have important constraints (they are controversial or at least discussive, e.g., overpopulation). All these factors, must be taken into account for any form of managerial applications of the obtained results. However, based on the current research, it is obvious that the companies, at least the ones operating on the developed, thus environmentally aware markets, to improve the work engagement of employees, should improve its Green Corporate Image. This relationship is especially significant in the case of employees with strong green attitudes, which have become an increasingly common factor.

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