

Beyond Ethics: Exploring the Indirect Effect of Subordinate Extraversion and Agreeableness on Sustainable Performance and Moderating Role of Psychological Diversity Climate

Altat Akbar*

University of Aveiro, Aveiro, Portugal

Abstract

Aim: Sustainable performance may be indirectly impacted by an ethical leadership style. In addition, a number of other factors may influence sustainable performance. This study is to explore the relationship between ethical leadership and sustainable performance, with the moderating influence of psychological diversity climate and the mediating function of agreeableness and subordinate extroversion.

Methodology: The SMEs in Portugal This study focused on the Lisbon and Porto regions, and information was gathered from 310 middle and senior managers employed by SMEs. These answers were examined through the use of moment structure analysis.

Findings: The findings showed that subordinate extroversion and agreeableness have a major mediating effect between sustainable performance and ethical leadership. Furthermore, the association between subordinate extroversion and agreeableness and sustainable performance is strongly moderated by psychological diversity climate.

Implications/Novel Contribution: Middle and senior managers of Portuguese SMEs in the Lisbon and Porto regions who want to improve sustainable performance might use the study's findings as a reference. They can naturally reach the highest level of sustainability if they emphasise agreeableness and extroversion and adhere to the ethical leadership strategy. As far as the authors are aware, this study is the first to examine ethical leadership within the framework of Portuguese SMEs. Its impact on subordinate extroversion, agreeableness, and eventually sustained performance is highlighted in the Lisbon and Porto regions. It also investigated at how the psychological diversity climate affected ethical leadership and sustainable performance.

Keywords: Ethical Leadership, Sustainable Performance, Subordinate Extroversion, Agreeableness, Psychological Diversity Climate, Social Rank Theory

Received: 26 August 2024 / **Accepted:** 14 October 2024 / **Published:** 23 December 2024

INTRODUCTION

In today's modern, technological world, success depends on maintaining performance, such as incorporating financial, social, and environmental goals into crucial business practices to maximise value. More efficient expertise management solutions were required due to the significant gap between employees' capabilities and the ever-changing demands of their professions caused by Industry 4.0's rapid pace of technological innovation (Moran, 2023). Because it offers chances for long-term expansion and advancement, profitability, and competitive advantages, sustainability has emerged as a top priority for business organisations (Khanam et al., 2023). However, creating and maintaining sustainable business practices can be difficult since it calls for widespread agreement and teamwork from all parties involved (Boeske, 2023; Dey et al., 2022). Top-level managers can play crucial roles among various stakeholders since they are in charge of creating suitable plans, obtaining and applying the resources required, and directing staff members in the right way to meet long-term goals, objectives, and performance (Shoaib et al., 2022).

The ever-changing ability of the company to achieve superior performance in financial and societal aspects can be reinforced by ethical leadership, which can also foster voluntary environmental behaviour, ethical values, and norms as well as mutual learning (Khanam et al., 2023). Employees, who are the organizations' front-line troops,

*Corresponding author: Altat Akbar

†Email: altatfakbar@ua.pt

are also crucial in establishing and carrying out the ideas and values of leaders as well as the goals and objectives of the company. They have the power to significantly impact the performance of the company. Nevertheless, without the appropriate organisational atmosphere and resources, leaders and employees could not implement or accomplish those aims and targets, regardless of what they believe and value. To attain the intended sustainable performance of the organisations, it is therefore essential to look into the combined influence of leadership, employee values, and organisational climate. This study examines how managers' ethical leadership affects the long-term success of business organisations, taking into account the role managers play in attaining sustainable performance.

Extraversion was found to be the most reliable predictor of leaders' success and emergence (Krautter et al., 2023; Ohana et al., 2023). Although there is empirical support for this so-called extraverted subordinates (Liegl & Furtner, 2023), the majority of the prior study concentrated on the connection between a subordinates extraversion and their leadership style and behaviours. Ohana et al. (2023) seek a more direct examination of how leader behaviours influence followers' perceptions, and then we concentrate on the role of active and effective leadership practices. This study may also demonstrate that acting extraverted, even when it goes against one's preferred behaviour, can have comparable effects on leader emergence to trait extraversion.

According to Fosse et al. (2024), agreeableness is one of the Big Five model of personality traits. It is the inclination to be warm, cooperative, empathetic, altruistic, and trusting. Personality qualities influence employee outcomes in the workplace, such as sustainable performance, job satisfaction, and career success, according to a number of meta-analyses conducted over the years (Blake et al., 2022; Chifokoyo, 2023; Chiotis & Michaelides, 2022; Wilmot & Ones, 2022). All of these meta-analytic assessments, however, have found a weak correlation between agreeableness and sustainable performance. The weak association could be explained by the fact that agreeable people function better in particular situations than in general ones. For example, employment requiring social skills or teamwork may benefit more from agreeableness (Nandkeolyar et al., 2022).

Our study main contribution is to investigate and draw attention to elements that pertain to the function of ethical leadership. According to Fosse et al. (2024), ethical leadership is described as "the expression of ethical behaviour through individual behaviours and interpersonal interactions, and the encouragement of such conduct to leaders through interaction in two ways, reinforcement, and decision-making." We prioritise ethical leadership over other leadership philosophies for two reasons. First and foremost, our goal is to promote scholarship and moral leadership for employees, which are widely acknowledged as being crucial to the social and economic advancement for employees. Second, we're not saying that ethical leadership has a special effect on workers' sustainable performance; rather, we're saying that the psychological diversity of the ethical leadership environment can help us understand why ethical leadership is essential to workers. Additionally, we expand on the work that aims to incorporate the importance of race into research on ethical leadership. We address the extraversion and agreeableness linked to ethical leadership and sustainable performance, while earlier study has examined whether racial differences exist in ethical leadership ratings.

In particular, our model is explained by social rank theory. Therefore, in order to assess the possibility and urgency of a true status loss, supervisors would take into account more data, especially the personal traits of these subordinates. Since personal characteristics reveal psychological patterns beyond one's qualifications and capabilities and directly affect the "prevailing quality of social interaction", the interpersonal circle suggests that subordinates' interpersonal traits provide supervisors with vital information cues. We hypothesize that the agreeableness and extraversion of subordinates may have an impact on their sustainable performance. The theory behind our conceptual model (Fig. 1) and hypotheses is described in depth in the next section. After presenting the findings of empirical investigations, we go over these conclusions and how they relate to theory and practice.

THEORY AND HYPOTHESES DEVELOPMENT

Social Rank Theory

According to social rank theory, which is viewed from an evolutionary perspective, a person's standing within a community dictates their priority for accessing resources, motivating them to work towards and preserve their position (Mahadevan et al., 2023b). According to Mahadevan et al. (2023a) status in the workplace is a person's visibility, influence, and respect from coworkers. One's rank and hierarchical position within an organisation are frequently, but not always, linked to it (Beasley et al., 2012). Numerous benefits could come with higher status,

including larger material benefits, more support from others (Pugh et al., 2008), enhanced autonomy and control at work (Mahadevan et al., 2023a), and even improved leadership styles (Brown et al., 2005). Status is valuable, even if people may desire it to varying degrees, especially for those in managerial positions like supervisors.

Higher status individuals continuously look for status threats and work to prevent their status from being lost, according to social rank theory (Mahadevan et al., 2023a). The dynamic and fluctuating nature of status is the reason for this attentiveness (Mahadevan et al., 2023a). Higher status enhancement capability allows people to change, widen, or even decrease the status gap between themselves and other people (Beasley et al., 2012). However, those who have high status may not benefit from such dynamics of status because they fear losing their status and the benefits that come with it. According to social rank theory, those with high status will attempt to limit access to resources by displaying down-hierarchy hostility in retaliation when they feel threatened by their status (Beasley et al., 2012; Mahadevan et al., 2023a). When a subordinate has the opportunity to improve their status, supervisors are more likely to keep a close eye on them and take drastic measures to keep status loss from happening. Previous studies have demonstrated the substantial influence of ethical leadership on sustainable performance (Mahadevan et al., 2023a). We propose that ethical leaders are more inclined to participate in psychological diversity climates when they observe their subordinates' extraversion and agreeableness.

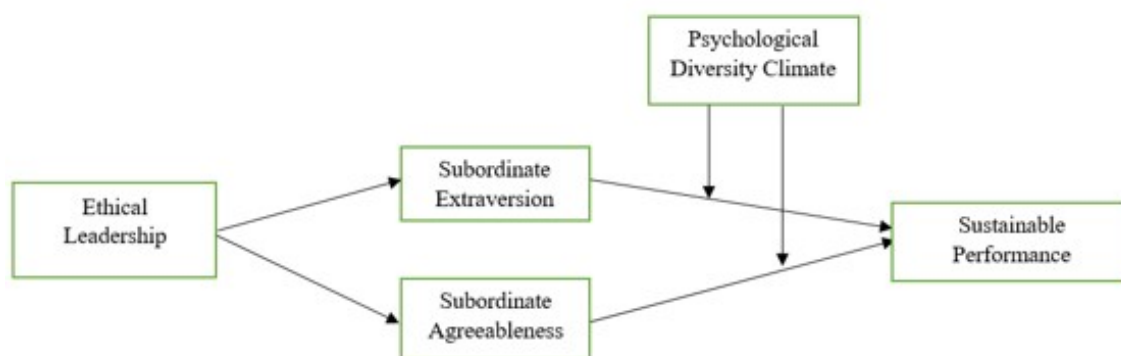


Figure 1. Conceptual model

Ethical Leadership, Subordinate Extraversion and Agreeableness

Because transformational leaders encourage their followers to put aside their own interests and cooperate for a common goal, (Brown et al., 2005) suggested that transformational leadership is ethical leadership. Nonetheless, this groundbreaking work generated a discussion on the morality of charismatic and transformational leadership, with academics expressing opposing views. According to Dey et al. (2022), the most widely accepted definition of ethical leadership is the demonstration of appropriate behaviour through one's own actions and interpersonal interactions, as well as the encouragement of such behaviour in followers through decision-making, two-way communication, and support. Organisational justice and moral attentiveness have a good impact on employees' ethical behaviour, which is a broader phrase based on the values, standards, and principles that direct an individual's behaviour (Alkhadra et al., 2023). It's critical to understand the ethical conduct of employers in addition to that of employees. By fostering strong ethical cultures inside their operational units and practicing ethical leadership themselves, leaders may help members of organisations transform their expectations and presumptions into ethical behaviour (Hameed et al., 2023). As the project progresses, it is imperative to address the shift in leadership styles (Khanam et al., 2023).

According to Moran (2023), personality traits like extraversion can therefore strengthen or mitigate the impact of justice on attitudes and actions. Extraverted people are gregarious, vivacious, upbeat, and aggressive. According to Kundi et al. (2024), extraversion is a consistent personal trait that influences a wide variety of behaviours. It is arguably the most important component of the Big Five model of personality. Crucially, extraversion is probably most relevant to team environments and intra-team operations for the purposes of this study (Ohana et al., 2023). Extraversion is believed to be relevant to the operation of their team's social processes since extraverts prefer social contacts. Here, we contend that extraversion may have an impact on how strongly

team-member exchange mediates the relationship between coworkers' interpersonal justice and team citizenship behaviours (LiegI & Furtner, 2023). First, as a social interaction notion, the growth of team-member exchange need to be reliant on how well workers communicate with one another. Studies have indicated that individuals with high extraversion are looking for pleasant work settings and opportunities for social engagement (Krautter et al., 2023). Being gregarious, forceful, active or energetic, and receptive to new experiences are all signs of extraversion. When engaging with others, whether at work or in their daily lives, people with high extraversion tend to display positive emotions (Cahyono & Widarjo, 2022).

While the autocratic style of leadership is thought to lack ethical behaviour, the democratic and participative approaches are seen as ethical culture. According to a recent study by Fosse et al. (2024), people who participate in interpersonal facilitation and other communal behaviours are seen as being very agreeable and extraverted. These authors conclude that perceived agreeableness and an employee's gender interact to predict the emergence of leadership, and they urge more research to examine the impact of gender on performance results (Chifokoyo, 2023; Nandkeolyar et al., 2022; Wang et al., 2022; Wilmot & Ones, 2022). Therefore, agreeableness may have an impact on how anger is actually expressed. First, being agreeable makes one more likely to act in a way that other people find pleasant. Research indicates that being kind in a leadership post is negatively connected with deviant and counterproductive behaviours (Chifokoyo, 2023) and positively associated with leadership emergence (Wilmot & Ones, 2022). According to Wang et al. (2022), people with high agreeableness are also better at managing unpleasant emotions like rage, which lessens their negative behavioural reaction to them. Extraversion, agreeableness, and ethical leadership have all been linked in previous research (Khanam et al., 2023; Krautter et al., 2023). While those with low extraversion frequently feel uncertain and even stressed out under abusive leaders, those with high extraversion are more likely to be resistant to and tolerate harsh employers (Hameed et al., 2023). As a result, the following hypothesis is developed:

H1: Ethical leadership has direct impact on subordinate extraversion.

H2: Ethical leadership has direct impact on subordinate agreeableness.

The Mediation Role of Subordinate Extraversion and Agreeableness

Based on the social rank theory, Kundi et al. (2024) have explained how subordinated may react to ethical leaders because they see it as a threat to their standing. We examine the factors that increase or decrease the likelihood of this effect in this section. According to Moran (2023) state that the psychology of threat, people perceive threats more strongly when there is a greater chance that harm will occur. Although supervisors acknowledge that overqualified employees may eventually rise in position, they must determine the likelihood that these employees will use their skills to further their careers. The inclination and desire of subordinates to question their superiors and seek status varies (Cahyono & Widarjo, 2022). According to Liegl and Furtner (2023), these variations result from people's interpersonal characteristics, which show broad interaction tendencies that go beyond qualifications.

Ohana et al. (2023) anticipate that ethical leadership with low extraversion may perceive their superiors as less of a status threat than those with high extraversion. The urge to "get ahead," which includes pursuing status, power, and resource management, is predominantly embodied by extraversion (Cahyono & Widarjo, 2022; Krautter et al., 2023). In their quest for promotion, workers with high extraversion frequently aim to attract attention from others and flaunt their abilities and accomplishments. Therefore, extraverted, ethical leadership may be more likely to transmit signals that elevate their rank and publicly display their excess talents. Supervisors may see a greater danger to their status in the future as a result of these behaviours, which can raise informal group status. Conversely, ethical leadership with low extraversion would not feel the same need to demonstrate their skills and, as a result, might be less inclined to jeopardize the position of their superiors. According to Blake et al. (2022), agreeableness is a person's level of trustworthiness, cooperation, tolerance, compassion, and altruism. Building and sustaining healthy relationships with others is the major focus of this personality feature (Chiotis & Michaelides, 2022). People with high agreeableness are less likely to act aggressively (Nandkeolyar et al., 2022) and are more likely to be cooperative and considerate of others (Wang et al., 2022).

Furthermore, corporate organisations are now being provided with resources to utilize natural resources as well as a means of preserving their relationships with the environment and their employees. Thus, in order to

achieve sustainable development, businesses must include social, economic, and environmental goals into their operations without endangering the resources that future generations will consume (Khanam et al., 2023). A competitive edge in corporate organisations is another advantage of sustainability (Alkhadra et al., 2023; Hameed et al., 2023). Some studies have investigated into the connection between sustainable performance and the concepts of ethical leadership (Dey et al., 2022; Khaw et al., 2022; Nandkeolyar et al., 2022; Shoaib et al., 2022) investigated at how to take into consideration both the moderating impact of environmental dynamics on the relationship between ethical leadership and organisational sustainability as well as the direct influence of ethical leadership on the sustainability of firm.

Therefore, in order to appropriately assess the possibility and urgency of actual status loss, supervisors are likely to concentrate on the interpersonal characteristics of their subordinates. The interpersonal characteristics along two dimensions: agreeableness and extraversion. While agreeableness includes traits like trust, cooperation, tolerance, caring, and altruism, extraversion includes traits like assertiveness, activity, dominance, and talkativeness (Nandkeolyar et al., 2022). These two characteristics impact people's goals and mould the style and caliber of their social relationships (Chifokoyo, 2023; Krautter et al., 2023; Liegl & Furtner, 2023; Wilmot & Ones, 2022). Thus, we hypothesize that the degree to which ethical leadership can be influenced by the extraversion and agreeableness of the subordinates, which may result in different degrees of sustainable performance.

H3: Subordinate extraversion has mediates the impact between ethical leadership and sustainable performance.

H4: Subordinate agreeableness has mediates the impact between ethical leadership and sustainable performance.

The Moderating Role of Psychological Diversity Climate

According to Fosse et al. (2024), the term "psychological diversity climate" describes how staff members feel about how much their company promotes equity and inclusion in both official and informal management procedures and organisational rules. The fairness and inclusion aspects of diversity climate are distinguished in this study in accordance with the conceptualization of diversity climate by Mahadevan et al. (2023a). While the inclusion dimension of diversity climate focusses on the proactive integration of all employees, regardless of demographic identities, into organisational life, the fairness dimension of diversity climate usually relates to how subordinate extraversion, agreeableness effects on sustainable performance (Liegl & Furtner, 2023). Krautter et al. (2023), psychological diversity climate as a separate concept from diversity beliefs, which express how much people respect and feel at ease with variety (Wang et al., 2022; Wilmot & Ones, 2022). The focus of diversity climate is obscured when opinions about the workplace and individual diversity views are combined into a single construct. Both the person level (psychological diversity climate) and the group/organization level (workgroup diversity climate) can be operationalized as diversity climates. Psychological diversity climate at the individual level refers to a personal evaluation of how well the company upholds an equitable and welcoming workplace (Ji et al., 2021). Thus, Krautter et al. (2023) aggregate individual diversity climate impressions to the group level in order to execute diversity climate.

Sustainability reconciles social welfare, ecological preservation, and economic growth. From a business organization's point of view, developing and sustaining sustainable business operations can be challenging since it requires the cooperation of all stakeholders and widespread agreement (Boeske, 2023; Dey et al., 2022). Responsible leaders can play a critical role in attaining sustainable performance in terms of performance, goals, and objectives. This is due to the fact that these managers and leaders are in charge of coming up with sensible plans, obtaining and allocating the suitable resources, and steering their employees in the proper direction. Sustainability won't be implemented until the organisation has a responsible leader who supports it (Khanam et al., 2023; Moran, 2023). Strong relationships with subordinates are more likely to be fostered by agreeableness, and this can improve sustainable performance. This is due to the fact that supportive subordinates can offer assistance, which has been repeatedly demonstrated to improve sustainable performance (Khaw et al., 2022; Shoaib et al., 2022). Prosocial behaviour, or the propensity to assist, give, console, and care for others Krautter et al. (2023), is also closely associated with agreeableness (Chiotis & Michaelides, 2022). Therefore, it makes sense that those who are amiable would desire to actively affect other people's well-being.

Therefore, Krautter et al. (2023) suggest that their psychological diversity climate should be positively impacted by their subordinates' agreeableness and extraversion. Wang et al. (2022) argue that the main behaviours linked to ethical leadership are acting morally, acting fairly, and actively regulating morality in the workplace. When displayed, these actions also convey a value for inclusiveness and diversity. This association should also exist, according to empirical data. For instance, studies have shown that positive leadership styles, such as genuine and courteous leadership, have a favourable effect on how inclusive people feel. Additionally, researchers have shown that employees' perceptions of fairness are favourably correlated with ethical leadership (Beasley et al., 2012; Ji et al., 2021). Social rank theory to describe how ethical leadership positively moderates by psychological diversity atmosphere, taking into consideration the identity and cultural ramifications of ethical leadership for workers. Social rank theory states that when two people possess different quantities of information, one of them will signal the other in an attempt to close the gap (Hameed et al., 2023; Khanam et al., 2023). Thus, we postulate that, through the moderating influence of psychological variety atmosphere, there is a positive correlation between subordinate extraversion and agreeableness and their impact on sustainable performance.

H5: Psychological diversity climate has moderates the relationship among subordinate extraversion and sustainable performance.

H6: Psychological diversity climate has moderates the relationship among subordinate agreeableness and sustainable performance.

METHOD

Sample and Procedure

Middle and senior managers employed by Portuguese SMEs made up the sample. This makes it possible to reach 500 people interested in filling out surveys from a range of professions in the Lisbon and Porto regions. Participants had to meet pre-screening requirements, which included being over eighteen, having at least one year of organisational tenure, and currently working for SMEs. Following that, 370 employees and their immediate supervisor received the questionnaires via email along with information on the research's goals and a link to the electronic survey. All participants were also assured in this email that their comments would remain anonymous and confidential, that their participation was optional, and that they could withdraw from the survey at any moment.

Everyone who participated in the survey, which was a part of a larger research with 330 questions altogether (evaluating demographic variables), got 5 EURO after completing the online form. The final sample had 310 matched dyads, representing an 83% response rate, after missing data and unmatched replies were eliminated. Of the 180 employees that responded, 42% were female and 58% were male. The average age of the staff was thirty-six. Among the responders, 24% have completed college, 23% have earned a bachelor's degree, and 53% have at least a master's degree. The average organisational tenure is seven years. Middle level managers make up 63% of the workforce, while senior managers make up 37%.

Measures

Participants' degree of consensus with each item was determined using a five-point Likert-type scale for all measures ("1 = strongly disagree and 5 = strongly agree").

Ethical Leadership

We evaluated Brown et al. (2005), five ethical leadership items. SMEs modified the things to appeal to the employees' attention. "Defines success not just by results but also the way that they are obtained" is an example item. This scale's Cronbach's alpha was 0.79.

Subordinate Extraversion

We used the four-item scale created by Donnellan et al. (2006) to evaluate subordinate extraversion. "Talk to a lot of different people at parties" is an example item. This scale's Cronbach's alpha was 0.91.

Subordinate Agreeableness

The four items developed by Donnellan et al. (2006) were used to gauge subordinate agreeableness. "I'm not interested in other people's problems" is an example item. This scale's Cronbach's alpha was 0.85.

Psychological Diversity Climate

Diversity in Psychology Four items from Pugh et al. (2008) were evaluated. The item include "I think my immediate manager/supervisor manages people from different backgrounds well, whether it be age, sex, race, religion, or culture." This scale's Cronbach's alpha was 0.72.

Sustainable Performance

We evaluated Ji et al. (2021) five ethical leadership items. SMEs modified the things to appeal to the employees' attention. "I will be able to persistently perform well in the overall job by carrying out tasks as expected" is an example item. This scale's Cronbach's alpha was 0.79.

Data Analysis Tool

Although SPSS 24 was used to determine the data normality and demographic profile, Smart PLS 4 was used to test the results of measurement model assessment and structural model assessment. The data analysis of this study is consistent with previous social science studies in the literature.

RESULTS

Measurement Model Assessment

Smart PLS 4 uses the measurement model assessment results to verify the discriminant and convergent validity. The factor loadings are examined in order to assess convergent validity. The validity of each item is examined at the individual level using the factor loading results, and items with loadings greater than 0.60 are approved (Hair et al., 2024). The validity of the research items was confirmed by the factor loading data, which is presented in Table 1.

Table 1: Factor loadings

	Ethical Leadership	Psychological Diversity Climate	Subordinate Agreeableness	Subordinate Extroversion	Sustainable Performance
EL1	0.820				
EL2	0.725				
EL3	0.746				
EL4	0.816				
EL5	0.731				
PDC1		0.923			
PDC2		0.909			
PDC3		0.914			
PDC4		0.914			
SA1			0.622		
SA2			0.811		
SA3			0.760		
SA4			0.798		
SE1				0.883	
SE2				0.874	
SE3				0.877	
SE4				0.882	
SP1					0.840
SP2					0.912
SP3					0.927
SP4					0.907
SP5					0.849

The validity of study data is assessed using Cronbach's alpha values. Results with a Cronbach alpha greater

than 0.70 are regarded as significant (Hair et al., 2024). Additionally, the validity of study data is assessed by testing the composite reliability values. Composite reliability results greater than 0.70 are regarded as substantial (Hair et al., 2024). In the meantime, the variance of the study data is ascertained by testing the average variance extracted values. Average variance extracted results greater than 0.50 are deemed significant (Hair et al., 2024). The information in Table 2 demonstrated that the findings from the investigation are valid and have the proper covariance.

The results of this measurement model assessment are also examined in terms of discriminant validity. To ascertain the discriminant validity, the study used the Heterotrait-Monotrait (HTMT) matrix. The results in the HTMT matrix should not exceed 0.85 for considerable validity of conclusions, per Fornell and Larcker (1981). Since no value in the matrix is more than 0.90, as validated by the HTMT results shown in Table 3, discriminant validity has been attained.

Table 2: Cronbach Alpha, reliability, validity and AVE

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Ethical Leadership	0.826	0.878	0.591
Psychological Diversity Climate	0.935	0.954	0.837
Subordinate Agreeableness	0.798	0.818	0.536
Subordinate Extroversion	0.902	0.931	0.773
Sustainable Performance	0.932	0.949	0.788

Table 3: Fornell-Larcker criterion

	1	2	3	4	5
Ethical Leadership	0.769				
Psychological Diversity Climate	0.435	.915			
Subordinate Agreeableness	0.476	0.735	0.732		
Subordinate Extroversion	0.640	0.635	0.451	0.879	
Sustainable Performance	0.466	0.718	0.542	0.681	0.888

Cross-loadings are also used to test the results of discriminant validity. It is a technique to verify each measuring item's discriminant validity. When the results of one variable's items are greater than those of other variables' items that are connected with it, this discriminant validity check method is significant (Hair et al., 2024). Table 4 presented data showed that cross-loading discriminant validity was accomplished. As a result, the data is suitable for additional analysis and possesses discriminant validity.

Table 4: Cross-loadings

	Ethical Leadership	Psychological Diversity Climate	Subordinate Agreeableness	Subordinate Extroversion	Sustainable Performance
EL1	0.820	0.367	0.395	0.541	0.398
EL2	0.725	0.306	0.263	0.488	0.349

	Cont.....					
	Ethical Leadership	Lead-ership	Psychological Diversity Climate	Subordinate Agreeableness	Subordinate Extroversion	Sustainable Performance
EL3	0.746		0.204	0.265	0.436	0.272
EL4	0.816		0.321	0.397	0.467	0.356
EL5	0.731		0.436	0.468	0.512	0.394
PDC1	0.391		0.923	0.641	0.549	0.710
PDC2	0.374		0.909	0.662	0.529	0.664
PDC3	0.378		0.914	0.679	0.594	0.684
PDC4	0.446		0.914	0.706	0.646	0.748
SA1	.567		0.644	0.722	0.621	0.759
SA2	0.396		0.563	0.811	0.326	0.405
SA3	0.359		0.531	0.760	0.343	0.384
SA4	0.356		0.598	0.798	0.333	0.433
SE1	0.590		0.575	0.420	0.883	0.620
SE2	0.630		0.474	0.357	0.874	0.527
SE3	0.472		0.629	0.424	0.877	0.648
SE4	0.555		0.554	0.385	0.882	0.598
SP1	0.426		0.537	0.402	0.663	0.840
SP2	0.439		0.730	0.504	0.577	0.912
SP3	0.432		0.727	0.534	0.608	0.927
SP4	0.437		0.731	0.522	0.616	0.907
SP5	0.335		0.667	0.430	0.567	0.849

Table 5: Assessment of structural model

Hypothesis	Relationships	Path Coefficient	T Values	p Values
H1	EL -> SE	0.640	21.413	0.000
H2	EL -> SA	0.476	10.025	0.000
Mediating Effect of Subordinate Extroversion and Agreeableness				
H3	EL -> SE -> SP	0.263	6.76	0.000
H4	EL -> SA -> SP	-0.055	2.360	0.019
Moderating Effect of Psychological Diversity Climate				
H5	SE * PDC -> SP	-0.077	2.379	0.018
H6	SA * PDC -> SP	0.143	5.294	0.000

Structural Model Assessment

This part examines the results of the Partial Least Square Structural Equation Model (PLS-SEM). To ascertain *t* statistics and *p* values, the results are tested. Any relationship that has a *t* statistic greater than 1.96 indicates that the relationship is significant (Hair et al., 2024). The findings shows that ethical leadership has positive and significant impact on subordinate extroversion (*T* value= 21.413, *p* value =0.000, *SD*= 0.030). Hypothesis 2,

ethical leadership has positively effect on subordinate agreeableness (T value= 10.025, p value =0.000, SD = 0.047).

Positively and significant mediating effect of subordinate extroversion among ethical leadership and sustainable performance (T value= 6.763, p value =0.000, SD = 0.023). Mediating role of subordinate agreeableness negative and significant effect among ethical leadership and sustainable performance (T value= 2.360, p value =0.019, SD = 0.023). Hence, H3 and H4 accepted.

Moderating role of psychological diversity climate has negative and significant impact on subordinate extroversion and sustainable performance (T value= 2.379, p value =0.018, SD = 0.032). Moderating role of psychological diversity climate has positive and significant impact on subordinate agreeableness and sustainable performance (T value= 5.294, p value =0.000, SD = 0.027). Hence, H5 and H6 accepted.

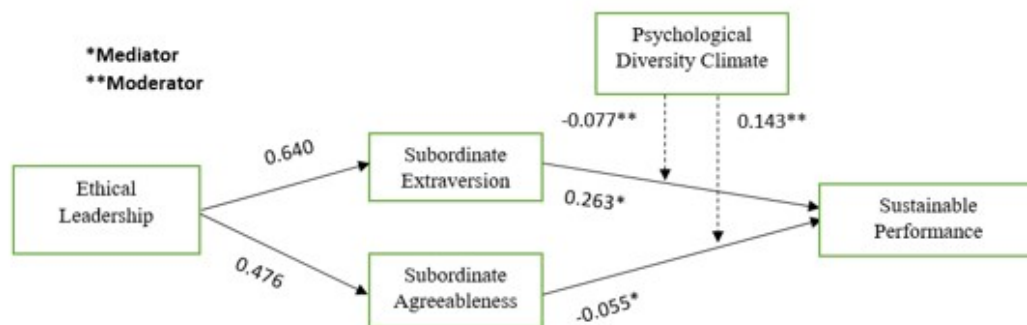


Figure 2. Assessment of structural model

DISCUSSION

The purpose of this study was to examine how and when ethical leadership may perceive and respond to sustainable performance. Our study proposed that subordinate agreeableness and extroversion may indirectly raise leaders' ethics through sustained performance, based on social rank theory. Our study also suggested that the indirect effect will depend on the climate of psychological diversity. Our study discovered the first stage of the direct correlation between ethical leadership and subordinate extraversion and agreeableness using a sample of 310 middle and senior managers employed by Portuguese SMEs in the Lisbon and Porto areas. Additionally, we discovered more evidence supporting the moderating function of climate and psychological variety in this indirect link. Our research offers light on the kinds of leaders who enhance middle and senior managers' working environments and how they raise sustainable performance. In order to convey the personality implications of ethical leadership for employees, we aimed to achieve this by emphasising the significant role that agreeableness and extroversion play in ethical leadership. The theoretically established hypothesis was validated by the empirical evidence, and the study goal was accomplished. Although this association is novel and adds to the body of literature, the results of earlier research are also meaningful.

More precisely, we demonstrate that ethical leadership has a detrimental impact on sustainable performance when extraversion is high due to a higher-quality exchange relationship between middle and senior managers. On the other hand, middle and senior managers explain how ethical leadership improves sustained performance at low or medium extraversion levels. Dey et al. (2022), which contends that managers' or owners' personal values may motivate medium-sized businesses' dedication to social and environmental issues, this implies that managers' ethical leadership may have an adverse effect on the medium-sized businesses' sustainable performance. According to this theory, extroversion and agreeableness have an indirect effect on an organization's ability to achieve high performance. Using social rank theory, Mahadevan et al. (2023a) also investigated the connection between agreeableness, subordinate extroversion, and ethical leadership in Portuguese SMEs in Lisbon and Porto. They emphasised that the social rank theory suggests that agreeableness and subordinate extroversion have a major impact on sustainable performance (Boeske, 2023). According to earlier research, ethical leaders use agreeableness

and extroversion to help employees in SMEs perform better. This was stated by Krautter et al. (2023) and Wilmot and Ones (2022). In addition to influencing subordinates' agreeableness and extroversion (Alkhadra et al., 2023), this leadership also has an effect on their overall sustainable performance. Therefore, it is clear that ethical leadership, as a personality feature, affects SMEs' sustainable performance. It was anticipated that a considerable psychological diversity environment would be influenced by subordinate extroversion and agreeableness through sustainable performance (Chiotis & Michaelides, 2022; Nandkeolyar et al., 2022; Ohana et al., 2023; Shoaib et al., 2022; Wang et al., 2022). By enabling staff members to contribute their own distinct viewpoints to the workplace, leadership was also supposed to promote the integration of psychological diversity (Kundi et al., 2024). The climate for diversity, which is the degree to which the workplace is seen as equitable and welcoming to all employees, is of academic and practical relevance as SMEs grow more diverse. (Mahadevan et al., 2023a) investigating group-level diversity climate, which is less common than individual-level diversity climate studies, and by investigating the impact of psychological diversity climate on sustainable performance. Additionally, our study is based on a more comprehensive conceptualization and operationalization of psychological diversity climate.

Theoretical Implications

Our research adds to the literature in a number of significant ways. First, by examining a sustainable performance towards the extraversion and agreeableness of their subordinates, this study broadens our understanding of ethical leadership in the workplace. Prior research has mostly concentrated on how ethical leadership affects subordinates' agreeableness, extraversion, and sustainable performance (Ji et al., 2021). This emphasises the need for a deeper comprehension of ethical leadership from the viewpoints of different organisational actors, such as managers and direct supervisors. Our research adds to the body of knowledge in behavioural ethics that combines ethical leadership with race. Khaw et al. (2022), for instance, investigated how race affected assessments of ethical leadership. We centred the role of race rather than using a framework for racial differences, which made it possible for us to incorporate the personality traits with ethical leadership. This is significant because it focusses on the personality traits like extroversion and agreeableness (Chifokoyo, 2023; Ohana et al., 2023) and shifts ethical leadership apart from the sustainable performance. Furthermore, by examining agreeableness and subordinate extraversion two interpersonal characteristics that reflect overall tendencies in how one will interact with others as crucial boundary conditions, our research adds to the body of literature by illuminating the circumstances that result in more (or less) ethical responses and perceptions from middle and senior managers. We also add to the larger field of management research that has looked at how employees with marginalized identities perceive the psychological diversity climate.

This specific stream has linked the psychological diversity climate assessments of refugee employees to their organisational commitment levels and sustainable performance (Khaw et al., 2022). Furthermore, studies have shown that employees' assessments of psychological variety climate correspond with their stated levels of agreeableness and extroversion (Mahadevan et al., 2023a). A feeling of psychological diversity is also essential for middle and senior managers to perform sustainably (Dey et al., 2022). We further this literature by elucidating the connection between our desired results (subordinate extroversion and agreeableness) and ethical leadership assessments of the psychological diversity climate.

Practical Implications

This study has a number of noteworthy practical consequences. Given how crucial ethical leadership is for middle and senior managers, organisations should understand how personality traits and behaviours can either support or undermine ethical leadership's ability to improve sustainable performance. Therefore, it makes sense for businesses to institutionalized ethics since it can boost ethical leadership in the workplace. Another wise investment is ethical leadership since it can help managers develop ethical leadership. Effective training, a clear grasp of incentives and advancement plans, and experiences of respect at work can all help supervisors feel supported by the company and treat their subordinates more morally and empathetically in return. Additionally, our study discovered that employee extraversion significantly limited ethical leadership towards sustainable employee performance. Organisations may think about employing qualified managers who are amiable and extraverted to avoid such difficult situations. Companies can also train executives on how to work well with qualified personnel, particularly

those with high extraversion, and give them the right kind of social encouragement and strategic guidance. Training promotes the learning process and helps people develop their leadership abilities. Alkhadra et al. (2023) assert that personality traits can also be learnt without formal instruction. Additionally, from an organisational perspective, companies need employees to be "prepared" for long-term work performance in order to increase the system's competitiveness in a positive and healthy way. In theory, this is a process of employee self-regulation that involves sustained performance goals, unbroken regeneration, and avoidance of invested resources. More specifically, our research demonstrates that although extraverted people may be more suited to the more successful leadership philosophies suggested by Khanam et al. (2023) full range leadership model, effectiveness and extraversion should not be confused. When allocating jobs, employers must also take into account the personality of the worker because different personalities will lead to diverse reactions to the treatment they receive. Leaders who uphold ethics make sure that their staff members feel important. This probably happens as a result of ethical leaders improving workers' sustainable performance (Moran, 2023).

Limitations and Future Research

We recognise that this study has a number of significant limitations. However, statistical results show that the current research's goal has been substantially met. Our sample, which is derived from an online survey, is somewhat tiny. Although it is appropriate for management research, this could lead to a bias in self-selection that would restrict how broadly our findings can be applied. A larger conventional sample drawn from one or more of the indicated organisations should be used in future research to validate our findings. Even though the data from this study is cross-sectional, causation might be assessed using a longitudinal and experimental research methodology. It is possible to use longitudinal data for next studies. Second, because this study is restricted to Portuguese SMEs in the Lisbon and Porto regions, the findings' application is a research drawback. Future studies, however, could include any other industries, including the banking, tourist, hospitality, and Information Technology (IT) sectors. Furthermore, while a random sample approach might yield different results, the study used a handy sampling strategy. Finally, this study focusses at how ethical leadership affects sustainable performance in the context of moderation (psychological variety). Future studies might take this limitation into consideration by examining moderating factors including ethical atmosphere, organisational support, and work engagement.

CONCLUSION

The current study uses social rank theory as a starting point to examine how ethical leadership may perceive and respond to subordinate extroversion and agreeableness. It is still up for dispute which leadership style can have the greatest impact on the success of Portuguese SMEs in the Lisbon and Porto regions, but for the past ten years, leadership and various leadership philosophies have been linked to sustainable performance. Furthermore, in order to improve the sustainable performance of SMEs, it is imperative to determine the additional elements that may directly or indirectly interfere with ethical leadership. This study has demonstrated that subordinate extroversion and agreeableness mediate the most viable and important relationship between ethical leadership and sustainable performance. The findings of this study serve as recommendations for decision-makers who are interested in sustainable performance. They can improve the psychological diversity climate, establish ethical leadership, and improve sustainable performance.

REFERENCES

- Alkhadra, W. A., Khawaldeh, S., & Aldehayyat, J. (2023). Relationship of ethical leadership, organizational culture, corporate social responsibility and organizational performance: A test of two mediation models. *International Journal of Ethics and Systems*, 39(4), 737–760.
- Beasley, M., Sabatinelli, D., & Obasi, E. (2012). Neuroimaging evidence for social rank theory. *Frontiers in Human Neuroscience*, 6, 123.
- Blake, A. B., Luu, V. H., Petrenko, O. V., Gardner, W. L., Moergen, K. J., & Ezerins, M. E. (2022). Let's agree about nice leaders: A literature review and meta-analysis of agreeableness and its relationship with leadership outcomes. *The Leadership Quarterly*, 33(1), 101593.
- Boeske, J. (2023). Leadership towards sustainability: A review of sustainable, sustainability, and environmental leadership. *Sustainability*, 15(16), 12626.

- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2), 117–134.
- Cahyono, E., & Widarjo, W. (2022). Abusive leader and employee's job satisfaction: The role of extraversion. *Age (Year)*, 50(4), 41–50.
- Chifokoyo, L. (2023). *Employee's vantage point: How the perception of supervisor's narcissism and agreeableness impacts employee's perceived organizational support* [Master's thesis, Azusa Pacific University].
- Chiotis, K., & Michaelides, G. (2022). Crossover of work engagement: The moderating role of agreeableness. *International Journal of Environmental Research and Public Health*, 19(13), 7622.
- Dey, M., Bhattacharjee, S., Mahmood, M., Uddin, M. A., & Biswas, S. R. (2022). Ethical leadership for better sustainable performance: Role of employee values, behavior and ethical climate. *Journal of Cleaner Production*, 337, 130527.
- Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: Tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, 18(2), 192.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fosse, T. H., Martinussen, M., Sørli, H. O., Skogstad, A., Martinsen, Ø. L., & Einarsen, S. V. (2024). Neuroticism as an antecedent of abusive supervision and laissez-faire leadership in emergent leaders: The role of facets and agreeableness as a moderator. *Applied Psychology*, 73(2), 675–697.
- Hair, J. F., Sharma, P. N., Sarstedt, M., Ringle, C. M., & Liengaard, B. D. (2024). The shortcomings of equal weights estimation and the composite equivalence index in PLS-SEM. *European Journal of Marketing*, 58(13), 30–55.
- Hameed, Z., Naeem, R. M., Misra, P., Chotia, V., & Malibari, A. (2023). Ethical leadership and environmental performance: The role of green IT capital, green technology innovation, and technological orientation. *Technological Forecasting and Social Change*, 194, 122739.
- Ji, T., de Jonge, J., Peeters, M. C., & Taris, T. W. (2021). Employee sustainable performance (E-SuPer): Theoretical conceptualization, scale development, and psychometric properties. *International Journal of Environmental Research and Public Health*, 18(19), 10497.
- Khanam, Z., Tarab, S., & Khan, Z. (2023). Examining the link between responsible leadership and employee sustainable performance: The mediating role of ethical climate. *Journal of Economic and Administrative Sciences*, 41(5), 1994–2012.
- Khaw, T. Y., Teoh, A. P., Khalid, S. N. A., & Letchmunan, S. (2022). The impact of digital leadership on sustainable performance: A systematic literature review. *Journal of Management Development*, 41(9/10), 514–534.
- Krautter, K., Büchner, A., & Jachimowicz, J. M. (2023). Extraverts reap greater social rewards from passion because they express passion more frequently and more diversely. *Personality and Social Psychology Bulletin*, 22, 01461672231211843.
- Kundi, Y. M., Ahmad, F., & Nazir, U. (2024). Ethics, faith, and engagement: Unpacking the effect of voice climate on work engagement. *Journal of Business Ethics*, 11, 1–15.
- Liegl, S., & Furtner, M. R. (2023). Introverted and yet effective? A faceted approach to the relationship between leadership and extraversion. *Frontiers in Psychology*, 14, 1185271.
- Mahadevan, N., Gregg, A. P., & Sedikides, C. (2023a). Daily fluctuations in social status, self-esteem, and clinically relevant emotions: Testing hierometer theory and social rank theory at a within-person level. *Journal of Personality*, 91(2), 519–536.
- Mahadevan, N., Gregg, A. P., & Sedikides, C. (2023b). How does social status relate to self-esteem and emotion? An integrative test of hierometer theory and social rank theory. *Journal of Experimental Psychology: General*, 152(3), 632.
- Moran, A. O. (2023). The influence of ethical leadership and sustainable leadership on sustainable performance: The moderating role of gender. *International Journal of Economics & Business Administration (IJEBA)*, 11(3), 97–113.
- Nandkeolyar, A. K., Bagger, J., & Ekkirala, S. (2022). Damned if she does, damned if she doesn't: The interactive effects of gender and agreeableness on performance evaluation. *Journal of Business Research*, 143, 62–71.
- Ohana, M., Stinglhamber, F., & Caesens, G. (2023). Coworkers' interpersonal justice and team citizenship behaviors: Mediation of social exchange and identity and moderation of extraversion. *European Business Review*, 35(6), 924–940.
- Pugh, S. D., Dietz, J., Brief, A. P., & Wiley, J. W. (2008). Looking inside and out: The impact of employee and community demographic composition on organizational diversity climate. *Journal of Applied Psychology*, 93(6), 1422.
- Shoaib, M., Nawal, A., Zámečník, R., Korsakienė, R., & Rehman, A. U. (2022). Go green! measuring the factors that influence sustainable performance. *Journal of Cleaner Production*, 366, 132959.
- Wang, Y., Dunlop, P. D., Parker, S. K., Griffin, M. A., & Gachunga, H. (2022). The moderating role of honesty-humility in the association of agreeableness with interpersonal competency: A study of managers in two countries. *Applied Psychology*, 71(1), 219–242.

Wilmot, M. P., & Ones, D. S. (2022). Agreeableness and its consequences: A quantitative review of meta-analytic findings. *Personality and Social Psychology Review*, 26(3), 242–280.