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CEO personality configurations and ESG performance: a fsQCA study in the European textile industry

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Resumo

A investigação sobre o impacto da personalidade do CEO nos resultados organizacionais chegou a um ponto em que é necessária uma abordagem mais sofisticada do que a proporcionada pela análise tradicional traço-a-traço, que, até agora, produziu resultados insatisfatórios. Isto exige uma abordagem configuracional.

Assim, este estudo investiga como as configurações dos traços de personalidade dos CEOs, operacionalizadas através de três traços do modelo HEXACO, se relacionam com o desempenho ESG entre empresas têxteis europeias. Através da análise de conteúdo de 22 cartas aos acionistas pelos CEOs, utilizando a Análise Comparativa Qualitativa de Conjuntos Fuzzy (fsQCA), este estudo identifica combinações de Honestidade-Humildade, Abertura e Conscienciosidade que prevêem resultados ESG.

Os resultados mostram duas configurações de traços viáveis consistentes com pontuações ESG elevadas, corroborando assim o valor acrescentado que uma abordagem configuracional traz à investigação. Além disso, a Consciência é o fator mais central do desempenho ESG, uma vez que apareceu consistentemente como uma condição essencial, quer em combinação com honestidade-humildade, quer com abertura.

Palavras-chave: HEXACO, Configurações, Desempenho ESG, fsQCA

Código JEL: M12 (Gestão de pessoas), Q56 (Sustentabilidade)

Abstract

Research on CEO personality impact on organizational relevant outcomes has come to the point of requiring a more sophisticated approach than the one provided by the traditional trait-by-trait analysis which has, so far, produced unsatisfactory results. This calls for a configurational approach.

Accordingly, this study investigates how configurations of CEO personality traits, operationalized through three traits of the HEXACO framework, relate to ESG performance among European textile firms. By content analyzing 22 CEOs' shareholder letters using fuzzy-set Qualitative Comparative Analysis (fsQCA), the research identifies combinations of Honesty-Humility, Openness, and Conscientiousness that predict ESG outcomes.

Findings show two viable trait configurations consistent with ESG high scores, thus corroborating the added value a configurational approach brings to research. Moreover, Conscientiousness is the most central driver of ESG performance as it consistently appeared as a core condition either in combination with Honesty-Humility or with Openness.

Keywords: HEXACO, Configurations, ESG performance, fsQCA

JEL Code: M12 (Personnel Management), Q56 (Sustainability)

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1. Introduction

Organizations today face increasing pressure to show progress in their Environmental, Social and Governance performance (ESG). Stakeholders, consumers and regulators alike demand that firms start prioritizing sustainability while also consistently performing financially (Chen et al., 2023, Friede et al., 2015). Due to this demand, the subject of ESG performance itself has become increasingly prevalent in the latest years, as does the recognition that corporate leadership is ultimately called to action.

In this context, leadership can play an essential role. Judging by the extension of published research on leadership as well as its critical position in organizations, it is safe to assert that leadership plays a pivotal role in organizations and in organizational research. Amongst the countless classifications and theoretical proposals on leadership there has been a trend in research where complexity is consistently added to the early simplistic views (Antonakis & Day, 2018; Judge et al., 2002). Among the first approaches to leadership lies the well-known theory on leaders' personalities and attributes, that justify why a certain individual would ascend to a leader position while others would not. Historically, this approach fell out of favor due to its inability to consistently predict leadership outcomes across different contexts. This personality and attributes approach was mostly replaced by behavioral approaches (ascribing the leaders' effectiveness to the observable behavior), contingency approaches (matching leaders' features with those of their team or task) and neo-charismatic approaches (charisma is necessary for leadership success). In recent decades, the personality and attributes approach has made a resurgence. With the theoretical framework in the form of a meta-analysis that Judge et al. (2002) provided, the robustness of trait theory has been re-established, and consequently additional research has been conducted to expand and elaborate trait theories (Derue et al., 2011) in the last two decades.

One of the motives for the resurgence of leader's personality trait research related to the Upper Echelons Theory (UET). According to UET, executive characteristics are posited to shape organizational outcomes as they reflect the values, cognitive bases, and experiences of those at the head of the firm (Hambrick & Mason, 1984). Because executives must deal with ambiguity, decision-making and time pressure, they rely on aspects formed by relatively stable characteristics such as personality and career experiences to interpret issues and choose among strategic options. This means that what organizations do becomes, in part, a reflection of who their leaders are (Hambrick, 2007). Furthermore, from the UET perspective, leaders' personality profiles are relevant due to the critical role leaders play in corporate communications (towards internal and external stakeholders) as shown by Lee (2022).

In line with this, personality traits have been extensively studied in relation to leadership, and this approach has made a mark in the earlier view on leadership styles and effectiveness

(Zhu et al., 2019). Mainly with the Big Five personality trait theory integrated by McCrae and Costa (1999), a new ground zero had been set in the development of leadership and personality trait theory. The theory consists of the personality traits Extraversion, Agreeableness, Openness, Neuroticism and Conscientiousness, which will be expanded on in the literature section. Since its development, the Big Five personality trait theory has been widely regarded as the prominent framework for understanding and measuring personality traits. However, the introduction of the HEXACO model by Ashton et al. (2004) has challenged this dominance. The HEXACO model proposes the addition of a sixth trait, Honesty-Humility, which is argued to be both distinct from the original five traits and highly relevant for predicting behavior (Howard & Van Zandt, 2020). Honesty-Humility has already been shown by Javalagi et al. (2024) to predict leadership effectiveness over and beyond the other five traits. This addition raises questions about the completeness of the Big Five model and its ability to account for important aspects of personality. In embracing HEXACO as a promising personality theory in leadership, there is yet much to be known.

Moreover, extant research is typically focused on each trait's contribution to outcomes, considered individually, which is only reasonable if one assumes they operate in an independent manner. However, this assumption should be questioned, as Stoker and colleagues (2023) called for, with emerging findings that take a more configurational approach of personality traits and types, which do suggest such approach is advantageous (e.g. Daljeet et al., 2017). Research that takes a configurational approach to personality traits and leadership is quite limited, especially regarding Honesty-Humility. This is the research gap that motivates this study.

To address this gap, this study draws on both UET and Trait Activation Theory (TAT). As stated, UET posits provides a framework for linking CEO personality profiles, which is observable in corporate communications, to firms' ESG image and performance. Complementarily, TAT posits that traits are expressed when situational cues trigger them (Tett & Burnett, 2003). In the case of ESG, contexts linked to each of these dimensions typically differ, as the critical stakeholders, the market and institutional pressures vary. Such contexts provide strong activating conditions for ethical conduct, innovation, and diligence, making TAT a useful lens for linking CEO personality to ESG outcomes in this research.

Considering the added value of HEXACO, this study focuses on three HEXACO traits: *Honesty-Humility (H-H)*, *Openness (O)*, and *Conscientiousness (C)*. These are theoretically and empirically relevance to pro-environmental attitudes such as ethical conduct, strategic foresight, and diligence, all of which align with the principles intertwined in ESG (practices (Soutter et al., 2020). A configurational approach is quite feasible by using a fuzzy set qualitative comparative analysis (fsQCA), which will be elaborated on in the method section.

By applying fsQCA, this study operationalizes configurational logic and empirically tests which combinations of traits correspond to strong ESG performance.

Empirically, this research focuses on the European textile industry, a sector known for its environmental impact, globalized supply chains, and heightened stakeholder scrutiny, making it a suitable empirical context for examining the CEO personality - ESG linkage (D'Amato et al., 2021). The sector has been recognized as one of the most environmentally intensive industry worldwide. According to the European Environment Agency (2022), textile consumption within the EU ranks as the fourth highest input of environmental and climate pressures. The prevalence of fast fashion has increased these pressures, accelerated production and creating large volumes of textile waste, of which less than 1% is currently recycled into new clothing (Niinimäki et al., 2020). This places textile firms under large scrutiny to reduce their carbon footprint and shift toward more sustainable and durable business models, aligned with improved ESG performances.

This study has theoretical relevance as it extends UET beyond the domains where it is usually adopted, namely corporate strategy, innovation, corporate social responsibility, and financial performance (Carpenter et al., 2004; Finkelstein et al., 2009). It also follows the trend of targeting sustainability-related outcomes, extending studies such as Chin et al. (2013) research that linked CEO ideology and personal values to firms' CSR and ESG engagement. Lastly, by applying fsQCA in trait-based leadership research, this study reveals multiple, equally valid personality trait configurations through which CEOs can drive ESG performance, moving beyond linear personality models in the leadership field.

The contributions to practice and management rely on the close-to-reality view on personality traits that a configurational approach offers, compared to traditional trait-by-trait analysis. This will offer more complete and thus beneficial insights to shareholders or any other decision maker that can appoint the CEO.

2. Literature review

Literature akin to the topic is reviewed so to first offer an understanding of the Environmental, Social and Governance domains. Secondly, to understand leadership and leadership effectiveness as constructs. Proceeding with an overview of personality traits theory with a focus on HEXACO. The final section will focus on linking the relevant personality traits as drivers for the ESG performance of an organization.

2.1. Environmental, Social and Governance (ESG)

In leadership studies, one of the most salient focuses is found on organizational performance or effectiveness because an effective leader is judged by the ascribed role they played in making the organization effective. However, today, the construct of organizational effectiveness or performance goes well beyond mere financial outcomes, as sustainability established itself as the required ethical drive of organizations. This has come to be expressed under the term *ESG* (Environmental, Social and Governance).

Long are the days when Milton Friedman's doctrine prevailed to state that the foremost responsibility of an organization is the maximization of shareholders returns. For many years, ESG responsibilities were not considered relevant by most organizations that have been focusing on profit maximization. However, in the last two decades, ESG issues revealed their influence on both long-term financial viability and profitability (D'Amato et al., 2021). Additionally, a more general rise in awareness for these issues has been observed globally, which leads to increased questioning and auditing of large companies. As robust research by Friede et al. (2015) has shown, corporate financial performance has been positively correlated with ESG practices. Meaning that not only for sustainability and climate reasons, but also for financial performance and profit, ESG is relevant. A more recent study has found that the influence of ESG rating on corporate performance is significant for large scale companies and non-significant for small-scale companies and thus highlights the importance for multinationals to have a stable ESG performance (Chen et al., 2023). Moreover, this study showed that better ESG performance improves operational efficiency and lowers capital costs.

In recent years, ESG practices have become central to strategic leadership (Zhu & Huang, 2023), as stakeholders increasingly expect firms to deal with environmental, social, and governance issues proactively.

According to the Upper Echelons Theory (UET), introduced by Hambrick and Mason (1984), organizational outcomes are, to a significant extent, reflections of the values, experiences, and dispositions of top executives. Strategic decisions are not made in a vacuum; rather, they are shaped by leaders' cognitive frames and personal priorities (Hambrick, 2007). This influence is particularly pronounced in high-discretion contexts, where

environmental complexity and weakly defined decision rules leave substantial room for executive interpretation (Carpenter et al., 2004). A large meta-analysis found reliable CEO effects on both strategic actions and organizational performance (Wang et al., 2016). The research highlights that CEO characteristics explain nontrivial variance in outcomes, all while controlling for industry and form factors. This supports one of the main claims by the UET that the CEO and their behavior matter on an organization wide scale.

Corporate leadership plays a central role in bringing together societal expectations about the company's impact, with those stemming from shareholders or any other critical stakeholder that may have a divergent interest. This confers leadership a central position in determining how much a given organization will value ESG.

2.2. Leadership and leadership effectiveness

Before exploring how leadership can relate to ESG, it is important to gain clarity about what leadership is. The study of leadership has struggled to reach a consensus on what leadership is and how it compares to similar responsibilities such as management. Lunenburg (2011) contrasts leadership with management by highlighting how managers tend to focus on things, control subordinates, manage change, to direct and coordinate while leaders tend to focus on people, empower subordinates, enforce change, and trust and develop. Therefore, while management is focused on material resources with a rational efficiency drive, leadership is focused on people with a political effectiveness drive. More recently, Antonakis and Day (2018) define leadership as "a formal or informal contextually rooted and goal-influencing process that occurs between a leader and a follower, groups of followers, or institutions" (p.5). Leadership research evolved significantly over the years, with various theories and models emerging to explain what constitutes effective leadership. Albeit diversely defined, a pioneer definition by Ralph Stogdill highlighted by Judge et al. (2002, p. 767) takes leadership effectiveness as "a leader's performance in influencing and guiding the activities of his or her unit toward achievement of its goals".

According to Antonakis and Day (2018) in identifying the factors of such influence attributable to the individual leader, the early leadership research was dominated by trait theories, which proposed that certain inherent characteristics or personality traits could consistently predict leadership effectiveness or styles. This approach suggests that leaders are born with specific traits that distinguish them from non-leaders.

However, this perspective faced criticism for its' inability to account for situational factors and its' lack of consistency in identifying universal leadership traits. In response to these criticisms, the focus within organizational and leadership research shifted towards behavioral theories in the mid-20th century. These theories emphasized the actions and behaviors of leaders rather than their inherent traits, although these might be indirectly linked. Despite the

insights provided by behavioral theories, they too faced limitations, mainly in their failure to account for the influence of context on leadership effectiveness. The contingency theories emerged as a response to the limitations of both trait and behavioral theories. These theories posited that the effectiveness of a leadership style is contingent upon various situational factors (Antonakis & Day, 2018).

In recent decades, contemporary leadership theories have gained prominence. Transformational and transactional leadership theories, for instance, focus on the relationship between leaders and followers, emphasizing the role of leaders in inspiring and motivating followers to achieve higher levels of performance (Bass & Riggio, 2006). These theories have been supported by meta-analytic studies that demonstrate the significant impact of transformational leadership on various organizational outcomes (e.g. Deng et al., 2023).

In the evolution of leadership theory, there is a shift from the inward nature of leaders towards their relationship established with stakeholders. Responsible leadership, for instance, is by definition a relationship between leaders and stakeholders that is based on values and ethical principles connecting them through a shared sense of meaning and purpose (Pless, 2007). This goes beyond ethical leadership because it considers the external moral expectations of the stakeholder (Voegtlin, 2016).

As mentioned, the trait approach to explaining parts of leadership has resurged in recent years. This is clearly inferred in Antonakis and Day (2018, p. 5) definition on what leadership research is all about when stating it is the “systematic study of this process [leadership] and its outcomes, as well as how this process depends on the leader’s traits and behaviors, observer inferences about the leader’s characteristics, and observer attributions made regarding the outcomes of the entity led.” The next section will explore the connection between leadership and personality traits in greater detail.

2.3. Personality traits theory and leadership

Personality as a construct is as old as humanity itself. A classical definition, in perhaps the most famous and still widely cited (Allport, 1961, p. 28) stated that personality is “the dynamic organization *within* the individual of those psycho-physical systems that *determine* his characteristic behavior and thought”. Currently, personality has been more comprehensively defined as the “set of psychological traits and mechanisms within the individual that are organized and relatively enduring and that influence his or her interactions with, and adaptations to, the intrapsychic, physical, and social environments” (Larsen & Buss, 2017, p. 4).

After decades of research, most proposals of trait theory were integrated into what has been known as this Five-Factor model (McCrae, 1999). This model, a cornerstone in Personality Psychology, originated from the lexical approach to personality structure.

Early studies, such as those by Cattell (1943), used English trait terms to develop a personality description, which eventually led to the identification of five orthogonal factors that consistently showed across different analyses. The model was further refined through factor analysis, a statistical method used to identify clusters of related traits. Therefore, this approach posits that the most significant personality traits are embedded in language, leading to the identification of five dimensions: Extraversion, Agreeableness, Openness, Neuroticism and Conscientiousness. These dimensions can aggregate most personality traits proposed by then (McCrae, 1999). High scores on *Extraversion* predict the tendency to be dominant, enthusiastic and talkative. It involves enjoying company of others and being energetic in social situations. *Agreeableness* features caring about others, altruism and emotional support. It represents the ability to sincerely empathize with others. *Openness* (or Openness to Experience) is associated with intellectuality, creative interests, openness to new experiences and eye for aesthetics. *Neuroticism* is the dimension associated with depression, nervous tendencies, guilt and frustration. Individuals scoring high on this trait may be prone to mood swings and stress. Lastly, when talking about *Conscientiousness*, it is thought to be the ability that controls impulsive behavior. It can be related to adjectives like well-organized, diligent and ambition oriented.

There is a plethora of empirical research relating the FFM to leadership behaviors and effectiveness. For example, Kornør and Nordvik (2004) found that Conscientiousness and Extraversion were positively associated with a general score of leadership behavior that measures the overall leaders' orientation to change (oriented), production (task oriented), and employee (relationship oriented) as proposed by Ekvall and Arvonen (1991) and this is in line with many previous studies they cited.

Comparatively, the FFM, has been the dominant framework in personality research for a long time. Studies have consistently found that Extraversion and Conscientiousness are strong predictors of leadership emergence and effectiveness, while Neuroticism is negatively associated with leadership outcomes (Judge et al., 2002).

Most recently, the Five-Factor model evolved by the addition of an extra personality trait, namely Honesty-Humility. The HEXACO model of personality evolved from the original Five-Factor model by combining insights from evolutionary, situational, and personality perspectives (De Vries et al., 2016) and is expanded below. The HEXACO model of personality shows a significant advancement in the study of personality traits, particularly in its application to leadership research. The HEXACO dimensions are Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience which were proposed by Ashton et al. (2004) in the aftermath of factor analyses that showed a six-factor solution with better fit than the expected five-factor solution. The inclusion of *Honesty-Humility* is a key differentiator of the HEXACO model. This trait captures aspects of

personality related to sincerity, fairness, and modesty, which are not completely covered by the original Five-Factor Model.

The HEXACO model's broader scope provides a more comprehensive understanding of personality and trait roles in leadership. For instance, while the FFM's Agreeableness is related to cooperation and social harmony, the HEXACO model distinguishes between Emotionality (or Neuroticism) and Honesty-Humility, allowing for a more nuanced analysis of interpersonal and ethical dimensions of leadership (Ashton et al., 2014). Research has shown that Honesty-Humility is a strong predictor of leadership effectiveness, particularly in contexts that require ethical decision-making and integrity (Javalagi et al., 2024).

Moreover, the HEXACO model has been shown to predict leadership preferences and styles. For example, individuals high in Honesty-Humility and Extraversion tend to prefer charismatic leadership, while those high in Conscientiousness may lean towards task-oriented leadership. This aligns with findings that HEXACO traits can predict transformational leadership beyond the FFM, namely that Humility-Honesty explains unique variance beyond that accounted for by FFM (Javalagi et al., 2024). This highlights the model's utility in leadership research.

In summary, the HEXACO model offers a valuable framework for understanding the complex interplay between personality traits and leadership. HEXACO is particularly interesting in this domain because Honesty-Humility trait could provide insights into ethical leadership and integrity, areas not fully captured by the FFM (Lee et al., 2019). By integrating HEXACO's broader personality dimensions, researchers can gain a more holistic view of the traits that contribute to effective leadership. These frameworks are useful in considering how strongly leaders' personality traits explain their focus on ESG and the likely consequence as regards corporate ESG performance.

2.4. Leader traits as critical ESG drivers

As stated, leadership plays a pivotal role in shaping an organization's ESG orientation, given that leaders influence corporate values, set strategic priorities, and act as role models for sustainable practices (Waldman & Siegel, 2008). The growing demand for transparency and ethical responsibility requires leaders to balance short-term financial objectives with long-term sustainability goals, integrating ESG principles into decision-making processes (Eccles et al., 2014) which is why ESG-focused leadership has been shown to enhance corporate reputation, stakeholder trust, and long-term financial viability (Chen et al., 2023; Friede et al., 2015).

Transformational leadership has been identified as positively associated with higher ESG performance. Leaders who inspire followers to transcend self-interest for collective goals are more likely to drive environmentally and socially responsible initiatives within organizations (Zhang et al., 2022). Moreover, studies indicate that leadership integrity and ethical orientation,

with dimensions closely related to traits like Honesty-Humility from the HEXACO framework, are significant predictors of a company's ESG performance (Lee et al., 2019). Leaders high in Honesty-Humility are less likely to engage in exploitative practices and more inclined toward responsible governance and sustainability-driven strategies.

In another line of reasoning, some other CEO traits, e.g. narcissism, tend to favor externally visible CSR (reputation-oriented) over less visible, internally oriented CSR, thus having impact on both the level and profile of the firms' social initiatives (Petrenko et al., 2016). The acknowledgment that personality traits matter in judging CEO decisions and effectiveness as regards ESG, implies that the same external ESG pressures can yield divergent strategic responses depending on the CEO's traits.

However, most studies treat these traits as independently exerting effects although there is indication in literature that personality traits can be studied from a configurational viewpoint in a closer-to-reality approach to empirical settings. As Zaccaro (2007) has found in his research, combinations of traits and attributes, integrated in conceptually meaningful ways, are more likely to predict leadership than additive or independent contributions of several single traits. As an example of the shift into configurational analysis in this line of research, a study conducted by Sahin and Brancu (2024) reasoned that in explaining expatriates job performance, personality traits play a role but the same is valid for cultural intelligence. Moreover, they argued that such personality traits and the dimensions that are entailed in cultural intelligence do not operate in an isolated way but rather in configurations. By applying suitable data analysis techniques, they found three configurations that could better account for the expatriates' job performance. Based on this the following propositions are made:

P1: H-H, O and C will be each included in at least one configuration with predictive power on ESG performance

P1a: H-H will be each included in at least one configuration with predictive power on ESG performance

P1b: O will be each included in at least one configuration with predictive power on ESG performance

P1c: C will be each included in at least one configuration with predictive power on ESG performance

Personality traits may not be equally weighted in the configuration due to the ESG context. This specific context can modulate the relative importance of personality traits. Trait Activation Theory (Tett & Burnett, 2003) provides a valuable framework for understanding how personality traits can influence leadership behaviors depending on situational demands. According to this theory, personality traits are latent tendencies that become expressed when situational cues in the environment activate them. For example, contexts that emphasize collaboration and ethical conduct may activate traits such as Agreeableness or Honesty-

Humility, while high-pressure, results-driven environments might activate traits like Conscientiousness and Extraversion.

In the leadership domain, TAT helps explain why certain personality traits predict effective leadership in some contexts but not others. This aligns with contingency perspectives in leadership research, suggesting that there is no universally “best” leadership style; rather, effectiveness depends on how well leaders’ personality traits align with situational demands. For instance, leaders high in Openness may thrive in innovation-driven contexts, while those high in Conscientiousness may excel in highly regulated environments requiring precision and compliance.

When applied to ESG, TAT offers an especially relevant perspective. ESG-oriented organizational contexts provide strong situational cues that activate traits related to ethical behavior, social responsibility, and sustainability consciousness. Leaders scoring high in Honesty-Humility and Agreeableness may naturally engage in ESG-aligned strategies, whereas leaders low in these traits may require stronger organizational pressures or incentives to adopt sustainable practices. Therefore, TAT serves as a bridge between personality-based leadership research and emerging ESG imperatives, highlighting how specific trait configurations interact with organizational contexts to shape responsible leadership outcomes.

P2: Perceived CEO conscientiousness is the most activated trait in relation to ESG performance

P3: Perceived CEO Honesty-Humility is the second most activated trait in relation to ESG performance

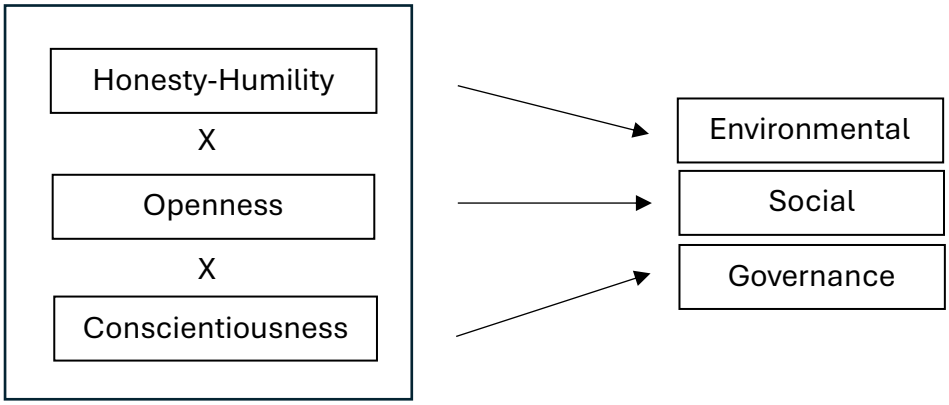
P4: Perceived CEO Openness to experience is the least activated trait in relation to ESG performance

It is reasonable to posit that, from a UET perspective, ESG strategies are likely to mirror CEOs’ stable dispositions, while TAT suggests that ESG contexts activate specific traits, such as Conscientiousness or Honesty-Humility. Thus, examining *trait configurations* offers a more realistic view of how leaders influence ESG outcomes. Therefore, the following conceptual model is proposed.

2.5. Conceptual model

The propositions refer to configurational effects and therefore they may be represented as a three-way moderation which altogether accounts for ESG individually and as a whole. The conceptual model is depicted in Figure 1 below.

Figure 1 – Conceptual model



3. Method

3.1 Procedure

To gather data this research made use of content analysis. CEO letters to shareholders were selected as the unit of analysis due to their established use in prior research as valid linguistic proxies for personality traits (e.g. Craig & Amernic, 2011).

Prior research has validated CEO communications, namely annual letter narratives, as reliable proxies for underlying personality constructs due to their personal authorship, symbolic leadership role, and strategic image (Chatterjee & Hambrick, 2007; Lee, 2022). As conducted in the research by Craig and Brennan (2012), the language choice is correlated to shareholders and corporate reputation, highlighting the influence of CEO communication within these contexts.

The CEO letters were manually collected from company websites and PDF files of annual reports. For each company, the most recently available letter was selected. In most cases this was 2023, and in a few cases, this was 2024. The published year of each letter can be found in Appendix 1. Inclusion criteria required that the letter be explicitly published by the CEO, thus not counting other executives or spokesperson written letters. Each letter was manually downloaded from official websites or annual reports in PDF format. The text was pre-processed to remove visual formatting elements and standardize language structure. From these documents, a total of 133 excerpts were extracted based on relevance to the three personality traits from the HEXACO model: Honesty-Humility, Openness to Experience, and Conscientiousness.

These personality trait categories were conceptually defined based on Ashton and Lee (2008). The coding process followed a deductive, trait-based categorization procedure. Each excerpt per letter was classified under one of the three traits based on the presence of representative lexical and semantic indicators. The frequency of the traits and the excerpts can be found in Appendix 2, while the specific excerpts can be found in Appendix 3. To ensure objectivity and reliability, a second independent coder assessed 20% of the sample. Inter-rater agreement procedures and Cohen's Kappa statistics are reported in section 3.5.

Once all excerpts were categorized and the dataset finalized, the data were calibrated into fuzzy-set scores (0 to 1) according to fsQCA protocol (Ragin, 2009). This calibration allowed the data to be analyzed using configuration-based logic, identifying combinations of traits associated with high ESG performance. The calibrated values can be found in Appendix 4. The data analysis strategy is elaborated in the following section.

3.2 Data analysis strategy

As the main proposition is configurational in nature, it is possible to test it with successive interactions (i.e. a three-way interaction) which would require a huge sample size that is unfeasible. However, an emerging data analysis technique named fuzzy set Qualitative Analysis (fsQCA) has been developed precisely to account for configurational analysis without the need for large data size. According to Ragin and Fiss (2008) fsQCA is a technique based in Boolean algebra that relates configurations of variables to an outcome. It depicts combinations of conditions from each variable that are associated with the absence of an outcome, a positive outcome, and a negative outcome (Huarng & Yu, 2017). By contrasting all cases, some specific combinations may show more frequently when a given outcome is observed. Frequencies produce an overall score to indicate which combinations (if any) are concurrent to which outcomes. As concluded by Kumar et al. (2022), it is also a very consistent technique to use within management and business-related research.

So, this is an algebraic approach to co-occurrences between variables and their respective conditions, that ultimately provide configurations and their outcomes. This study will apply Pappas and Woodside (2021) guidelines to using fsQCA.

According to Ragin and Fiss (2008) technical terminology, “consistency” is the equivalent to goodness of fit in regression model and indicates how frequently the presence of the condition matches the presence of the outcomes (or conversely, their simultaneous absence). Coverage is manifested in both raw coverage and unique coverage. Both are the equivalent to R2 in regression models and express the proportion of the outcome accounted by the configurations. However, more than one configuration can cover the same cases, which may count double. For this reason, unique coverage shows exclusively the coverage without such duplicated cases.

The fsQCA procedure comprehends the following sequence: 1) Data calibration process, 2) Analysis of necessary conditions (and potential removal of these conditions), 3) Construction and calibration of the truth table, and 4) Derivation of the solution terms. To be able to conduct fsQCA in a proper manner, the procedure starts with a data calibration process, to ensure that all variables are expressed as fuzzy-set membership scores ranging from 0 to 1. The input for the fsQCA can be found in Appendix 5.

3.3 Sample

The final dataset contained 22 textile companies operating within the EU. The CEO to stakeholder letters were published between 2023 and 2024, with the majority utilizing the most recent version. Overall, this represents a certain number of pages, freely addressing whatever topics the CEO wants to. We have considered the sample as the full range of companies that operate in the EU and report data on publicly available platforms such as Bloomberg.

However, the sectors are very diverse, and the pressure on ESG compliance varies. A few sectors were considered due to their intriguing nature. Initially, global manufacturing companies in the heavier industry (steel, gas etc.) were considered, due to the high environmental impact. However, due to difficulty of finding reliable and verified information and CEO letters, this industry was abandoned. Additionally, we have also considered the finance sector, due to their high sensitivity in governance aspects, even though it has less environmental impact. Therefore, we opted for the globally known textile manufacturing sector for a few reasons.

Firstly, it can be considered a large sector, with the global textile market being valued around 1.11 trillion USD in 2024 (Mordor Intelligence, 2025). Furthermore, textile production is estimated to be responsible for about 20% of global clean water, and an increasingly large amount of plastic pollution, as described by the European Parliament (2024). One of the culprits for this high-level of pollution is the fast-fashion trend which has continued in recent decades (Niinimäki et al., 2020). Lastly, the textile industry has a large impact on markets all around the world, both in political and strategical sense, but also in environmental sense (Fernandez-Stark et al., 2022).

Within this textile manufacturing sector, in the EU, 22 CEO letters were retrieved from the chosen companies. These were chosen since the information could be accurately found and extracted from the Bloomberg ESG summaries. From the letters, a total of 133 excerpts were extracted and coded. As can be seen in Appendix 2, 31 excerpts were classified as Honesty-Humility. Additionally, 27 excerpts were classified as Openness and 75 excerpts were classified as Conscientiousness.

3.4 Categories

The three categories had to be more narrowly defined to be able to use the traits for content analysis. To integrate personality traits into the analysis, the three selected HEXACO dimensions Honesty-Humility, Openness to Experience and Conscientiousness were operationalized using a set of defined facets. This narrowing is necessary to make sure that the same pieces of phrase, texts and words are used to define the presence of a personality trait within the CEO letter. The trait definitions were derived from Ashton & Lee's (2008) conceptualization of HEXACO. This literature provides an established framework for understanding personality traits and their dimensions. Therefore, Honesty-Humility comprised the following terms "sincere, honest, trustworthy, giving, kind, warm-hearted, humble, helpful, loyal, compassionate, good-hearted, modest, transparent". Additionally, Openness to experience comprised "philosophical, insightful, complex, deep, introspective, articulate, inquisitive, unconventional, perceptive, analytical, innovative, intuitive".

Conscientiousness comprised “organized, thorough, hard-working, efficient, self-disciplined, careful, tidy, proper, diligent, studious, meticulous, responsible”.

3.5 Inter-rater agreement

To ensure the reliability of the categorization process, an inter-rater agreement procedure was implemented. Specifically, approximately 20% of the total excerpt sample randomly selected from the full dataset of CEO letters, was independently coded by a second rater. This amounted to 25 excerpts which were previously classified according to the three personality traits. The second rater was provided with the dictionary of categories (Appendix 3) supported by examples and boundary cases, to enhance consistency. Both raters assessed the same excerpts independently, and each trait was coded as either 1, 2 or 3. These pairings were run through the program SPSS and analysed, using Cohen’s Kappa coefficient as measure. The Kappa values of the inter-rater agreement were interpreted by using the scale provided by Landis and Koch (1977), where: < 0 indicates less than chance agreement; 0.00 – 0.20 indicates Slight agreement; 0.21 – 0.40: Fair agreement; 0.41 – 0.60: Moderate agreement; 0.61 – 0.80: Substantial agreement; and 0.81 – 1.00: Almost perfect agreement.

The inter-rater analysis (seen in Appendix 6) yielded a Cohen’s Kappa value of 0.740, with a significance level of $p < 0.01$ which indicates substantial agreement, thus supporting the robustness and reliability of the categorization procedure used in this study.

4. Results

Results will cover firstly the descriptive analysis which is based on calibrated means. The calibrated values can be found in the table within Appendix 4, and it was made based on the guidelines of Pappas and Woodside (2021), ensuring validity and consistency. Afterwards, the test of the propositions is shown based on the configurations found and other indicators produced by fsQCA.

4.1 Descriptive analysis

On average, personality traits are substantially inferable from the letters to the shareholders as the means, albeit moderately low, are far from being zero. Zero would indicate that none of the written content had any indication that could be used to infer any trait. The most frequent trait found is Conscientiousness (M=0.486, SD=0.297) followed by Openness and Honesty-Humility. As shown in table 4.1, ESG scores for the 22 companies, after recalibration, achieved a moderate value (M=0.475, SD=0.287) which means most companies fall slightly below the cutoff that separates high ESG group from the other groups. This matches the raw scores analysis as the means are respectively E(3.5), S(3.1), and G(6.2), which correspond to moderate-to-low, and relatively high scores. Overall, the sample does not excel in ESG scores but rather it shows a modest performance. Still, the sample comprises companies that widely vary their score, therefore providing variance to produce robust analysis.

Table 4.1: Descriptive fsQCA

Variable	Mean	Std. Dev.	Minimum	Maximum	N	CasesMis
Honesty-Humility	0.282	0.253	0	1	22	0
Openness	0.307	0.376	0	1	22	0
Conscientiousness	0.486	0.297	0	1	22	0
ESG	0.475	0.287	0	1	22	0

4.2 Proposition testing

As outlined in the data analysis strategy, fsQCA is the chosen method for proposition testing due to being highly suitable for addressing causal complexity, where combinations of causal conditions may lead to the same outcome (Ragin, 2008).

4.3 Necessary conditions for high ESG scores

According to Ragin (2008) and Schneider and Wagemann (2010), the initial step in the fsQCA is to analyze if there is any cluster that returns in every solution, which means that the influence

of the traits is so great that it is considered a necessary condition. In other words, do any of the single conditions (e.g., H-H, O or C) always appear when finding high ESG scores? Necessary conditions would be the traits that are present in all the solutions thus eliminating the need to include them. According to these authors all conditions presenting a consistency above 0.90 (≥0.90) are considered “Necessary” and should then be removed from subsequent analyses.

Table 4.2: Necessary conditions

	ESG		Environmental		Social		Governance	
Conditions tested	Cons.	Cov.	Cons.	Cov.	Cons.	Cov.	Cons.	Cov.
Honesty-Humility	0.531	0.894	0.483	0.798	0.591	0.927	0.463	0.782
Openness	0.456	0.705	0.466	0.704	0.475	0.684	0.388	0.601
Conscientiousness	0.780	0.761	0.757	0.749	0.802	0.729	0.707	0.692

Note: Cons.=consistency; Cov.=coverage

As can be seen in table 4.2, none of the traits have a consistency which is higher than the theoretical threshold of 0.90. This means that all the traits remain in the analysis for the truth table analysis. Another noticeable difference can be seen in the higher consistency score of Conscientiousness of 0.78. This trait is found in the solutions more consistently and comes close to being a necessary condition, not getting there completely. In the individual score comparison of E, S and G, none of these individual traits stand out when looking at the consistency numbers. Therefore, none of the traits are a necessary condition.

4.4 Truth table analysis

The truth table analysis is used to identify sufficient configurations to draw conclusions from. After constructing the truth table for the outcome of “ESG rating” each configuration of conditions was evaluated using three key metrics: Raw consistency, Proportional Reduction in Inconsistency (PRI) consistency, and symmetrical (SYM) consistency. Configurations not represented in the empirical dataset (i.e. those with no cases) were excluded from further analysis (see table 4.3).

Subsequently, a two-step consistency threshold was applied to refine the solution space. First, configurations with a raw consistency score below 0.85 were removed, in line with recommendations by Ragin (2008) and Mattke et al. (2022), who advocate for this threshold to ensure the reliability of causal inferences. Second, configurations with a PRI consistency score below 0.70 were also excluded. While a PRI consistency of 0.75 or higher is often

preferred. However, Greckhamer et al. (2018) note that a lower threshold, such as 0.70, remains acceptable in exploratory research contexts.

Table 4.3: Truth table ESG

H-H	O	C	raw consist.	PRI consist.	SYM consist.
1	0	0	1	1	1
1	1	1	0.878	0.716	0.686
0	1	1	0.859	0.707	0.707
0	0	1	0.778	0.458	0.493
0	0	0	0.482	0.124	0.139

This means that below, table 4.4 contains the configurations which adhere to the thresholds previously explained. Therefore, the solution derivation will progress with the following configurations.

Table 4.4: Sufficient solutions for ESG

H-H	O	C	Raw consist.	PRI consist.	SYM consist.
1	0	0	1	1	1
1	1	1	0.878	0.716	0.686
0	1	1	0.859	0.707	0.707

Both the intermediate and the complex solutions will be used for solution derivation in this case. As both values are equal, this can be done in a valid manner and reinforces the results.

The truth table analysis, formatted into table 4.5, reveals two distinct configurations of CEO personality traits that are associated with high ESG performance. The findings suggest that a combination of both H-H and C will consistently lead to high ESG scores.

With a consistency of 0.929, higher than the desired (>0.75) as put forward in the article by Cangialosi et al. (2023). It also explained 47.4% of the outcome (unique coverage = 21.2%). This demonstrates that a certain type of ethical, reliable and diligent leader is particularly effective in stimulating ESG performance.

Table 4.5: Truth table analysis ESG

Configuration	Raw coverage	Unique coverage	Consistency
H-H*C	0.474	0.212	0.929
O*C	0.410	0.148	0.760
Total solution	0.622		0.828

The weaker second configuration O*C showed lower consistency at 0.76, and consequently lower unique coverage (15%). Overall, the total solution explains approximately

62% of the cases. The solution also stays acceptable within the consistency thresholds (= 0.828). The findings underscore the critical role of Conscientiousness.

4.5 Individual E, S and G

Following the same procedure for each individual E, S and G, as conducted previously for the general ESG fsQCA. Meaning that initially, the truth table must consist of configurations which adhere to the thresholds of raw consistency (≥ 0.85) and PRI consistency (≥ 0.70). After the relevant configurations are kept in, the truth table analysis can be performed.

For the Environmental (E) dimension, the truth table identified two sufficient configurations of CEO personality traits leading to high environmental performance (see table 4.6). Both configurations meet the methodological thresholds for raw consistency and PRI consistency, showing robust relationships.

Table 4.6: Sufficient solutions for E

Dimension	H-H	O	C	raw consist.	PRI consist.	SYM consist.
E	0	1	1	0.859	0.736	0.736
	1	0	1	0.875	0.760	0.760

Additionally, as can be seen in table 4.7, the first configuration (H-H*C) combines high Honesty-Humility with high Conscientiousness and shows a raw consistency of 0.839 and unique coverage of 17.5%, meaning that this combination reliably predicts high environmental performance for a notable subset. The second configuration (O*C) reflects a combination of high Openness and high Conscientiousness, with a raw consistency of 0.784 and unique coverage of 17.2%.

Overall, these two configurations together explain about 61% of high-performing environmental cases (raw coverage = 0.610), with a total solution consistency of 0.799. These findings indicate the central role of Conscientiousness in achieving strong environmental performance, supported by either Honesty-Humility or Openness depending on the context.

Table 4.7: Truth table analysis for E

Configuration	Raw coverage	Unique coverage	Consistency
H-H*C	0.438	0.175	0.839
O*C	0.435	0.172	0.784
Total solution	0.610		0.799

For the Social (S) dimension**,** none of the tested configurations reached the required PRI threshold in the truth table. This indicates that no robust configurations of CEO personality traits were identified that explain high social performance.

Table 4.8: Non-sufficient solutions for S

H-H	O	C	raw consist.	PRI consist.	SYM consist.
1	0	1	1	1	1
1	0	1	0.910	0.670	0.703
1	1	1	0.843	0.603	0.603

In the sequence after, the configuration H-H*C has a steady raw coverage, and additionally a strong consistency level. However, since PRI consistency earlier does not meet the required threshold, the truth table analysis for the social dimension does not mean much. It could be the case here, that a sub 0.7 PRI consistency means that this configuration also appears in low-S cases. That means that it is not a sufficient path and should be considered invalid

For the Governance (G) dimension, the truth table identified one sufficient configuration of CEO personality traits leading to high governance performance (see table 4.9). The single configuration meets the methodological thresholds for raw consistency and PRI consistency, showing a robust relationship.

Table 4.9 Sufficient solutions for G

H-H	O	C	raw consist.	PRI consist.	SYM consist.
1	0	1	0.938	0.740	0.740

Table 4.10 Truth table analysis for G

Configuration	Raw coverage	Unique coverage	Consistency
H-H*~O*C	0.306	0.306	0.939
Total solution	0.306		0.939

As can be seen in table 4.10, the configuration (H-H*~O*C) shows a unique coverage of 30.6%, combined with a consistency of 93.9% meaning that this combination reliably predicts high governance performance. In this case it shows a high level of Honesty-Humility, low level of Openness and high level of Conscientiousness. This indicates that a high governance performance is tied closely to a CEO style of management which is less experimental and rightfully chooses the proven approaches. Being the only meaningful configuration in the truth table, this means that the total solution also explains 30.6% of cases, with the same consistency of 93.9% as the single configuration showed.

5. Discussion

This chapter discusses the findings of the fsQCA in relation to the propositions, relevant theoretical frameworks, and existing literature. The goal is to interpret how CEO personality trait configurations, operationalized through the HEXACO framework, influence ESG performance of an organization across the environmental, social, and governance dimensions and to explore the managerial and theoretical implications. This is done with brands and companies within the European textile industry.

Building on Upper Echelons Theory (Hambrick & Mason, 1984), the study assumed that executives' relatively stable dispositions function as interpretive filters, shaping organizational outcomes in ambiguous and high-discretion domains such as sustainability. Trait Activation Theory (Tett & Burnett, 2003) further provided the rationale for why specific personality dimensions are expressed more strongly in ESG contexts: sustainability-related challenges provide situational cues that activate certain traits, making them salient in leadership behavior. To capture the configurational nature of personality, the study applied fuzzy-set Qualitative Comparative Analysis (fsQCA), which allows for the identification of combinations of traits that are sufficient for producing high ESG outcomes, rather than relying on additive or single-trait models.

The analysis produced several noteworthy findings. First, Conscientiousness emerged as the most consistent driver across ESG outcomes. Regardless of whether combined with Honesty–Humility or Openness, Conscientiousness appears to underpin higher ESG performance. This highlights the importance of diligence, accountability, and reliability in contexts where organizations must respond to stakeholder expectations and achieve long-term sustainability goals. Second, both Honesty-Humility and Openness added explanatory value, but their influence varied depending on the ESG dimension. When paired with Conscientiousness, Honesty-Humility supported environmental outcomes, suggesting that ethical orientations strengthen leaders' ability to stimulate ESG practices. Openness, in turn, reinforced environmental outcomes when combined with Conscientiousness, highlighting the value of innovative and forward-looking leadership.

Overall, the findings confirm the centrality of executive dispositions for ESG outcomes while demonstrating the value of a configurational approach, as supported in the research by Moynihan & Peterson (2001). The findings provide empirical support for both UET and TAT by showing that leaders' trait profiles matter, but also that situational contexts determine which traits are portrayed the most. The following sections elaborate on the findings for each ESG dimension in greater detail. Discussing each individual dimension (E, S and G) will provide more insight into the greater workings of personality traits, and within what context these traits will be relevant.

Propositions

P1: H-H, O and C will be each included in at least one configuration with predictive power on ESG performance

P1a: H-H will be each included in at least one configuration with predictive power on ESG performance

P1b: O will be each included in at least one configuration with predictive power on ESG performance

P1c: C will be each included in at least one configuration with predictive power on ESG performance

P2: Perceived CEO Conscientiousness is the most activated trait in relation to ESG performance

P3: Perceived CEO Honesty-Humility is the second most activated trait in relation to ESG performance

P4: Perceived CEO Openness to experience is the least activated trait in relation to ESG performance

Starting with the Environmental dimension, a few things stand out when interpreting the results. As can be seen from the configuration in this section, combining high H-H with high C shows that this is a reliable predictor for a high environmental performance. This means that diligent and ethical CEOs are strongly linked to higher environmental scores. This aligns with prior work suggesting that integrity and fairness underpin pro-environmental decision-making (Lee, Ashton, & de Vries, 2019). In the second configuration, high Openness is combined with high Conscientiousness. This shows that Conscientiousness is the common denominator, and depending on the context, a combination of Conscientiousness with either Openness or Honesty-Humility, shows that it is a drive for environmental performance of the organization.

Secondly, within the Social dimension, a few aspects should be discussed. Firstly, it should be noted that no configurations did satisfy the methodological threshold for PRI consistency (≥ 0.70). As mentioned before, this indicates that while these configurations often co-occur with high social performance, they also frequently appear in cases with low social scores, making them non-robust predictors. A few suggestions can be made to explain this. Namely, the social dimension within ESG may depend on multiple factors beyond CEO personality such as corporate or organizational culture.

Furthermore, social performance encompasses issues such as employee relations, diversity, and community engagement, which may activate different personality traits. For example, Agreeableness, reflecting interpersonal sensitivity and empathy, may be more

relevant for explaining social outcomes than the traits examined in this research. This will be extensively discussed in the Limitations section.

Lastly, the Governance dimension**,** which revealed a somewhat surprising configuration. In this final analysis, a configuration stands out which shows a low level of Openness associated with higher performance on governance. Regarding the context of governance, which is in this case European textile companies, it can be assumed that following formal regulations and having to manage board structures and additional risk management leads to a personality trait profile which shows less Openness to perform well on governance aspects. Strong governance frameworks lean on a strong structure, suggesting that a conservative leadership style is good for performance on governance.

The per-dimension analysis highlights a relevant conclusion. Conscientiousness is the key driver among all ESG dimensions. Depending on the context of the dimension, it is partnered with other traits. Tying into the trait activation theory, these findings suggest that the different context of each E, S and G dimensions activate different leadership behaviors and makes leaders portray different traits.

6. Conclusion & Recommendations

This research sets out to examine how CEO personality trait configurations, operationalized through the HEXACO framework, relate to firms' ESG performance in the European textile industry. The study applied a configurational approach using fsQCA to analyze CEO to stakeholder letters and additionally used Bloomberg ESG ratings. The analysis aimed to move further than just trait-by-trait predictions of leadership effects by uncovering if and how configurations of Honesty–Humility, Openness, and Conscientiousness are relevant for explaining high (and low) ESG outcomes.

6.1 Main findings

The results demonstrate that Conscientiousness is the central driver of ESG performance. Across multiple solutions, it consistently appeared as a core condition, either in combination with Honesty-Humility or with certain levels of Openness. This underscores the value of diligence, reliability, and self-discipline in contexts where firms face regulatory scrutiny, reputational pressure, and long-term sustainability challenges.

Two viable trait configurations proved to be consistent for high ESG scores, mainly: 1) H-H + C, showing that ethical and diligent leaders can engage in high performance ESG outcomes with integrity and accountability, and 2) O + C, representing a more innovative and diligent leader, who can couple strategic visions with the ability to explore new solutions, also closely related to high performance ESG outcomes.

6.2 Theoretical & practical contributions

When discussing the theoretical and practical contributions of this research, a few things stand out. Firstly, the theoretical contributions will be mentioned. Since the ESG domain is a multi-dimensional construct, personality traits that support environmental performance may not directly predict or influence social or governance outcomes in similar ways. This is in line with UET, and this study extends the theory in the sense that CEO dispositions are not only influential for strategic or financial outcomes, but also within the sector of ESG. Specifically, the context is different across all three individual E, S and G domains. Additionally, this research shows that different traits are relevant in different contexts too. This resonates with TAT (Tett & Burnett, 2003), and extends this theory by concluding that different E, S and G dimensions require or activate different leadership traits.

Furthermore, the application of fsQCA shows the value of treating personality traits as interdependent configurations rather than isolated predictors, as also supported by the research done by Zaccaro (2007) and equally supported in the research by Moynihan & Peterson (2001). While Conscientiousness consistently emerged as a central driver, its explanatory power comes from how it combines with Honesty-Humility or Openness. This

provides empirical support for configurational approaches to leadership research, challenging linear trait models, and thus building a perspective for future research.

When discussing practical contributions, one of the foremost suggestions is that organizations, or boards and committees, should not only consider individual traits when assessing candidates. It should mainly depend on the goals and vision of the organization, to evaluate the personality profile of a candidate and make a choice based on this profile. An organization which is focused on building a strong governance structure should look into different CEO personality traits compared to an organization that is looking to improve in the environmental domain. The findings suggest that boards need to align leadership traits with their strategic priorities, both financially and within ESG domains.

6.3 Limitations and future research

There are a few limitations which should be discussed regarding this research.

Initially, results suggest that due to their context-dependent nature, it could be beneficial to dive deeper on the broader spectrum of personality traits, including traits like Emotionality (Neuroticism) or Agreeableness, to test if different configurations with these personality traits can better predict or describe organizational ESG performance from different types of leaders within these organizations. For example, in the case of Social performance within ESG, it can be assumed that traits like Agreeableness have a strong influence on how a leader will behave within such a context, and thus differently influence the Social performance of an organization.

Secondly, although fsQCA can be robust with small sample sizes, it is always advisable to integrate larger samples, especially if there are many variables that are comprised in the configurations.

Thirdly, ESG scores were drawn from a single provider, Bloomberg. These different types of ESG rating organizations have faced scrutiny in the past years, mainly due to possible unreliable or invalid scores. Therefore, it could improve the validity of this research if an aggregate score would have been assembled of all notable ESG rating organizations.

Furthermore, drawing on UET research (Hambrick & Mason, 1984), CEO effects are stronger when there is managerial discretion and there are boundary conditions. A seminal cross-country study portrays that national organizations systematically change managerial discretion, which in turn has an effect on how much impact CEOs have on performance (Crossland & Hambrick, 2011). CEO effects are stronger in institutional environments with dispersed ownership, common-law legal origins, cultural looseness, and higher tolerance for uncertainty; they are weaker where constraints from stakeholders and institutions are tighter. Translating this to ESG: in contexts with more sustainability regulation or powerful stakeholder oversight, CEO latitude to imprint personal values on ESG strategy may narrow; in looser regimes, executive dispositions may be larger in shaping ESG posture. This is an important

aspect to consider when regarding future research within this domain. Previewing boundary conditions may uncover different patterns of association.

Additionally, for future research, it could be interesting to expand the research to longitudinal designs. With this methodology, more insight can be gained whether CEO personality traits and leadership development shift the ESG trajectories of their respective organizations over time. Finally, combining configurational methods with advanced text analysis (e.g., analysis tools like NLTK, or sentiment analysis) could deepen and solidify the measurement of CEO traits in communication to stakeholders. Likewise, as stated, larger samples offer higher chances of dealing with more cases for each theoretical configuration. Still, larger samples can mean more heterogeneity due to corporations originating from contrasting contexts, e.g. European textile versus Asiatic textile firms. This may offer the illusion of being one sample, although treating as such (instead of two samples) may introduce unaccounted confounding variables.

6.4 Conclusion

In conclusion, these findings portray that CEO personality trait configurations matter for firms' ESG performance, mainly in industries that are facing large environmental and reputational pressures. Conscientiousness is one of the backbones of effective leadership, with Honesty-Humility and Openness providing more context-related solutions. These insights extend previous literature and existing theories of leadership traits in different contexts

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8. Appendices

Appendix 1: Letter and company list

note: legend with L1-L22 identifies company

Letter #	Company name	Annual report year
L1	Swatch	2023
L2	Bjorn Borg	2023
L3	Ferragamo	2023
L4	Puma	2023
L5	Dior	2023
L6	Adidas	2023
L7	Hugo Boss	2023
L8	Burberry	2023
L9	Dr. Martens	2024
L10	Bruno Cucinelli	2023
L11	CCC	2023
L12	Coats	2023
L13	Hermes	2024
L14	New Wave	2023
L15	Nilorn	2023
L16	Pandora	2024
L17	OVS Spa	2023
L18	Moncler	2023
L19	Prada	2023
L20	Safilo	2023
L21	SCMP	2023
L22	Calida	2024

Appendix 2: Frequency table

Frequency table of personality traits per letter (L1-L22)

Subcategory	Honesty-Humility	Openness	Conscientiousness
L1	3	4	5
L2	3	4	4
L3	2	1	3
L4	3	0	4
L5	0	1	2
L6	5	0	4
L7	1	4	5
L8	1	0	2
L9	0	2	3
L10	2	1	7
L11	2	4	7
L12	2	3	5
L13	1	0	1
L14	0	0	0
L15	0	1	4
L16	2	2	7
L17	1	0	1
L18	2	1	4
L19	0	0	4
L20	0	0	2
L21	1	0	1
L22	1	0	0
TOTAL	**31**	**27**	**75**
%	**23.3%**	**20.3%**	**56.4%**

Appendix 3: Example excerpt tables

Table Honesty-Humility Excerpts

Pers. trait	Letter	Subcategories	Excerpt	F	N
H-H		**Humble**	“when we all work together”		
	L3		“For all of this, I would like to thank the entire team led by Marco Gobbetti who, with love, dedication, tenacity, and enthusiasm”		
	L4		“I would like to thank everybody in the PUMA family – our employees, our wholesale partners, our suppliers, our ambassadors and athletes – for their contribution and dedication to the company.”		
	L6		“I don’t know if I changed so much”		
	L11		“I would like to extend my heartfelt gratitude to all our stakeholders for your steadfast determination and dedication to our shared goals.”		
	L18		“Even if our efforts have been recognized externally by major global ESG rating agencies, we know that there is much more to achieve.”		
	L2	**Sincere**	“This would not have been possible without our dedicated employees who constantly push forward and fight to achieve our goals.”		
	L10		“In our pursuit of sustainable growth ... that harmoniously support human creativity.”		
	L2	**Warm-hearted**	“I am very impressed by our team, which during a challenging year created good growth”		
	L12		“All 15,000 permanent employees in Coats have played a crucial role in the success of the business and are worthy recipients of this prestigious award”		
	L4	**Transparent**	“Winning in the United States is another key strategic priority. It’s the biggest and most important global sports market but our market shares are currently too low.”		
	L6		“At the beginning of the year, we had little success when it comes to the sell-through of our product”		
	L6		I just think we were not visible and maybe not commercial enough in the way that we went to market. And we’re reversing a lot of that as we speak.”		

	L6		“One thing we clearly need to continue to tackle is our internal complexity. Although we increased our agility, it still takes us too long to make decisions.”		
	L10	**Compassionate**	A deep feeling that is ... between body, mind and soul.”		
	L7	**Trustworthy/loyal**	“Our nearly 19,000 employees make HUGO BOSS stronger, more sustainable, and more resilient.”		
	L2		“together with the team, our brand is our most important asset”		
	L2		“it is the people who make the difference”		
	L4		“Putting our people first is an important part of our corporate strategy and we were thrilled to be named a global Top Employer in 2023.”		

Definition or facets per trait: (Ashton & Lee, 2008)
Honesty-Humility - Sincere, honest, trustworthy, giving, kind, warm-hearted, humble, helpful, loyal, compassionate, good-hearted, modest, transparent

Table Conscientiousness Excerpts

Pers. trait	Letter	Subcategories	Excerpt	F	N
CON	L1	**Responsible**	“have a responsibility to play a proactive role in preserving our planet for future generations.”		
	L1		“but also to create jobs and thus open up positive prospects.”		
	L2		“Our focus on stimulating growth, while at the same time running a more sustainable business and reducing our carbon dioxide emissions, continued in 2023.”		
	L2		“shared interest in training and well-being.”		
	L5		“substantially ramped up all the Group’s initiatives to protect natural habitats, preserve biodiversity and take a circular economy approach to our use of resources.”		
	L7		“we want to address the biggest challenges within our industry: among others, we are intensifying our efforts by pushing zero emissions, fighting microplastics, and increasing circularity.”		
	L7		“and show how we want to contribute to creating a planet free of waste and pollution.“		

	L8		“I am proud that we have also continued to advance our sustainability agenda this year, particularly in the areas of responsible sourcing, circular business models, net zero and inspiring young people.”		
	L10		“We firmly believe that finding the right balance between work and personal life, between contributing to the common good and taking care of our own spirituality is the foundation for creating a humanly prosperous community.”		
	L10		“In our pursuit of sustainable growth, we have always kept our central focus on the fundamental values of our company: respect for beauty, human dignity and work, the search for fair profit, protection of traditions and the search for innovations and technology that harmoniously support human creativity.”		
	L10		they have supported us when we had to make important decisions, have inspired our actions targeted towards protecting human dignity and all of creation.”		
	L10		“A deep feeling that is able to guide sensitivity towards people who need help, to indicate the way towards a correct balance between profit and giving back, to find a harmonious and fruitful balance between body, mind and soul.”		
	L10		“We have also taken on the objective of contributing towards improving the climate of our plant with a major plan for the reduction of CO2 emissions.”		
	L11		“Our efforts in social and environmental responsibility stand as a testament that it is possible to act for the betterment of society and the environment even in challenging times.”		
	L11		“I look forward to working together and hearing new ideas to help us reach our goals. Together, we can create a brighter future for everyone.”		
	L13		“its commitment to training – with its 10 Écoles Hermès des savoir faire – and to raising awareness – with the Manufacto programme run by the Fondation d'entreprise Hermès in 96 schools – all contribute to job creation, to safeguarding and promoting craftsmanship, and to regional development.”		
	L15		“Nilörn focuses on being a leading sustainability actor, guiding its customers to choose a more sustainable label and packaging setup.”		

	L16		“Sustainability remains a fundamental pillar of the Phoenix strategy.		
	L19		“As we set the ambition of being “Drivers of Change”, we committed to evolve in every aspect of our business, becoming a more inclusive employer and a more sustainable manufacturer, as well as promoting educational initiatives for the next generation.”		
	L21		“These specifically include the acceleration of CSR commitments with ambitious objectives such as the reduction of carbon emissions, developing traceability and second-hand, the use of more responsible materials for collections and the deployment of a global Diversity and Inclusion policy.”		
	L1	**Dilligent**	We have achieved important goals in terms of waste reduction, the sustainable use of resources, and the promotion of fair working conditions.”		
	L1		“not letting this distract us from our long-term strategic path.”		
	L3		“Creating, re-imagining, being style icons and innovating, while remaining true to our core values: Innovation, Creativity, Craftsmanship, Sustainability, Authenticity, Independence, and the Italian spirit are the basis of our development process.”		
	L4		“To constantly improve our global distribution quality, we worked closely with our wholesale partners to give them the best possible service and make our products stand out in a multibrand environment.”		
	L4		“Our partnership approach also applies to our sourcing strategy, which is based on the long-term cooperation with our suppliers along the entire value chain.”		
	L6		“As a management team, it is our goal to do things short term that are also right long term. We are not trying to impress anybody short-term by doing something stupid in one quarter to look good that has a negative impact maybe in a year’s time.”		
	L7		“we remain particularly vigilant while, at the same time, continuing to push ahead with our strategy execution.”		
	L9		“We continue to make significant strides in sustainability. Our Science Based Targets were verified and approved by the Science Based Target Initiative in October. We have committed to reducing our absolute greenhouse gas emissions aligned with the		

			Science Based Targets initiative to achieve near-term reduction targets by 2030 and Net Zero by FY40.”		
	L11		“Some of our objectives had to be temporarily sidelined as we prioritised key areas of our operations. But even amidst these headwinds, our long-term vision of sustainable development remains unwavering.”		
	L12		“In 2022, we announced new sustainability targets for 2026 that will keep us firmly on a path to meet our 2030 goal of reducing emissions by 50% and reach our carbon Net-Zero goal by 2050. We made significant progress on both a strategic and tactical level this year with the opening of a state-of-the-art sustainability hub.”		
	L16		“We have reduced CO2 emissions across our value chain by 17% since 2019, while growing the company by 45%. We aim to cut emissions by 50% by 2030 and reach net zero by 2040.”		
	L16		“In 2024, we made progress towards achieving gender parity in leadership by 2030, with 35% women at VP-level and above.”		
	L17		“Our commitment to decarbonisation continues in order to achieve goals approved by the Science Based Targets initiative, guiding company strategies on the evolution of the materials portfolio and store energy efficiency.”		
	L18		Sustainability remains key for our Group, as we continue to integrate social and environmental elements into our business model.”		
	L19		“We are mindful of this, and we will continue to navigate at pace, being ready to change course should unexpected tides occur.”		
	L20		“We therefore continue to work, focused on our main objective: the growth and sustainability of our business in the long term.”		
	L4	**Efficient**	“we need to focus on building the emotional connection between our brand mantra FOREVER. FASTER. and our consumers”		
	L6		“I am pleased to see that our teams have now connected much better with the market, both with retailers and with the consumer.”		
	L12		“This aligns with our support and development initiatives that encourage the level of engagement required to be one of		

			the very best workplaces, enabling Coats to connect talent, textiles and technology.”		
	L15		“Nilörn has developed digital products and systems to increase efficiency and sees sustainability as a driving force.”		
	L3	**Organized**	“So, we have always felt privileged to be able to operate from this extraordinary place, and we are proud that our people continue to find so much of their inspiration here.”		
	L4		“For PUMA, 2023 was also a transition year in which we outlined new strategic priorities to create the foundation for the continued strong growth of the company.”		
	L8		“We have a clear strategy to achieve our vision across brand, product and distribution, supported by operational excellence, people and talent, values and sustainability.”		
	L16		“Compact and will continue to embed sustainability in our business activities, reflecting our belief that responsible growth is key to long-term success.”		
	L20		“our sustainability strategy also reached another accomplishment through the presentation of our medium-term objectives, an official commitment also for our scope 1, 2 and 3 greenhouse gas reduction targets, which we decided to validate with the Science Based Target initiative, receiving a positive response this February.”		
	L2	**Hard-working**	“where everyone can reach their full potential and become the best version of themselves.”		
			“as our people and teams are essential for the ongoing success of HUGO BOSS.”		
	L12		“Grit, energy, tenacity and resilience of our employees is coupled with modern tools, processes and programmes to deliver value to customers, shareholders and other stakeholders.”		

Conscientiousness - Organized, thorough, hard-working, efficient, self-disciplined, careful, tidy, proper, diligent, studious, meticulous, responsible

Table Openness Excerpts

Pers. trait	Letter	Subcategories	Excerpt	F	N
OPEN	L1	**Analytical**	“on innovation – over 180 new patents were added in the past financial year”	11	

	L1		“Last year, the Group invested over 300 million Swiss francs in innovative new production equipment”		
	L1		“For example, we invested around 20 million Swiss francs in a clean room for watches with solar cells”		
	L2		“Our suppliers continued to switch to solar energy during 2023.”		
	L3		“2023 is the year we improved our ESG ratings and updated our Sustainability Plan, setting important new environmental, social and governance goals.”		
	L7		“Our Digital Campus therefore also plays a key role in further enhancing the digital experience across all touchpoints.”		
	L11		“Our upcoming initiatives include bolstering energy efficiency measures, curbing energy consumption, transitioning towards renewable energy sources, and collaborating closely with our suppliers to achieve our set reduction targets.”		
	L12		“Our 100% Recycled EcoVerde Neophil product received validation from key customers across the Automotive sector, solidifying its position as an environmentally conscious industry leader.”		
	L15		“Nilörn:CONNECT, each garment receives a unique identity that is traceable, allowing brands to communicate with end consumers and enhance traceability and transparency”		
	L16		“In August, we achieved a significant milestone in circularity by transitioning all our crafting to 100% recycled silver and gold.”		
	L18		“Our collections are including more and more recycled, organic and other certified materials, and we continue to collaborate with our supply chain to make larger scale improvements.”		
	L1	**Insightful**	“we are creating new markets with new customers”		
	L2		“We therefore offer regular joint training sessions as part of our work culture.”		

	L2		“All our electricity came from wind power and heating/cooling from an aquifer.”		
	L7		“We pour all our passion into driving brand relevance for BOSS and HUGO with innovative marketing and product initiatives.”		
	L11		“We are optimising our order levels, introducing new brands of footwear and accessories crafted from alternative materials, and rigorously researching and testing innovative materials to ensure our products maintain the high quality and durability our customers expect.”		
	L16		“Our dedication to fostering an inclusive, diverse and fair culture remains central to our business.”		
	L2	**Philosophical**	“I was particularly proud that our bestselling training products were made from recycled polyester.”		
	L5		“ Another of our long term commitments is to sustainability, reflected in our lasting and growing support for environmental initiatives”		
	L10		“committed to improving the spaces in which we live and work, to restoring a significant link between human creations and the natural environment, opting, where possible, for regeneration instead of expansion at the expense of nature.”		
	L11		“Our aim is to transform it into a robust solution that tangibly reduces landfill waste. We are pioneers in this endeavour.”		
	L7	**Unconventional**	“We are not only modernizing and further optimizing our store network, but also offering exciting pop-ups and hospitality experiences.”		
	L9		“Represents the pinnacle of our creative expression, with cutting-edge innovation at the forefront while still remaining true to our product handwriting and design principles of durability and versatility.”		
	L9		“In March we launched our own resale offering in the USA, named ReWair. We repair and restore		

			second-hand Dr. Martens products and sell them through a directly run dedicated resale site. ReWair is an important part of our Net Zero by FY40 target as the carbon generated from a resale is substantially lower than a new product."		

Openness - Philosophical, insightful, complex, deep, introspective, articulate, inquisitive, unconventional, perceptive, analytical, individualistic, intuitive

Appendix 4: ESG ratings and calibrated ratings

This table consists of the individual E, S and G scores, as well as the general ESG score, from Bloomberg, obtained on 5 May 2025. First 3 columns shows ESG scores, consecutive 3 columns are calibrated ESG scores, with 1 being highest and 0 being lowest. In the last 2 columns you can find the general ESG score and the calibrated variant.

Company ticker	E	S	G	CAL_E	CAL_S	CAL_G	ESG	CAL_ESG
Swatch Group – UHR SW	1.88	3.06	4.09	0.16	0.44	0.08	2.86	0.22
Bjorn Borg – BORG SS	4.38	5.20	6.35	0.65	0.76	0.5	5.28	0.76
Ferragamo – SFER IM	4.87	5.30	6.82	0.75	0.77	0.59	5.53	0.81
Puma – PUM GY	5.53	3.99	6.86	0.89	0.58	0.6	5.28	0.76
Dior – CDI FP	1.10	1.48	5.51	0.00	0.2	0.34	2.22	0.08
Adidas – ADS GY	4.71	5.79	5.61	0.72	0.85	0.36	5.34	0.77
Hugo Boss – BOS GY	5.38	6.80	7.24	0.86	1	0.67	6.38	1
Burberry – BRBY LN	3,73	2.42	8.27	0.52	0.34	0.86	4.26	0.53
Dr. Martens – DOCS LN	3.48	1.23	7.21	0.48	0.16	0.66	3.39	0.34
Brunello Cucinelli – BC IM	1.88	3.66	5.99	0.16	0.53	0.43	3.51	0.37
CCC – CCC PW	4.76	4.30	5.34	0.73	0.62	0.31	4.79	0.65
Coats Group – COA LN	5.49	2.04	9.01	0.88	0.28	1	4.87	0.67

Hermes – RMS FP	2.26	1.70	5.60	0.23	0.23	0.36	2.82	0.22
New Wave Group – NEWA B SS	1.47	0.15	4.82	0.07	0.00	0.21	1.84	0.0
Nilorn – NIL B SS	1.82	1.23	3.67	0.14	0.16	0.00	2.04	0.04
Pandora – PNDORA	6.09	3.98	7.53	1	0.58	0.72	5.79	0.87
OVS – OVS IM	1.10	2.06	5.85	0.00	0.29	0.41	2.52	0.15
Moncler – MONC IM	3.48	2.91	6.64	0.48	0.42	0.56	4.03	0.48
Prada – 1913 HK	4.42	4.78	5.46	0.66	0.7	0.34	4.83	0.66
Safilo – SFL IM	4.00	1.98	6.16	0.58	0.28	0.47	3.90	0.45
Calida – CALN SIX	1.46	1.98	6.22	0.07	0.28	0.48	2.73	0.2
SMCP – SMCP EN	3.88	1.86	6.46	0.56	0.26	0.52	3.68	0.41

Appendix 5: fsQCA input

The next table contains the input for the fsQCA, namely all calibrated (C) values, in the correct order for the program to run it.

The first three columns portray the individual calibrated score of each personality trait within our sample CEO letters. In the 4th column the general calibrated ESG score is portrayed. The company names are there purely for demonstration. In the fsQCA output no letters are allowed, so elimination is necessary before the analysis.

Company	**(C) H-H**	**(C) O**	**(C) C**	**(C) ESG**
Swatch Group	0.6	1	0.71	0.22
Bjorn Borg	0.6	1	0.57	0.76
Ferragamo	0.4	0.25	0.43	0.81
Puma	0.6	0	0.57	0.76
Dior	0	0.25	0.29	0.08
Adidas	1	0	0.57	0.77
Hugo Boss	0.2	1	0.71	1
Burberry	0.2	0	0.29	0.53
Dr. Martens	0	0.5	0.43	0.34
Brunello Cucinelli	0.2	0.25	1.00	0.37
CCC	0.4	1	1.00	0.65
Coats Group	0.4	0.75	0.71	0.67
Hermes	0.2	0	0.14	0.22
New Wave Group	0	0	0	0
Nilorn	0	0.25	0.57	0.04
Pandora	0.4	0.25	1.00	0.87
OVS	0.2	0	0.14	0.15
Moncler	0.4	0.25	0.57	0.48
Prada	0	0	0.57	0.66
Safilo	0	0	0.29	0.45
Calida	0.2	0	0.14	0.2
SMCP	0.2	0	0	0.41

Appendix 6: Inter-rater analysis

Symmetric Measures

		Value	Asymptotic Standard Error [a]	Approximate T [b]	Approximate Significance
Measure of Agreement	Kappa	.740	.121	5.119	<.001
N of Valid Cases		25			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.