When Performance Measures Backfire: Campbell's Law and the Implications for ESG Metrics

Kathleen Locklear
State University of New York at Oswego

According to Campbell's Law, when a quantitative measure is used as a performance target, that measure becomes susceptible to corruption pressure. When this happens, the metric distorts the process it was intended to measure. This paper applies Campbell's Law as a lens for examining these dynamics in the context of ESG (environmental, social, governance) metrics. The vulnerabilities of ESG metrics are identified, discussed and linked with specific risks. The result is a proposed, preliminary taxonomy which is relevant to a range of stakeholders. Theory and practice understanding of ESG are extended through the proposed taxonomy and its accompanying, suggested mitigation strategies.

Keywords: ESG metrics, disinformation, misinformation, risk

INTRODUCTION

The concept of ESG (environment, social, governance) was first introduced by the United Nations in its 2005 Freshfields Report. Since then, ESG has been receiving growing attention from a range of stakeholders and is largely viewed as a useful mechanism for advancing positive outcomes, including enhanced corporate governance, greenhouse gas reduction and improved labor practices. The positive impacts of ESG reporting are supported by a body of research which has found a positive relation between ESG and corporate financial performance (Cho, 2022; Friede et al., 2015; Melinda & Wardhani, 2020). An implicit assumption is that collecting and sharing ESG information can lead to attitudinal and behavioral changes that will, in turn, produce desirable results.

However, contrasting perspectives exist, and include research finding that ESG reporting has a negative impact on firm financial performance (Behl et al., 2021; Sadiq et al, 2020). Other research cautions that the process of ESG disclosure is wasteful in so far as it is used by management to increase firm value for self-serving benefits rather than to benefit stakeholders (Moller et al., 2015; Rohendi et al., 2024). A notable and recurring area of disagreement is the issue of how ESG performance is, and should be, measured (Borgers et al., 2013; vanBeurgen & Gössling, 2008).

Notably, and despite the large amount of focus that has been placed on ESG, today's most pressing environmental, social and governance issues remain unresolved. This is underscored by the negative attention ESG received at times, due to the occurrence of well-publicized ESG failures. Counted among those are a growing list of greenwashing allegations and Volkswagen's infamous 'diesel gate' scandal. Combined, these factors suggest a disconnect and inherent tension between ESG theory and practice. A key component of understanding this better involves interrogating the current state of ESG practice, including

how the collection and reporting of ESG metrics can backfire. This paper applies Campbell's Law as a lens for carrying out that work, resulting in findings that are relevant for both academics and practitioners.

Campbell's Law was first articulated by social psychologist Donald Campbell in his report *Assessing the Impact of Planned Social Change* (1976). In that report, Campbell proposed that "the more any quantitative social indicator (or even some qualitative indicators) is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor." (p. 49). Through an applied use of Campbell's Law, this paper focuses on ESG ratings systems and the metrics they utilize. That approach reveals the limitations and vulnerabilities of ESG metrics and ratings systems. While there is extensive literature on ESG metrics and ratings, there is a lack of scholarship that explores the intersection of Campbell's Law and ESG metrics. One objective of this paper is to help close that gap.

The findings from this paper take on greater importance in an environment where ESG has become a prominent trend in management (Li et al., 2023) and improving ESG performance has become a key objective for managers (Benjamin et al., 2023). The findings are relevant for a wide range of stakeholders, including investors and consumers whose decisions may be misled through use of unreliable ESG ratings and metrics (Liu et al., 2023). For that user group, ESG metrics are crucial for evaluating investment and purchasing options and to ensure their assessment has a high level of accuracy (Chauhan & Kumar, 2018). Academic researchers are stakeholders as well since they may be unknowingly using unreliable ESG metrics and ratings in their scholarly work (Benuzzi et al., 2025; Berg et al., 2022; Chatterji et al., 2016; Dorfleitner et al., 2015; Dorfleitner et al., 2025; Kathan et al., 2025). Each of these groups can benefit from understanding the limitations of ESG metrics along with the unintended consequences that can result from using them.

The remainder of this work is organized into four parts. Part one provides an overview of the origins, evolution and current state of ESG. In part two, Campbell's Law is introduced through a discussion of literature. This results in a proposed typology of 'distorting influences' that are the result of Campbel's Law in action. In Part three, Campbell's Law is applied to ESG. Implications are discussed, and a proposed typology of risks is presented. Mitigation strategies are suggested for those risks. Part Four discusses the managerial and scholarly implications of the paper. Recommendations are suggested for practitioners and researchers, along with areas for future study. The paper concludes in Part Five and includes discussion of some limitations of this work.

PART ONE: THE ORIGINS, HISTORY AND EVOLUTION OF ESG

A (Brief) History of ESG

The concept of ESG (environmental, social, and governance) can be traced to work initiated by former Secretary General of the United Nations, Kofi Annan. During his tenure at the UN, Annan invited a group of financial institutions to develop recommendations for integrating ESG issues into asset management, securities brokerage and other associated research functions. The work of this group resulted in a report titled "*Who Cares Wins:Connecting Financial Markets to a Changing World*" (2004). It is in this report that one finds early use of the concept "ESG". Notably, that report makes explicit linkage between ESG and financial performance by proposing that that "[c]ompanies with better ESG performance can increase shareholder value…" (p 9). One year later, the United Nations Environmental Program Finance Initiative issued its "Freshfields Report" (UNEP-FI, 2005). In keeping with the earlier 2004 report, the Freshfields Report also highlighted the financial importance of ESG issues. Combined, it is these two reports which created a foundation for the UN-backed Principles for Responsible Investment ("PRI", 2006), with a mission that is centered on achieving a sustainable global financial system through promotion of a set of six "Principles for Responsible Investment".

Ten years after the release of the Freshfields Report, the Paris Agreement (2015) was adopted with a primary objective of keeping global temperature increases to below 2°C above pre-industrial levels. That target was agreed upon at an international level through the United Nations Framework Convention on Climate Change Conference of Parties (UNFC COP, 2015). Despite heightened focus on ESG and climate

change, it has become apparent (Roglej et al, 2016) that national pledges are not sufficient to achieve desired targets, including the 2°C threshold. This underscores the importance of ESG metrics and ratings as essential contributors to finding solutions for these challenges.

Over time, the number of investment fund signatories, as well as total assets under management (AUM) has consistently grown dramatically. According to Bloomberg Intelligence (2024), global ESG assets surpassed $30 trillion in 2022 and are on track to surpass $40 trillion by 2030. If that were to happen, ESG assets would constitute more than 25 percent of the projected $140 trillion global assets under management. These investment trends have contributed to the proliferation of ESG ratings in current use. With stakes this high, and increased pressure to deliver results, the importance of achieving positive ESG scores is amplified.

A notable trend over time has been an expansion in the use of ESG ratings. Although ESG scores were initially developed reported only for financial companies, they are more recently being provided by a broad range of companies seeking to enhance their reputation (Arouri et al., 2019), reduce financial risk (Chollet & Sandwidi, 2018) and to attract capital (Cheng, et al, 2014). Another recent trend has been to link ESG targets (performance) with executive compensation. For example, by 2019, 45% of FTSE listed companies were including ESG targets in executive compensation and this increased to 86% by 2021 (Dell' Erba & Gomtsyan, 2024; Gosling et al., 2021; Gosling et al., 2022). There is agreement among experts that this trend is likely to continue (Bebchuk & Tallarita, 2022) and represents yet another area in which ESG metrics and performance have become high stakes.

This history has several important implications. First, it solidly anchors ESG within the financial sector, including high stakes sustainable investments. This, in turn, explains why ESG metrics are heavily reliant on quantitative measures. Lastly, the use of ESG ratings has expanded greatly, as has the rationale for using them. As will be discussed later, these factors have important implications for ESG ratings overall, including their susceptibility to the distorting influences of Campbell's Law.

The Current State of ESG

As the use of ESG ratings has expanded, the ratings have evolved in order to reflect the varying interests of organizations, investors and markets (Barros et al., 2024). In practice, ESG scores are used to measure the performance of firms across three 'pillars': environmental (E), social (S), and corporate (G) governance (Widyawati, 2020). More recently, ESG has received growing attention, especially in the realm of socially responsible investing and as a tool for building green portfolios (Friede et al., 2015).

The growth and expansion of ESG had led to increased complexity and opacity. This trend is reflected in the body of scholarly literature as well as in professional (practice) publications. The recent Annual Corporate Director's Survey published by Pricewaterhouse Coopers (2024) is illustrative and reports on leadership perceptions of the current state of ESG. Among the results noted was that ESG means different things to different people and that the complexity of ESG has increased. Other respondents to the survey noted that ESG has become a 'charged' term that is characterized by considerable ambiguity. These conditions are discussed in detail below, and particularly as relevant to divergence in ESG ratings. As is discussed below, there is a substantial body of scholarly work that discusses these attributes, particularly as they relate to divergence of ESG ratings.

Numerous factors contribute to the state of the current ESG landscape. One of those is the proliferation of ratings structures and the lack of either a widely accepted or standardized approach. Instead, each ESG ratings provider uses its own rating methodology. The methodologies are typically considered proprietary and therefore are not disclosed. This makes it difficult, and at times impossible, to compare ESG ratings in a meaningful way. Past research on ESG provider products (Douglas, 2017) has noted variation in data quality and metrics used, leading to confusion about what the metrics reflect. Consequently, and under these conditions, companies may be inclined to "shop" for an ESG provider whose rating system presents its information in the best way possible.

Beyond this, there is also notable divergence in terms of the individual metrics and measurement criteria that are in use. In one study (Fraser et al., 2022) the authors identified 600 possible, but not universal, ESG indicators currently in use. In another study (Berg et al., 2022), six rating agencies were analyzed. Doing

that work necessitated a review of 709 different indicators. The researchers concluded /the ESG environment is in a state of "aggregate confusion" (p. 1315). Although efforts are being made to address this, including work being done by the Global Reporting Initiative Standards (GRI) and the Aggregate Confusion Project (ACP), there remains much to be done. At least for now, the current rating environment remains one in which companies have latitude to selectively implement ESG metrics, including those which are more easily achieved.

Another area of concern relates to the sources of data that are being used for ESG ratings. First, most ratings agencies do not disclose or share their data. This raises issues of auditability and data reliability. In addition, ESG data comes from both compulsory and voluntary disclosures. Compulsory data disclosures, mandated by regulatory and other requirements, evolve over time as obligations change. This makes it difficult to ascertain whether positive changes in a company's ESG ratings are the result of performance improvements or due to some other (external) factor such as changes in reporting requirements. This problem has been identified in the literature, including by Etsy and Court (2017) who found that ESG data have "so many gaps and errors that they do not provide clear guidance on which companies are delivering superior results" (p. 17). This critique has been echoed by others who caution that using environmental data from leading ESG ratings providers is a poor predictor of [actual] firm performance (Chaterji et al., 2009). Because ESG metrics use historical data, the result is a time-bound, retrospective snapshot of the company's past performance. There is no assurance that past performance will continue in future. For data that is self-disclosed, a risk is that the organization can selectively provide self-serving information (Schultz & Trommer, 2012). This can result in undesirable consequences, including 'greenwashing', which involves "two firm behaviors: poor environmental performance and positive communication about environmental performance" (Delmas & Burbano, 2011, p. 65).

The volume and complexity of ESG data raises yet other challenges, particularly for firms that lack prior experience or the technology needed to execute sophisticated data collection and analysis. Even when firms have the requisite skill and resources, and despite the best intentions, errors may result in a failure to capture data accurately (Wood, 2010).

PART TWO: CAMPBELL'S LAW

Campbell's Law- Mind Your Measures

Campbell's Law, articulated by social psychologist Donald T Campbell, proposes that "the more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor" (1976, p. 49). Thus, when a measure becomes a target, it may become distorted and therefore cease to be a good measure. This distortion can produce consequences that are both unintended and detrimental, particularly when the target is positioned as a measure of success. Paradoxically, the target measure both distorts and corrupts the process it was intended to monitor. This phenomenon is now explored through a review of literature on the subject.

Discussion of Literature

Campbell's Law has been researched in a variety of contexts. One of those is law enforcement, which was a focus of Campbell's own work. He explored the consequences of using the number of crimes solved ("clearance rates") as a measure of police effectiveness and found (1976) that use of this metric produced several undesirable consequences. Among those were forced confessions, failure to record all citizen complaints that were received and delays in recording crimes until after they had been solved.

In the health care field, Poku (2016) researched the consequences of using the 'number of patients seen' (fee for service) as a performance metric. It was found that the use of this metric produced lower patient satisfaction levels, lower quality of care, and a reluctance by some physicians to treat patients who are more critically ill.

Chong (2021) examined Campbell's Law in higher education and found that by measuring and incentivizing the number of publications, academic researchers will forego subject matter that is not linked

to a clear publication target. It was also found that by measuring and rewarding the number of times a publication is cited, scholars prioritized working on types of papers which tend to have higher citation frequency, including meta-analysis and review papers. Consequently, worthwhile but specialized research that is not broadly applicable, was being pursued less often.

Several authors have examined the effects of Campbell's Law in primary and secondary level education. Byrd and Varga (2018) focused on the consequences of high stakes testing when used as a measure of achievement in a few select subject areas. Those authors found that instructional hours were placed on subjects that were tested (reading, writing, mathematics) to the neglect of other subjects such as social studies which encouraged critical thinking skills. Nichols and Berliner (2007) found that high stakes standardized testing using a single score (outcome) can increase pressure to cheat (p. 2). Campbell (1976) focused on the use of standardized test scores to measure teaching effectiveness and found several distorting consequences including the practice of "teaching to the test" (p. 51). Another concerning practice identified by Campbell was the use of 'pre-tests' designed to make scores as low as possible. The objective of doing this was to be able to demonstrate large gains when the 'real' test was administered. Using cautionary words, he noted that "when test scores become the goal of the teaching process, they both lose their value as indicators of educational status and distort the educational process in undesirable ways" (p. 52).

Other researchers have examined the influences of Campbell's Law in social contexts. In an exploration of ethics, the work done by Sidorkin (2016) raised ethical concerns, cautioning that "people evaluated on the basis of data know how they are being evaluated and, consciously or subconsciously, change their activity or manipulate the data [in a] strategic response to being evaluated on certain measured indicators" (p. 322).

Braganza (2022) focused specifically on 'competitive societal systems' that aim to advance a discrete, focused goal and apply quantitative measures for the purpose of ranking agents within the system. To illustrate this point, the author uses the example of scientific researchers who must compete for resources such as grant funding. As part of that process, the researchers are measured and ranked using a set of quantitative measures which then become performance targets. Those quantitative measures become proxies for the objective of scientific research, which is the production of research that is both relevant and true. In a variety of other areas, including economics, workplace dynamics and social progress, other authors have similarly found that the use of quantitative proxy measures has a distorting effect on targets that are measured. (Benabou & Tirole, 2016; Baker, 2016; Smaldino & McElreath, 2016; Stiglitz et al., 2010).

The research that has been discussed demonstrates how a quantitative measure, when used as an incentivized performance target, can become a 'proxy' for the original (intended) outcome. The result is a corruption of the original, desired outcome. Table 1 synthesizes the literature on Campbell's Law, including illustrative examples of how original (intended) goals can become distorted. The consequences of this distorting influence are also identified. As discussed in Part Three, these dynamics have important implications for ESG metrics.

TABLE 1
DISTORTING INFLUENCES OF CAMPBELL'S LAW- A TYPOLOGY

Original Goal(s)	Incentivized Measurement/ Proxy	Consequence(s)/ Distortion
Education, learning, skills; teaching effectiveness	Standardized test score results	• Pressure to cheat • "Teaching to the test" • Neglect of subject matter areas that are not tested • Use of pre-testing designed to produce low scores

Law enforcement efficacy	Number of crimes solved ("clearance rates")	• Delayed reporting of crimes until after they are solved • Failure to record all reported crimes/ complaints • Forced confessions
Delivery of cost effective health care (efficiency)	Number of patients seen	• Reduced patient satisfaction • Lower quality of care • Reluctance to treat patients with more critical illness
Production of scholarly work	Number of publications	• Neglect of meaningful work that is not linked to a publication target
Ranking/ rating impact of scholarly work	Number of citations	• Focus on types of publications that have higher citation frequency

PART THREE: CAMPBELL'S LAW- IMPLICATIONS FOR ESG

Applying Campbell's Law to ESG

Researchers in multiple fields have examined the effects of Campbell's Law in a variety of contexts. Combined, that work suggests these effects have a level of general applicability, making Campbell's Law a useful lens for examining metrics and ratings systems. Prior research on Campbell's Law tells us that numerous undesirable behaviors and consequences should be anticipated in the context of ESG ratings. First, we should expect the adoption of corrupt practices aimed at the achievement of desired results (performance targets). This is particularly so because many ESG metrics are tied to high stakes outcomes, resulting in heightened pressure to cheat. Next, it should also be expected that firms will selectively prioritize those ESG metrics which have the greatest and most immediate impact on their overall ESG ratings. When optimizing for scores takes place, other worthwhile goals will be marginalized if they are more difficult to achieve or do not contribute demonstrably to the achievement of ESG targets. Lastly, we should expect that targeted ESG measures will, over time, become proxies for other (original) goals. In the context of ESG ratings, these influences and behaviors manifest in various ways that, collectively, result in distortions to desirable outcomes. This is now discussed.

Misinformation, Disinformation

As informed by Campbell's Law, we should anticipate pressure to cheat and less ethical behavior overall. In the context of ESG ratings, this can manifest is through various "information distortions" (Carmi et al., 2020). These distortions take place across a continuum of intentionality and involve sharing false information that, at its core, is aimed at achieving desired ESG targets. At one end of the continuum lies disinformation which involves deliberate communication of false information. This behavior is aimed at creating deception, sometimes for the purpose of harming recipient(s) of the false information. Misinformation, by comparison, involves the unknowing spread of false information and as such does not necessarily carry an intent to cause harm (Lyon & Maxwell, 2011).

Several troubling manifestations of disinformation and misinformation exist in connection with ESG metric disclosures, and especially with respect to those disclosures which relate to sustainability performance. Perhaps the best known of these is 'greenwashing'. This happens when a firm knowingly overstates its sustainability achievements (Bowen & Aragon-Correa, 2014; Delmas & Barbano, 2011; Kim

& Lyon, 2015; Li et al., 2023). By comparison, 'greenwishing', also known as "unintentional greenwashing" (KPMG, 2023) takes place when a company over commits to aspirational but unrealistic sustainability targets that exceed the organization's resources When greenwashing, firms may also engage in 'masking' and 'pooling'. Masking involves taking actions to deflect attention away from company practices that might be damaging to ESG ratings and company image. One way to do this is through 'window dressing' that includes actions such as the adoption of eco-friendly logos by companies that are part of a brown industry. With 'pooling, firms join programs that can boost ESG ratings through a 'halo effect' but continue to maintain existing harmful behaviors. By comparison, green hushing', 'green muting' and 'green blushing' (Fella & Bausa, 2024; Falchi et al., 2022; Szabo & Webster, 2021) involve deliberate withholding or downplaying of actual (true) ESG performance related to environment and sustainability. One might think of this behavior as a type of 'fibbing by omission', where deception takes place through selective reporting or omission of relevant information. A lesser-known variant of deceptive communication behaviors in ESG is 'crosswashing'. As described by Hassanni and Bahini (2024), this happens when a firm makes strategic investments in sustainable activities, for the purpose of boosting its ESG ratings, while at the same time continuing core operations that are not sustainable. When ESG metrics are tied to regulatory, investment and other high stakes outcomes, the incentive to engage in various forms of information distortion is increased.

Teaching to the Test and Other 'Distortions'

Based upon past research that cautions about 'teaching to the test', it can be expected that efforts will be concentrated on high impact ESG metrics, and especially those which are monitored by regulators, investors and other stakeholders. The attainment of a high ESG rating becomes an end unto itself, and activities that maximize improvements in ESG ratings are prioritized. This is problematic when those activities are not aligned with organizational values and goals. The result is displacement of meaningful goals which are put aside because they don't have significant, positive ESG impact. A further consequence is resource mis-allocation, involving allocation of capital in a way that manages ESG metrics rather than tangible improvements in outcomes. Finally, organizations may shop around for a ratings provider whose construct will maximize the aggregate ESG score. This dynamic exacerbated by a lack of transparency and consistency in ESG rating methodologies.

Table 2 below presents a typology of risks as identified through the application of Campbell's Law to ESG ratings. The typology builds upon Table 1 and incorporates the discussion that has been presented in Parts Two and Three. Steps that can be taken to mitigate these risks will be presented in Part Four.

TABLE 2
TYPOLOGY OF RISKS: DISTORTING BEHAVIORS AND OUTCOMES

Risk Category	Description	Illustrative Outcome
1) Metric Manipulation and Gaming	Firms alter behaviors or data to improve ESG scores without real change.	Activities are reclassified to meet ESG criteria.
2) Goal Displacement	ESG performance becomes an end in itself, displacing other important goals.	Focus is placed on high impact ESG metrics that do not align with company values.
3) Perverse Incentives	ESG metrics create incentives that lead to unethical or counterproductive outcomes.	ESG accomplishments are downplayed, to avoid unwanted attention (greenhushing). 'Stretch' targets are established that the organization is not in a position to achieve (greenwishing).

		Strategic investments made to boost ESG ratings while undesirable firm activities continue (crosswashing).
4) Data Inflation	Pressure to perform leads to exaggerated ESG reporting.	Achievements are overstated (greenwashing).
5) Inconsistencies Across Rating Systems/ Metrics	Variability across ESG frameworks encourages 'cherry-picking'.	'Shopping around' to identify a rating provider whose system will optimize ESG scores.
6) Resource Misallocation	Capital is allocated toward managing metrics.	Spending prioritizes ESG reporting tools and targets while other (important) goals are neglected.
7) Pooling	A 'halo effect' is created through alignment with programs that have a positive ESG profile	Firms join programs with positive ESG profile to boost their own image.
8) Masking	Actions taken to deflect attention away from practices that may harm ESG ratings	Firms in brown industries adopt eco friendly branding to distract from harmful behaviors
9) Fibbing by Omission	Information is put forth that, although not technically false, is deceptive	Products are labeled 'CFC free' without mentioning that CFCs are banned

Metrics in each of the ESG categories (E. S, G) are vulnerable to the risks presented in Table 2. When this occurs, the metric becomes distorted. To illustrate how this can happen, Table 3 provides illustrative examples, including relevant manipulation tactics. The manipulation tactics are mapped to the risk categories from Table 2. Mitigation approaches are also suggested. Those are discussed in Part Four.

TABLE 3
ESG METRIC CATEGORIES SHOWN WITH EXAMPLES OF MANIPULATION TACTICS AND MITIGATION APPROACHES

ESG METRIC CATEGORY	MANIPULATION TACTIC	APPLICABLE CATEGORY (FROM TABLE 2)	MITIGATION APPROACH
Environmental	Reporting only Scope 1 (direct) GHG emissions	1, 8,9	Include Scope 3 (indirect) emissions (e.g.- supply chain)
	Use of low quality or unverifiable offsets to claim 'net zero', without actual reduction in operational emissions	1, 3,7	Disclose details regarding offset purchases, including their duration and quality
	Purchasing renewable energy certificates (RECs) to claim credit for green energy and 'check the box' on sustainability	1, 3, 6,7	Prioritize purchase of RECs from projects that would not have been built without the additional revenue from REC sales

	Overstating achievements to create a favorable image	1,2,3,4	Link claims to specific, available resources; reduce reliance on quantitative metrics
Social			
	Reporting of routine and/or compulsory activities and 'rebranding' them as 'social impact' focused	1, 3, 9	Report new, voluntary activities and explain their nexus to social impact
	Reporting information about workplace diversity (e.g.- % hired from underrepresented groups)	1,2,3,9	Disclose retention and promotion data for underrepresented employee groups
	Selectively reporting positive 'employee satisfaction' data	1,2,3	Ensure employee satisfaction data captures multiple years and all demographics
Governance			
	Disclose existence of ESG committee at the Board level	1,2	Report on ESG committee decisions, outcomes
	Adopting anti-corruption policies (on paper)	1,2,3	Disclose how policies are supported with appropriate resources and enforcement (e.g.- whistleblower hotlines)
	Linking executive compensation to vague or easily achievable ESG targets	1,2,3	Use long-term compensation, such as RSUs, to promote executive performance
	'Shopping around' to optimize choice of rating provider, maximize score	5,9	Search for 'red flag' indicators that suggest a disconnect between reported information and firm performance

PART FOUR: CLOSING THE GAPS

The discussion provided in this work has illuminated numerous 'gaps' in ESG ratings systems and metrics. These gaps have important implications for organizations and their leaders, as well as for academic researchers. Those are now addressed.

Recommendations for Practitioners

As discussed, gaps in ESG metrics and ratings system create numerous areas of potential exposure for organizations. These exposures include reputational damage, loss of stockholder confidence and liability. Awareness of the limitations of ESG metrics is an important first step, however, mitigation steps are also needed. Leaders should consider the following mitigation strategies:

Ensure that ESG is embedded throughout key areas of the organization. This should include connections to the Board of Directors and all levels of company employees, as well as to specific functional areas including compliance, enterprise risk management and strategic planning. This holistic approach helps prevent a decoupling of ESG, where it becomes a siloed 'check the box' activity. Cross-functional, heightened visibility across the entire organization creates an environment that encourages organizations to

evaluate ESG efforts and activities in a deliberate, intentional manner. Ideally, this will include consideration of the organization's mission, values and role in society and how best to focus on 'doing the right thing. Shifting to a principles-focused ethos can encourage pursuit of ESG in a way that mitigates some of the undesirable influences of Campbell's Law.

Implement safeguards to maximize integrity and minimize corruption. It is important to exercise caution when ESG performance is linked to reward systems, including bonus payouts and other compensation. One recent trend has been to link ESG performance with long-term compensation such as restricted stock units (RSUs) and performance share units (PSUs). Some research suggests (Li et al., 2024) that increased emphasis on equity compensation is associated with reduced ESG distortions such as greenwashing. This approach to compensation aligns with a change in thinking to view ESG targets as strategic, transformational goals meant to be carried out over an extended time frame. This, in turn, may be useful in discouraging exclusive emphasis on short term, easily attainable goals. As a practical matter, it is acknowledged that eliminating all direct links between ESG reporting and reward systems is likely not possible. This is particularly the case for those areas which are beyond the organization's direct control and might include, for example, positive investor response when a company is added to a sustainable investment fund. However, leaders have a key role to play in identifying and guarding against these pitfalls.

Use scenario planning to test, and plan for, a range of possible ESG outcomes. Many organizations are already using scenario planning to develop narratives that describe a range of plausible future outcomes. However, organizations should also use scenario planning to better understand risks and opportunities that are embedded within their ESG program. Examples of those risks include unfavorable changes in ESG reporting requirements and regulations. Planning for a range of alternative, future outcomes is a critical step in developing resilience that is needed to navigate changes. Having these types of adaptive capabilities may help to mitigate pressure to manipulate ESG metrics.

Adopt safeguards to increase transparency of the ESG construct. One way to accomplish this is through disclosure of the ESG rating system that is adopted, and when possible, the metrics included in that system. Voluntary disclosure of data sources, along with openness to an independent verification of the data, can add transparency as well. Finally, specific ESG claims should be explicitly linked to available resources in order to minimize the potential for greenwashing.

Reduce reliance on quantitative metrics. This objective can be achieved by adopting a balanced approach that incorporates qualitative information. One is to accomplish that is with the use of narrative that allows companies to tell the story of their ESG journey, highlighting progress made over time. This type of approach could also provide companies with an opportunity to highlight voluntary actions taken, beyond minimum requirements, thereby closing one of the gaps that exists in current ESG ratings constructs. Qualitative metrics, and particularly narrative, also provide a way for companies to highlight their broader societal impacts rather than simply focusing on the accounting process of cancelling out their environmental emissions on paper. By using qualitative measures, it also becomes possible to share a company's future ESG trajectory rather than relying upon past performance. This is significant since much of a company's ESG value arguably lies in its ability to identify and implement future steps that can contribute positively to the environment and sustainability. Wherever possible, future goals should be explicitly linked to actions in the present.

Utilize more than one measurement for each ESG category. By using multiple measures for each performance metric, it is more difficult to manipulate data without the risk of highlighting inconsistencies among the multiple data points. Practical considerations remain about how to accomplish this, especially when working with large amounts of data and data that spans multi-year time periods.

Adopt 'results based' metrics rather than 'actions-based' metrics. As discussed, actions-based metrics have numerous limitations and may be used to manipulate ESG ratings. Where possible, leaders should instead encourage and use metrics that reflect tangible, demonstrable outcomes. For example, it is common for companies to report the amount that has been spent on renewable energy credits (RECs). As discussed, (see Table 3), that metric is subject to manipulation. A more robust metric would be to report the amount spent on projects that would not have been built but for the additional revenue from REC sales.

Scan for possible 'red flags' that may suggest a potential disconnect between reported metrics and actual performance. These red flag indicators merit investigation as they may reflect that ESG metrics are being manipulated. Examples of 'red flags' include: high ESG ratings despite recent, public controversies; sudden, unexplained drops in reported workplace safety, ethics complaints or litigation; reporting that is dominated by policies and structures that exist, without discussion of corrective actions or performance results; high ESG scores despite being involved in a large number of lawsuits, enforcements actions and/or regulatory scrutiny; sharp, unexpected declines in key environmental impacts areas (emissions, water use, waste generation) not attributable to specific operational changes.

Suggestions for Management Scholars

Academics who research ESG, as well as others who utilize ESG data, should be concerned about the influences of Campbell's Law. These impacts may compromise scholarly research which is dependent on its reliability, integrity and utility. In instances where a researcher unknowingly uses compromised ESG data, the results can include unreliable and inaccurate conclusions. When published research has been impacted in this way, and is thereafter used by others, the results can include a cascade of other issues, including misguided policy and practice recommendations. Beyond that, the theory foundations of ESG research may be also eroded, limiting its explanatory and predictive value. Future work should be done to further investigate these dynamics, including their scope and impacts, and the implications that follow from them. Based upon the findings of this paper, scholars can respond in a few ways, as follows:

Critically interrogate ESG metrics and ratings. Researchers should be cautious about accepting ESG metrics at 'face value'. A rich area for future research centers around the analysis of how ESG metrics are constructed, used and incentivized. This may be a particularly rich area of focus for scholars whose work is focused on greenwashing, greenwishing and greenhushing.

Remain mindful of the inherent limitations of ESG metrics. Where possible, researchers should investigate and disclose limitations in ESG metrics that are used. ESG scores from different providers should not be treated as interchangeable and comparison among providers is important.

Conduct additional research. Future research can, and should, explore alternatives to quantitative ESG metrics, including the use of narrative. Narrative approaches can provide an alternative to quantitative metrics and a way for organizations to outline their ESG journey over time. Unlike quantitative ESG metrics, which rely upon historical data, narrative offers a means for sharing both retrospective and prospective information. This leads to at least two other areas for future research. One is to explore what forms of narrative are most effective for this purpose. Another is to investigate whether the integrity and rigor of ESG programs can be enhanced through use of narratives and reduced reliance on quantitative metrics.

PART FIVE: CONCLUSION

This paper has aimed to encourage management practitioners and scholars to critically assess the current state of ESG practice. To do this, discussion began by outlining the origins of ESG, including its connection to the financial sector. The evolution of ESG was then sketched, leading to a critique of the state of ESG today. Numerous limitations and challenges were identified. Through the application of Campbell's Law, and drawing from existing research, a set of best practice recommendations for practitioners was proposed. Several areas for future research have also been suggested. Combined, these provide an opportunity to move beyond the limitations of ESG ratings in use today. A shift in thinking is needed and, if made, can drive movement toward pathways that result in genuine and sustainable value creation for a range of stakeholders.

This paper has also aimed to promote a more holistic understanding of ESG by leveraging multiple viewpoints to identify business problems, incorporate academic perspectives, and propose practical solutions. Based upon the research here, readers are encouraged to continue to think about ESG in new and innovative ways. While the findings of this paper hold promise, it is also important to provide a balanced perspective by presenting some limitations of this work. Those are now identified and discussed.

Empirical Validation

Because this paper uses a conceptual, theory approach, it does not focus on practical implementation of the concepts that have been proposed. Therefore, empirical studies or case examples may be useful for demonstrating tangible outcomes. This additional research could also be useful for highlighting potential challenges that cannot be addressed through a conceptual approach. Empirical validation can be investigated through future research.

Interdisciplinary integration

This paper has proposed the use of narrative as an alternative to quantitative ESG metrics. Specific modalities of narrative creation are beyond the focus of this paper. However, research from other disciplines (e.g.- sociology, political science and philosophy) may be helpful for generating additional theory and practice insights. Those insights could lead to a rich framework for using narrative in ways that can be additive to ESG.

Scalability and Applicability

The scalability and applicability of the best practices and solutions in this work is unclear. This includes uncertainty regarding whether it is feasible to implement them in a variety of different contexts. Additional research is needed to understand potential barriers to implementation as well as strategies for overcoming them. With very little existing research on these topics, it may be necessary to first identify gaps in the existing literature or to develop a new research typology.

REFERENCES

Acuti, M., Pizzetti, S., & Dolnicar, S. (2022). When sustainability backfires: A review on the unintended negative side-effects of product and service sustainability on consumer behavior. *Psychology and Marketing*, *39*(10), 1933–1945. doi.org/10.1002/mar.21709

Arouri, M., Gomes, M., & Pukthuanthong, K. (2019). Corporate social responsibility and M&A uncertainty. *Journal of Corporate Finance*, *56*, 176–198. doi.org/10.1016/j.jcorpfin.2019.02.002

Baker, M. (2016). Is there a reproducibility crisis? *Nature*, *533*(704), 452–454.

Barros, V., Verga Matos, P., Miranda Sarmento, J., & Rino Vieira, P. (2024). EST performance and firms' business and geographical diversification: An empirical approach. *Journal of Business Research*, *172*, 114392.

Bebchuk, L.A., & Tallarita, R. (2022). The perils and questionable promise of ESG-based compensation. *The Journal of Corporation Law*, *48*(1), 1–38.

Behl, A., Kumari, P.S.R., Makhija, H., & Sharma, D. (2021). Exploring the relationship of ESG score and firm value using cross-lagged panel analyses: Case of the Indian energy sector. *Annals of Operations Research*, *313*, 231–256. doi.org/10.1007/s10479-021-04189-8

Benabou, R., & Tirole, J. (2016). Bonus culture: Competitive pay, screening and multitasking. *Journal of Political Economy*, *124*(2), 305–370

Benjamin, D.J., Heffetz, O., & Weinstein, M.M. (2023, July 18). Research: The ESG issues that matter most to people. Harvard Business Review. Retrieved from https://hbr.org/2023/07/research-the-esg-issues-that-matter-most-to-people.

Benuzzi, M., Bax, K., Paterlini, S., & Taufer, E. (2025). Chasing ESG performance: How methodologies shape outcomes. *International Review of Financial Analysis*, *104*, part A, 104329. doi.org/10.1016/j.irfa.2025.104239

Berg, F., Köbel, J.F., & Rigbon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *European Finance Association*, *26*(6), 1315–1344.

Bloomberg Intelligence. (2024, February 8). Global ESG assets predicted to hit $40 trillion by 2030. Retrieved from https://www.bloomberg.com/company/press/global-esg-assets-predicted-to-hit-40-trillion-by-2030-despite-challenging-environment-forecasts-bloomberg-intelligence/.

Borgers, A., Derwall, J., Koedijik, D., & ter Horst, J. (2013). Stakeholder relations and stock returns: On errors in investors' expectations and learning. *Journal of Empirical Finance*, *22*, 159–175. doi.org/10.1016/j.jempfin.2013.04.003

Bowen, F., & Aragon-Correa, J.A. (2014). Greenwashing in corporate environmentalism research and practice: The importance of what we say and do. *Organization & Environment*, *27*(2), 107–112. doi.org/ 10.1177/1086026614537078

Braganza, O. (2022). Proxyeconomics, an agent-based model of Campbell's law in competitive societal systems. *Royal Society of Open Science*, *9*. doi.10.1098/rsos.211030

Byrd, M., & Varga, B.A. (2018). The manifestation of Campbell's Law: Consequences of eliminating social studies from the curriculum. *Social Studies*, *109*(1), 27–33.

Campbell, D.T. (1976). Assessing the impact of planned social change. Hanover, NH: The Public Affairs Center, Dartmouth College. Retrieved from http://goo.gl/AAaPx.

Carmi, E., Yates, S.J., Lockley, E., & Pawluczuk, A. (2020). Data citizenship: rethinking data literacy in the age of disinformation, misinformation, and malinformation. *Internet Policy Review*, *9*(2), 1–22. doi.org/10.14763/2020.2.1481

Chaterji, A.K., Levine, D.I., & Toffel, M.W. (2009). How well do social ratings actually measure corporate social responsibility. *Journal of Economics & Management Strategy*, *181*(1), 125–169.

Chauhan, Y., & Kumar, S.B. (2018). Do investors value the nonfinancial disclosure in emerging markets? *Emerging Markets Review*, *37*, 32–46. https://doi.org/10.1016/j.ememar.2018.05.001

Cheng, B., Ioannou, I., & George, S. (2014). CSR and access to finance. *Strategic Management Journal*, *35*(1), 1–23.

Cho, Y. (2022). ESG and firm performance: Focusing on the environmental strategy. *Sustainability*, *14*(3), 7857. doi.org/10.3390/su14137857

Chollet, P., & Sandwidi, B.W. (2018). CSR engagement and financial risk: A virtuous circle? International Evidence. *Global Finance Journal*, *38*, 65–81. doi.org/10.1016/j.gfj.2018.03.004

Chong, S.E. (2021). Campbell's Law: Implication in medical publications and clinical sciences. *Journal of Biomedical & Clinical Sciences*, *6*(2), 45–48.

Dell'Erba, M., & Gomtsyan, S. (2024). Regulatory and investor demands to use ESG performance metrics in executive compensation: right instrument, wrong method. *Journal of Corporate Law Studies*, *24*(1), 1–40. doi.org/ 10.1080/14735970.2024.2350139

Delmas, M.A., & Burbano, V.C. (2011). The drivers of greenwashing. *California Management Review*, *54*(1), 64–87. doi.org/10.1525/ cmr.2011.54.1.64

Dorfleinter, G., Halbritter, G., & Nguyen, M. (2015). Measuring the level and risk of corporate responsibility – An empirical comparison of different ESG rating approaches. *Journal of Asset Management*, *16*(7), 450–466.

Douglas, E., vanHolt, T., & Whelan, T. (2017). Responsible investing: Guide to ESG data providers and relevant trends. *Journal of Environmental Investing*, *8*(1), 91–114.

Etsy, D., & Court, T. (2017). Corporate sustainability metrics: What investors need and don't get. *Journal of Environmental Investing*, *8*(1), 1–43.

Falchi, A., Grolleau, G., & Mzoughi, N. (2022). Why companies might under-communicate their efforts for sustainable development and what can be done? *Business Strategy and the Environment*, *31*(5), 1938–1946. doi.org/10.1002/bse.2991

Fella, S., & Bausa, E. (2024). Green or greenwashed? Examining consumers' ability to identify greenwashing. *Journal of Environmental Psychology*, *95*, 102281. doi.org/10.1016/j.jenvp.2024.102281

Fraser, J.R., Quail, R., & Simkins, B.J. (2022). Environmental, social and governance (ESG) and the roles of management, internal audit, and Enterprise Risk Management. *SSRN Journal*. doi.org/10.2139/ssrn.4141378

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregate evidence from more than 2000 empirical studies. *Journal of Sustainable Finance and Investment*, *5*(4), 210–233. doi.org/10.1080/20430795.2015.1118917

Gosling, T., & Guymer, C.H. (2021). *Paying well by paying for good* [report]. London Business School Centre for Corporate Governance and PricewaterhouseCoopers. Retrieved from https://www.pwc.co.uk/human-resourceservices/assets/pdfs/environmental-social-governance-exec-pay-report.pdf

Gosling, T., O'Connor, P., Hawthorne, D., & Savage, A. (2022). *Paying for good for all* [report]. London Business School Leadership Institute and PricewaterhouseCoopers. Retrieved from https://www.pwc.com/gx/en/services/paying-for-goodfor-all/Paying-for-good-for-all.pdf

Hassani, B.K., & Bahini, Y. (2024). Crosswashing in sustainable investing: Unveiling strategic practices impacting ESG scores. arXiv:2407.00751v1

Kathan, M.C., Utz, S., Dorfleitner, G., Eckberg, J., & Chmel, L. What you see is not what you get: ESG scores and greenwashing risk. *Finance Research Letters*, *74*, 106710. doi.10.1016/j.frl.2024.106710

Kim, E.H., & Lyon, T.P. (2015). Greenwash vs. brownwash: Exaggeration and undue modesty in corporate sustainability disclosure. *Organization Science*, *26*(3), 705–723.

KPMG Advisory. (2023). Greenwashing, greenhushing and greenwishing: Don't fall victim to these ESG reporting traps. Retrieved from https://kpmg.com/us/en/media/news/greenwashing-esg-traps-2023.html

Li, J., Lian, G., & Xu, A. (2023). How does ESG affect the spillover of green innovation among peer firms? Mechanism discussion and performance study. *Journal of Business Research*, *158*, Article 113648. doi.org/10.1016/j.jbusres.2023.113648

Li, K., Lin, T-Y., & Zhu, G. (2024). The effect of CEO's compensation in driving corporate ESG greenwashing: Evidence from China. *PLOS ONE*, *19*(10), e0312247 doi.org/10.1371/journal.pone.0312247

Lyon, T.P., & Maxwell, J.W. (2011). Greenwash: Corporate environmental disclosure under threat of audit. *Journal of Economics & Management Strategy*, *20*(1), 3–14.

Melinda, A., & Wardhani, R. (2020). The effect of environmental, social, governance, and controversies on firms. *Value: Evidence from Asia*, *27*, 147–173. doi.org/10.1108/s1571-038620200000027011

Moller, V., Koehler, D., & Stubenrauch, I. (2015). New perspectives on corporate social responsibility. In L.O. Riordan & P. Zmuda (Eds.), *Finding the value in environmental, social and governance performance*. Wiesbaden: Springer Gabler.

Nicols, S.L., & Berliner, D.C. (2007). *Collateral damage: How high-stakes testing corrupts America's schools*. Cambridge, MA: Harvard Education Press.

Orlitzky, M. (2013). Corporate social responsibility, noise, and stock market volatility. *Academy of Management Perspectives*, *27*(3), 238–254. https://doi.org/10.5465/amp.2012.0097

Poku, M. (2016). Campbell's Law: implications for health care. *Journal of Health Services Research & Policy*, *21*(2), 137–139.

PricewaterhouseCoopers. (2024). *2024 Annual Corporate Director's Survey: Uncertainty and transformation in the modern boardroom.* Retrieved from https://www.pwc.com/us/en/services/governance-insights-center/library/assets/pwc-uncertainty-and-transformation-2024.pdf

Rohendi, H., Ghozali, I., & Ratmono, D. (2024). Environmental, social, and governance (ESG) disclosure and firm value: The role of competitive advantage as a mediator. *Cogent Business & Management*, *11*(1). doi.org/10.1080/23311975.2023.2297446

Sadiq, M., Singh, J., Raza, M., & Mohamad, S. (2020). The impact of environmental, social and governance index on firm value: Evidence from Malaysia. *International Journal of Energy Economics and Policy*, *10*(5), 555–562. doi.org/10.32479/ijeep.10217

Schultz, W., & Trommer, R. (2012). The concept of environmental performance and its measurement in empirical studies. *Journal of Management Control*, *22*, 375–412.

Sidorkin, A.M. (2016). Campbell's Law and the ethics of Immeasurability. *Studies in Philosophy and Education*, *35*, 321–332.

Smaldino, P.E., & McElreath, R. (2016). The natural selection of bad science. *Royal Society Open Science*, *3*(9), 160384.

Stiglitz, J.E., Sen, A., & Fitoussi, J-P. (2010). *Mismeasuring our lives: Why GDP doesn't add up.* The New Press.

Szabo, S., & Webster, J. (2021). Perceived greenwashing: The effects of green marketing on environmental and product perceptions. *Journal of Business Ethics*, *171*, 719–739. doi.org/10.1007/s10551-020-04461-0

United Nations. (2015). *United Nations framework convention on climate change, conference of parties*. Adoption of the Paris Agreement. Retrieved from https://unfccc.int/process/conferences/pastconferences/paris-climate-change-conference-november-2015/paris-agreement

United Nations Environment Programme Finance Initiative. (2005). *A legal framework for the integration of environmental, social and governance issues into institutional investment.* Retrieved from https://www.unepfi.org/industries/investment/a-legal-framework-for-the-integration-of-environmental-social-and-governance-issues-into-institutional-investment/

United Nations Work Group. (2004). *Who cares wins: Connecting financial markets to a changing world*. Retrieved from https://www.unglobalcompact.org/docs/issues_doc/Financial_markets/who_cares_who_wins.pdf

van Beurden, P., & Gössling, T. (2008). The worth of values – a literature review on the relation between corporate social and financial performance. *Journal of Business Ethics*, *82*(2), 407–424. doi.org/10.1007/s10551-008-9894-x

Widyawati, L. (2020). A systematic literature review of socially responsible investment and environmental social governance metrics. *Business Strategy and the Environment*, *29*, 619–637. doi.org/10.1002/bse.2393

Wood, D.J. (2010). Measuring corporate social performance: A review. *International Journal of Management Reviews*, *12*, 50–84.