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Attitudes of millennials toward corporate responsibility: a 28-society multilevel analysis

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Abstract

Purpose – We examined the attitudes of millennial-aged business students toward economic, social and environmental corporate responsibility (CR). Currently, these individuals are of an age that they have entered the workforce and are now ascending or have ascended into roles of leadership in which they have decision-making power that influences their company's CR agenda and implementation. Thus, following the ecological systems perspective, we tested both the macro influence of cultural values (survival/self-expression and traditional/secular-rational values) and structural forces (income inequality, welfare socialism and environmental vulnerability) on these individuals' attitudes toward CR.

Design/methodology/approach – This is a multilevel study of 3,572 millennial-aged students from 28 Asian, American, Australasian and European societies. We analyzed the data collected in 2003–2009 using hierarchical linear modeling.

Findings – In our multilevel analyses, we found that survival/self-expression values were negatively related to economic CR and positively related to social CR while traditional/secular-rational values was negatively related to social CR. We also found that welfare socialism was positively related to environmental CR but negatively related to economic CR while environmental vulnerability was not related to any CR. Lastly, income equality was positively related to social CR but not economic or environment responsibilities. In sum, we found that both culture-based and structure-based macro factors, to varying extents, shape the attitudes of millennial-aged students on CR in our sample.

Originality/value – Our study is grounded in the ecological systems theory framework, combined with research on culture, politico-economics and environmental studies. This provides a multidisciplinary perspective for evaluating and investigating the impact that societal (macro-level) factors have on shaping attitudes toward businesses' engagement in economic, social and environmental responsibility activities. Additionally, our multilevel research design allows for more precise findings compared to a single-level, country-by-country assessment.

Keywords Economic corporate responsibility, social corporate responsibility,
Environmental corporate responsibility, Hierarchical linear modeling, Cultural values, Structural forces

Paper type Research paper

Of the various themes of the World Economic Forum (WEF) in Davos, environment, society and governance have been the recurrent focus of discussion. Those themes, aligning with the 17 United Nations' Sustainable Development Goals (SDGs), have resulted in an unprecedented level of global cooperation between businesses and governments. From net-

Plain language summary: Our 28-society study shows that millennial-aged students' attitudes toward CR are associated with two types of societal factors: culture-based (survival/self-expression and traditional/secular-rational values) and structure-based (income inequality, and welfare socialism).

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zero commitments, pandemic prevention, regulation on the metaverse to gender equity, migration and workplace well-being and resilience, we have seen intensified initiatives worldwide. What is underlying these private–public joint efforts is the deep-seated concern for the future of our planet and the well-being of future generations. Our study investigates the views on corporate responsibility (CR) of one of the younger generations, the millennials, who have collectively ascended to positions of decision-making power in businesses today.

Specifically, from 2003 to 2009, we surveyed a worldwide cross-section of millennial-aged business students following their formative years (adolescence) (Hupp and Jewell, 2020), yet prior to them entering the workforce. The result is an assessment of their personal attitudes on CR that is uninfluenced by the pressures of the existing business community. Thus, instead of having, for example, responses from business employees, who are early in their work lives or in their mid-career, and who may feel the pressure to provide the "right" corporate response, this approach provides us with their "innocent" personally embedded values, which will be their fundamental compasses for the remainder of their lives (Hupp and Jewell, 2020; Sagiv and Schwartz, 2022) including the time when they ascend to positions of power and decision-making authority, which for millennials is now.

Today's younger generations, including millennials, live in a world where they are worse off than their parents and grandparents, as evidenced from various fields (e.g. law, sustainable development, economics, ecological economics) (Kurz *et al.*, 2019; McKinsey and Company, 2016). It is in this context that current and future managers will have to navigate forward. It would seem, therefore, that these business leaders are pressed, more than ever, to consider, control and be accountable for the impact of their businesses. In turn, they must consider how to improve upon – some would argue to rectify – the previous actions of capitalism and the global business community (e.g. Clark *et al.*, 2022; Fukukawa *et al.*, 2007).

In this regard, the attitudes of current and future business leaders, regarding the responsibilities of business, are critical for strategically developing and managing more sustainable business practices. Positive attitudes toward corporate responsibilities are commensurate with developing better organizational reputations, better ways for greening economic growth, better ways of meeting the basic needs of current populations and better ways of providing current and future generations with equal rights to prosperity across developed and developing societies (Jackson and Victor, 2019; Lartey *et al.*, 2020; Varadarajan and Kaul, 2018). Indeed, negative or indifferent attitudes may lead to a failure to step up to this responsibility and this may have catastrophic societal, economic and environmental consequences.

In our study, we work from the assumption that today's millennials' attitudes toward CR are largely shaped by their college years – a period when they were particularly receptive to environmental influences and education on CR. This assumption is grounded in research on values, particularly the works on rank-order stability, which reflects the values hierarchy and priorities of individuals (Sagiv and Schwartz, 2022). Values are deeply held beliefs that guide behavior and decision-making, serving as a foundation for forming attitudes (Sagiv and Schwartz, 2022; Triandis, 1995). Attitudes, in turn, are expressions of these values, reflecting individuals' evaluations and feelings toward specific ideas, objects or behaviors. Research indicates that values and the associated attitudes developed over one's formative years and influenced by factors such as parental attitudes, peer interactions and societal contexts, tend to persist into adulthood (Triandis, 1995). Examples include gender role attitudes (Piotrowski *et al.*, 2019), immigration attitudes (Miklikowska, 2017) and intergroup relations (Bohman and Miklikowska, 2020). Values stability research differentiates rank-order stability from mean-level stability (e.g. Vecchione *et al.*, 2016). Rank-order stability refers to the consistent relative importance of values, established as early as ages 5–12, which tends to strengthen with age (Abramson *et al.*, 2018; Sagiv and Schwartz, 2022; Vecchione *et al.*, 2016). Mean-level stability, on the other hand, reflects changes in the average importance of a value over time, albeit noted to be less stable as individuals age, and is influenced by cognitive maturation and shifting psychosocial needs (Gouveia *et al.*, 2015; Milfont *et al.*, 2016). Between these two forms of values stability, the concept of rank-order stability is particularly relevant because CR

initiatives involve managers making trade-off decisions that are guided by their value priorities (rank-orderings) and judgments about how to best allocate organizational resources. Hence, while the average scores of value dimensions may fluctuate over a person's life, their rank-order among these core value dimensions tends to remain remarkably stable (Sagiv and Schwartz, 2022). As attitudes toward business ethics are closely tied to one's values, the rank-order stability of one's personal values, likewise, reflects the stability of his/her attitudes at work. Thus, knowing these CR attitudes of millennial-aged students will help to paint a clearer picture of their current and future CR actions as managers. Therefore, assessing the attitudes of millennial-aged students gives us a reliable snapshot of the current and future managers' CR attitudes.

Accordingly, we attempt to more fully understand the attitudes of the millennial-aged generation toward CR by exploring macro-level antecedent influences that shape these attitudes toward the triple-bottom-line – economic, social, and environmental aspects – of CR (Elkington, 2018). Research examining the various aspects of CR has been of growing interest for management researchers for the past few decades (e.g. Aguinis and Glavas, 2012, 2019; Zhao *et al*., 2022). The economic aspect of CR addresses the financial performance and the provision of goods and services by businesses (Furrer *et al*., 2010). The social aspect, as initially defined by Carroll (1979), addresses the legal, ethical and philanthropic duties of a business entity vis-à-vis its various stakeholder groups. And, the environmental aspect addresses the securing of ecologically sustainable relationships with both biophysical and societal environments (Egri *et al*., 2004). Examining the triple-bottom-line attitudes of these millennials is particularly important in light of the large body of research indicating that a person's attitude guides his/her future behaviors (e.g. Ajzen *et al*., 2018; Ford and Richardson, 1994; Glasman and Albarracin, 2006).

Understanding the influence of macro-level antecedents is important for developing a refined cross-country perspective on CR perceptions, as these macro-level factors represent the notable characteristics of countries, which can inhibit or foster attitude development (cf. Boer and Fischer, 2013). In the sections that follow, we explain the ecological framework that we use to guide our examination of macro-level factors shaping CR attitudes. Ecological psychology on human development (Bronfenbrenner, 2005; Bronfenbrenner and Morris, 2007) applies a systems approach which underscores the importance of the environmental influence on individuals' values and attitudes formation and other developmental outcomes. We propose that this ecological systems view can help to provide a more holistic and systematic lens through which to explore our primary research question: What macro-level factors predict millennials' attitudes toward economic, social and environmental CR? As noted, to this end, we surveyed a worldwide cross-section of millennial-aged business students after their formative years but before entering the business world.

Our study makes a dual contribution to the existing literature. First, our findings will enhance the comprehension of the macro factors that influence attitudes toward CR – a perspective that lacks comprehensive exploration (Miska *et al*., 2018). Our findings will thus enrich discussions on how country-level macro factors may shape individuals' perceptions of CR (see Jamali *et al*., 2020; Miska *et al*., 2018). Second, by employing a multilevel research design, we aim to provide more precise insights into the influence of macro-level factors on individuals' attitudes than can be achieved through previous single-level studies. This approach is superior to the more common cross-cultural research design, which typically involves country-to-country comparisons or correlations based on national averages. Our multilevel design will, at least partially, mitigate the concern of "careless overgeneralization of results" (Smith and Bond, 2019, p. 1), thereby reinforcing the robustness of our findings.

Background and theoretical development

We employ an ecological perspective primarily based on the works of Bronfenbrenner and Morris (2007) to examine the relevant macro contextual factors that explain individuals'

attitudes toward CR. This perspective entails exploring the impact of individuals' broader environmental contexts on the development, manifestation and evolution of human development outcomes. It acknowledges that psychological outcomes, such as attitudes, are not solely shaped by individual variables (e.g. personality, age, gender) but are also influenced by the diverse systems and elements enveloping individuals in their life space (i.e. habitats). While the ecological systems framework (Bronfenbrenner, 2005) involves five systems, as shown in Figure 1, what is relevant to our study is the macro-system.

Focusing on the macro-system, human development is subject to four major forces in the macro environment: culture (values), society (norms and beliefs), economy (economic system and policies) and politics (laws, law enforcement practices, government agencies, political parties, and educational and social policies). For parsimony, we group these macro forces into two primary categories of elements: culture-based factors (culture and society), and structure-based factors (economy and politics). Respectively, they create the enculturation and politico-economic backgrounds for attitude development (see Berry, 2018; Bronfenbrenner, 2005). Culture-based factors establish *normative boundaries* that influence the prioritization of values among individuals (Schwartz, 1992). Consequently, these factors impact how individuals perceive the roles of corporations and the expectations they hold regarding the extent to which corporations should practice social responsibility. On the other hand, structure-based factors influence the (re)distribution of resources between businesses and society at large, primarily through the prevailing tax regime established by the government (see D'Alessandro and Fanelli, 2015). The general practices of resource allocation within a nation set the *regulatory boundaries* that define how businesses contribute to the society from which they acquire resources to sustain their operations. This indirectly establishes a parameter against which individuals gauge their judgments on the responsibilities that businesses should uphold. Lastly, what the ecological systems framework did not explicitly address is the ecological dimension linked to the surrounding physical environment. The physical environment mirrors potential threats or inherent resources within a habitat. Given the escalating apprehensions about environmental deterioration, it is essential to integrate the physical environment as a pertinent context that influences individuals' attitude development toward CR.

Understanding how macro forces influence the formation of millennials' attitudes toward CR can help companies, especially multinational enterprises (MNEs), develop strategies and interventions that align with both cultural and structural factors prevailing in their operating/host locations. This is likely to lead to more positive attitudes and higher commitment toward the company's CR agenda.

In sum, we explore the effects of both culture-based and structure-based influences on attitudes toward CR. To accomplish this end, we begin by operationalizing the culture-based influences, using Inglehart's (1997) two society-level measures (survival/self-expression values and traditional/secular-rational values). We then operationalize the structure-based influences by integrating two structure-based measures (income inequality and welfare socialism) with one environmental measure (environmental vulnerability), per the ecological perspectives (Bronfenbrenner and Morris, 2007; Capra and Jakobsen, 2017). Our resultant five hypotheses predict millennials' attitudes toward the triple bottom-line of CR.

Culture-based predictors of CR attitudes

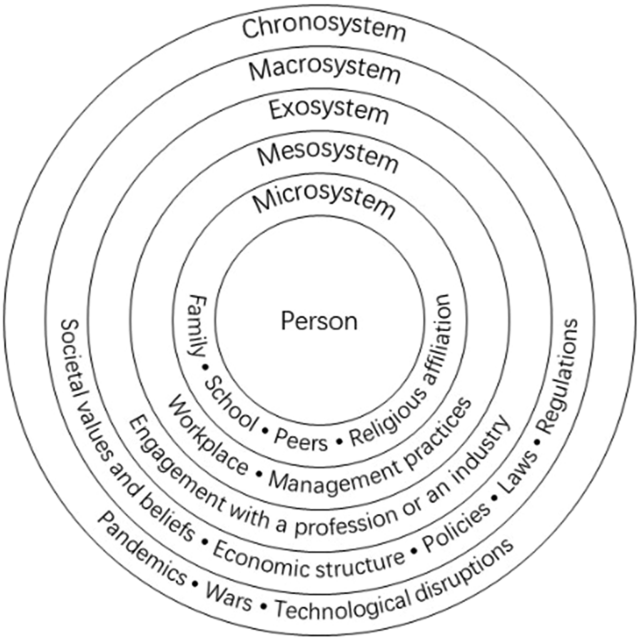
We begin by considering how culture-based predictors may potentially shape CR attitudes. Inglehart's (1997) cross-culturally relevant, society-level measures of survival/self-expression and traditional/secular-rational values provide a holistic paradigm that considers major areas of human concern, including religion, politics, economics and social life (Inglehart and Baker, 2000; Inglehart and Welzel, 2005). Inglehart (1997) highlights that societies develop values to enable their members to survive and thrive; as a result, societal values, attitudes and perceptions are corresponding responses to the existential conditions. The first values' set represents a continuum whereby survival values represent one extreme and self-expression

values represent the other extreme. The second values' set also represents a continuum with traditional values on one extreme and secular-rational values on the other.

Survival/self-expression values. Inglehart's (1997) survival/self-expression values dimension is concerned with the pervasiveness of materialist or postmaterialist values in a society. Enduring difficult economic, socio-political and biophysical environmental circumstances in order to ensure security and survival has been theorized as a main driving motivation within materialistic societies (Inglehart and Baker, 2000). As materialistic societies tend to be less industrialized and/or less politically stable, people often maintain a greater emphasis on survival, such as economic and physical security of the self, family and community.

Societies dominated by people holding survival values are likely to have a high propensity to avoid economic adversity in their life and have a strong orientation to safeguard and invest in their financial growth (see Yang *et al.*, 2012). Therefore, they are likely to have a population which generally perceives that the role of business should be limited to more traditional functions, such as profit maximization and continuous market growth. From this point of view, people holding survival values are likely to be more concerned with economic survival and the need for business to put their primary emphasis upon engaging in basic economic functions and stimulating economic activity, before pursuing activities such as social and environmental responsibilities.

Conversely, societies that are postmaterialist tend to be more economically and technologically advanced and/or are governed by more stable democratic systems (Inglehart, 1997; Inglehart and Welzel, 2005). In these societies, issues relating to subjective well-being and egalitarianism appear to take center stage; and therefore, people in these societies tend to place importance on self-expression goals and quality of life concerns. Furthermore, from this frame of reference, societies dominated by people who hold self-expression values are likely to have populations that generally perceive the role of business should have moved beyond



Source(s): Adapted from the text of Bronfenbrenner and Morris (2007)

Figure 1. The ecological systems theory

simply maintaining and/or expanding market share. Instead, businesses should focus on enhancing the social and environmental interests of their communities and humanity (Capra and Jakobsen, 2017). As such, self-expression values are likely to be associated with more pro-social and pro-environmental CR attitudes. Thus, we propose the following hypotheses:

H1a. In societies that less strongly embrace self-expression values (more strongly embrace survival values), millennials are more likely to hold the attitude that businesses have the duty to engage in economic CR.

H1b. In societies that more strongly embrace self-expression values (less strongly embrace survival values), millennials are more likely to hold the attitude that businesses have the duty to engage in social CR.

H1c. In societies that more strongly embrace self-expression values (less strongly embrace survival values), millennials are more likely to hold the attitude that businesses have the duty to engage in environmental CR.

Traditional/secular-rational values. Inglehart's (1997) second bipolar dimension, traditional/secular-rational values, is concerned with the importance and centrality of religion within a society. Not independent from the previous dimension, Inglehart (2000) proposes that religious orientation through the holding of traditional values is linked to a society's sense of physical and economic survival. Indeed, he states, "one of the key functions of religion was to provide a sense of certainty in an insecure environment" (p. 224). Insecurity intensifies the psychological need for belief in a higher power.

The traditional values pole emphasizes importance of deference to the nation, authority and family because allegiance/affiliation to these helps to ease some of the insecurities (Inglehart and Baker, 2000). In these societies, socially mandated reciprocal obligations are crucial and necessary to contribute and maintain these affiliations. These reciprocal obligations suggest a generational link whereby custom and normative social exchanges are reinforced between businesses and other members of society (Campbell, 1981). Based on this perspective, in traditional-oriented societies, millennials are likely to believe that the primary objective of business should be to engage in activities that serve to improve the stability of the nation and family and therefore to engage in economic and social CR.

Societies with a greater level of secular-rational values demonstrate opposite patterns (Inglehart and Welzel, 2005). In these societies, religion is less important. Peace, prosperity and welfare provision have produced an unprecedented sense of security and replaced the need for religious and communal reassurance and obligations with a growing concern for the meaning and purpose of life (Inglehart, 2000). Inglehart (2000) further suggests that societies, which embrace more secular-rational values, lead to a rise of new social movements concerning a breadth of non-traditional issues from environment to gender equality where ties to tradition and hierarchical authority are questioned and new status quo arrangements are forged. In these secular-rational societies, there is an increased concern for meeting international human rights standards as well as enhancing efforts toward global environmental sustainability (Hassoun, 2012). Based on this perspective, in secular-rational-oriented societies, millennials are likely to agree that it is the duty of businesses to engage in higher-order environmental responsibilities. Thus, we propose the following hypotheses:

H2a. In societies that less strongly embrace secular-rational values (more strongly embrace traditional values), millennials are more likely to hold the attitude that businesses have the duty to engage in economic CR.

H2b. In societies that less strongly embrace secular-rational values (more strongly embrace traditional values), millennials are more likely to hold the attitude that businesses have the duty to engage in social CR.

H2c. In societies that more strongly embrace secular-rational values (less strongly embrace traditional values), millennials are more likely to hold the attitude that businesses have the duty to engage in environmental CR.

Structure-based predictors of CR attitudes

The breadth of factors that fall within the realm of structure-based predictors are vast. We consider here economic, institutional and environmental factors as structure-based predictors, similar to the ecological systems framework (Bronfenbrenner, 2005) that considers social-economic status, regulations, laws and policies as the macro factors. As we explain below, we include environmental factors as part of the structure-based predictors because of its implication on the resource availability in the respective societies. Together, these structure-based factors create the operational landscape in which businesses must navigate. Additionally, they contribute to shaping the societal expectations regarding the social role that businesses should fulfill. Some of the earliest indicators that were suggested to capture structure-based influences were based on neoclassical frameworks that included, for example, average societal income or GDP per capita (Klugman *et al*., 2011). Although useful, a focus on income alone may be overly restrictive. Ecological economists note that a focus on more holistic considerations is essential. Drawing from this sentiment, we examine two more complex structural components: income inequality (economic) and welfare socialism (political).

Income inequality. The presence of income inequality within a society, therefore, is likely to create a sense that there is a need to mend the tears in the social fabric. High income inequality can lead to a range of societal challenges, prompting expectations for corporations to play a more significant role in addressing these issues. First, income inequality is associated with persistent low wage for the poorer segments of society. In those countries, millennials may develop the perceptions for corporate initiatives to address this inequality through employment practices (see Cobb, 2016). For example, the large income gap between the top and bottom levels of employees that exists in English-speaking countries, with a significant increase in top incomes, underscores the importance of CR in mitigating these disparities (Tsui *et al.*, 2018). On the other hand, in developing countries where there is wide-spread poverty, businesses are expected or compelled to help alleviate people's livelihood and the associated social problems (Idemudia and Osayande, 2018). Additionally, in countries with large income disparities, there is a preference for higher tax rates to facilitate income redistribution and enhance public services, indicating a societal expectation for corporations to contribute to addressing income inequality (Watanabe, 2019). Income inequality can also impact health and job-related outcomes, with implications for social welfare and stability (Muckenhuber *et al*., 2014). Moreover, financialized corporate governance that promotes executive compensation based on financial measures such as return on investment and stock price, has been associated with higher income inequality globally, underscoring the need for responsible corporate practices to mitigate these effects (Movahed, 2023). In conclusion, the expectation for higher corporate responsibilities in countries with high income inequality stems from the complex interplay between economic disparities, societal challenges and the role of corporations in fostering sustainable and equitable development. Therefore, in societies with higher levels of income inequality, it is possible that the millennials will perceive that businesses have a duty to engage in CR initiatives that help to serve those less fortunate to augment the sub-systems within which they must survive. Furthermore, following this rationale, the greater the income disparity, the more likely it is that people will perceive it the duty of business to engage in economic, social and environmental CR. Thus, we propose the following hypotheses:

H3a. In societies with higher levels of income inequality, millennials are more likely to hold the attitude that businesses have the duty to engage in economic CR.

H3b. In societies with higher levels of income inequality, millennials are more likely to hold the attitude that businesses have the duty to engage in social CR.

H3c. In societies with higher levels of income inequality, millennials are more likely to hold the attitude that businesses have the duty to engage in environmental CR.

Welfare socialism. Cullen *et al.* (2004) use this concept to describe the "level of active government intervention in a society's economic coordination and the appropriation and redistribution of economic wealth, thereby increasing social control" (p. 415). In societies with high levels of welfare socialism, the government provides protection for its citizens from fluctuations of the market and therefore entitles people to a host of services and resources that help to decrease dependency on competitive market forces (Cullen *et al.*, 2004). This is in contrast to capitalist states that reward self-serving economic advancement where everyone looks out for his/her own interests. In short, capitalist states prefer limited government intervention and implicitly allow businesses to focus on profit maximization while welfare socialism states prefer businesses to join-force with the government in promoting social and economic equity.

This contrast is reasonably analogous to Matten and Moon's (2008, 2020) contrast between the political system and state power of Europe versus the USA, respectively. In regard to the first, people tend to hold less positive attitudes toward economic CR in societies with greater active government interventions (i.e. welfare socialism), including the provision of services, resources and economic protection for its citizens. In Europe, for example, the power of the state is greater, and in turn, there is a clearer institutional framework and societal business system that centralizes formal, mandatory and codified rules or laws defining the responsibility of corporations to practice implicit forms of CR as part of their regular business responsibility (Matten and Moon, 2008). In the USA, with a lower level of welfare socialism, similar CR activities are less embedded and therefore less likely to be perceived as the responsibility of businesses (Matten and Moon, 2008). Thus, we propose the following hypotheses:

H4a. In societies with higher levels of welfare socialism, millennials are less likely to hold the attitude that businesses have the duty to engage in economic CR.

H4b. In societies with higher levels of welfare socialism, millennials are more likely to hold the attitude that businesses have the duty to engage in social CR.

H4c. In societies with higher levels of welfare socialism, millennials are more likely to hold the attitude that businesses have the duty to engage in environmental CR.

Environmental predictors of CR attitudes. Environmental predictors are a unique category of structure-based predictors considered here as it involves the physical environment which comprises an array of elements in the biosphere. Furthermore, while they are impacted by human actions, they are not humanly devised like cultural values and institutions (North, 1991) that can be measured via survey questionnaires. Any metric on the health of the environment requires multiple measures from different science disciplines, making it challenging to have a global index (see Shao *et al.*, 2014). We attribute this to the paucity of business research examining the link between the influences of the natural environment within a typical ecological framework (e.g. Bronfenbrenner, 2005) on individuals' attitudes. Ecology emphasizes a system perspective in understanding the interplay between organisms and their living habitat. Related to ecology and relevant to our physical environment is the concept of environmental vulnerability. Environmental vulnerability adopts a wide, systems-based approach to assess the environment, and as such, it concerns "the potential for attributes of any system, human or natural, to respond adversely to events" (Kaly *et al.*, 2005, p. 3). According to this parameter, higher vulnerability indicates higher threat to the habitat, and implies that in the event of a hazardous occurrence (e.g. natural hazards, human-made pollutants and climate change), these societies will suffer losses in the diversity, extent, quality and function of their ecosystems, ultimately leading to a decreased ability to sustain life.

Environmental vulnerability provides a valuable indication of how sustainably humans are living within their environment in order to cope with any future hazardous events. This concept suggests that environments that previously endured more damage are likely to be more at risk of future damage than other societies and they are rated more environmentally vulnerable (Kaly *et al*., 2005). This, coupled with the general threat that the resources in the environment are exhausting and fail to replenish themselves (Toth and Szigeti, 2016), signals that economic profit is in a trade-off relationship with environmental responsibility. When the environment is at risk, it becomes the shared responsibility of the entire community, including businesses, to contribute to its preservation. Consequently, a negative relationship is anticipated between environmental vulnerability and profit-driven responsibility – that is, the pursuit of economic responsibility. In an environmentally vulnerable area where resources are getting limited, people will likely expect others in the community to take care of each other. The heightened sense of community also leads to an increased expectation on businesses' social responsibility as community would like to see business do the right things. That would include helping solve social program, adhering to law and actively playing a role in the society that goes beyond the mere generation of profits. Millennials, facing higher levels of environmental vulnerability, are likely to advocate the importance of business engaging in social and environmental CR over economic CR. Thus, we propose the following hypotheses:

H5a. In societies with higher levels of environmental vulnerability, millennials are less likely to hold the attitude that businesses have the duty to engage in economic CR.

H5b. In societies with higher levels of environmental vulnerability, millennials are more likely to hold the attitude that businesses have the duty to engage in social CR.

H5c. In societies with higher levels of environmental vulnerability, millennials are more likely to hold the attitude that businesses have the duty to engage in environmental CR.

Method

Data, sample and procedure

The study sample comprised 3,572 business school students from 28 societies across five continents collected between 2003 and 2009. They were born around 1985, near the end of the millennial (Gen Y) generation (1981–1996), although some may have come from the beginning of Gen Z (1997–2012). Accordingly, we label them as millennials. These millennials are likely ascending to or have ascended to various leadership roles in today's business world. Further details on the data are available in the supplementary materials file. We provide the demographic characteristics (age and gender) for each society's sample in Table 1, and summary statistics of the individual-level variables in Table 2.

Surveys were completed in the local languages of the societies in which data were collected, with India being the one exception, where English was the business language. To develop the survey for each society, we used standard translation/back-translation procedures in which one person translated the questionnaire from English to the national language, and then a second person independently translated the questionnaire from the national language back to English (Brislin, 1986).

Measures

Attitudes toward corporate responsibilities. The 25 items for attitudes toward CR consisted of four 4-item subscales regarding discretionary, ethical, legal, and economic responsibilities (Maignan and Ferrell, 2003) as well as a 9-item environmental CR measure (Branzei and Vertinsky, 2002; Egri and Hornal, 2002). Respondents were asked to rate each of these 25 CR

Table 1. Demographic characteristics of societal samples

	N	Age (Mean)	Gender (% Female)
Australia	113	21.1	42
Austria	89	23.1	65
Brazil	91	20.5	42
Canada	100	19.8	50
China	139	21.0	63
Colombia	83	20.4	47
Croatia	67	20.2	26
Czech Republic	103	22.1	65
Estonia	92	20.3	63
France	89	23.4	38
Hong Kong	159	20.5	59
India	50	21.8	18
Italy	96	21.9	44
Lebanon	119	21.3	51
Lithuania	120	20.3	79
Mexico	108	20.6	67
New Zealand	125	21.1	58
Pakistan	110	19.3	42
Peru	91	18.5	54
Poland	81	21.6	56
Russia	150	19.5	67
Singapore	494	21.7	53
South Korea	117	24.1	30
Spain	114	22.9	55
Switzerland	307	23.2	38
Taiwan	115	20.3	61
Thailand	155	20.9	74
US	95	21.8	42
Total	3,527	21.3	53

Source(s): Compiled by the authors

items based on the degree to which they agreed that it was the duty of businesses to engage in each, using a nine-point Likert-type scale (1 = strongly agree to 9 = strongly disagree; items were reverse scored to indicate support for CR activities). We assessed the measurement model using confirmatory factor analysis, and measurement invariance across societies using multi-group confirmatory factor analysis. Based on measurement invariance results and reliability analysis, we derived a three-dimensional CR scale with 15 items. The scale items used in this study are provided in Appendix. The details of scale derivation, along with the associated measurement invariance and reliability analyses, are available in the supplementary materials file.

Cultural values. The World Values Survey (WVS) society scores were used for the two societal-level cultural values dimensions of survival/self-expression and traditional/secular-rational values (www.worldvaluessurvey.org). For 19 of the 28 countries, we used the Wave 5 data. However, for Austria, Croatia, Czech Republic, Estonia, Lithuania, Pakistan, Peru and Singapore – which were not participatory countries in Wave 5 – we used the data from Wave 4 instead. For the first dimension, survival values represent the lower scores and self-expression values represent the higher scores. For the second dimension, traditional values represent lower scores and secular-rational values represent higher scores. Since Lebanon has not been included in the WVS surveys, our tests of the cultural values hypotheses excluded this society. Table 3 provides the data of the societal predictors.

Table 2. CR Attitudes and universalism values: means, standard deviations, and scale reliabilities

	Social CR			Environmental CR			Economic CR			Universalism		
	Mean	SD	ρ	Mean	SD	ρ	Mean	SD	ρ	Mean	SD	α
Australia	6.74	0.78	0.85	6.49	1.11	0.89	5.14	1.60	0.67	4.44	1.18	0.83
Austria	7.04	0.71	*0.56*	6.85	0.94	0.72	4.19	1.33	0.69	3.93	0.94	0.71
Brazil	7.15	0.59	0.81	6.63	0.78	0.82	4.80	1.59	0.82	4.46	1.04	0.79
Canada	6.92	0.80	0.78	6.53	0.95	0.83	4.66	1.62	0.70	4.17	0.96	0.82
China	6.25	0.72	*0.56*	6.72	0.87	0.69	6.18	1.44	0.68	4.53	0.87	0.77
Colombia	6.99	0.78	0.63	6.91	0.86	0.72	5.68	1.30	0.60	4.21	1.02	0.74
Croatia	6.32	0.85	0.65	6.80	0.91	0.66	5.89	1.28	*0.55*	4.68	1.27	0.75
Czech Rep	6.33	0.77	0.61	6.93	0.92	0.74	5.65	1.50	0.74	3.64	0.83	0.66
Estonia	6.62	0.80	0.80	6.52	1.05	0.70	5.48	1.59	0.69	4.19	1.13	0.81
France	6.83	0.78	0.80	6.95	0.87	0.77	5.55	1.41	0.66	3.91	1.06	0.76
Hong Kong	6.52	0.75	0.65	6.58	0.90	0.73	6.08	1.40	0.70	4.55	0.92	0.76
India	6.48	1.08	0.80	6.45	1.14	0.76	6.33	1.75	0.73	4.71	1.01	0.70
Italy	6.34	0.80	0.60	6.90	0.87	0.66	5.17	1.60	0.73	4.16	1.10	0.75
Lebanon	6.52	0.97	0.78	6.65	0.76	0.79	5.44	1.73	0.70	4.22	0.99	0.66
Lithuania	6.24	0.75	0.67	6.03	0.90	0.69	6.43	1.59	0.73	3.81	0.94	0.72
Mexico	6.94	0.70	0.75	6.83	0.81	0.70	5.94	1.29	0.69	4.58	1.07	0.73
New Zealand	6.51	0.90	0.82	6.43	1.07	0.88	5.28	1.96	0.73	4.16	1.09	0.79
Pakistan	6.76	0.87	0.80	6.49	0.89	0.76	5.76	1.84	0.72	4.10	1.07	0.71
Peru	6.84	0.85	0.85	6.85	0.83	0.73	5.61	1.29	0.61	4.82	0.93	0.64
Poland	6.45	0.96	0.82	6.67	0.89	0.79	5.44	1.59	0.63	4.22	1.01	0.77
Russia	6.63	0.77	*0.59*	6.40	1.06	0.78	6.90	1.19	0.70	3.92	1.23	0.78
Singapore	6.06	0.69	0.75	6.94	0.83	0.80	5.60	1.79	0.75	3.92	1.11	0.76
S. Korea	6.57	0.79	0.68	6.22	0.96	0.78	5.56	1.62	0.79	4.01	0.93	0.82
Spain	6.74	0.74	0.62	7.19	0.81	0.77	5.47	1.31	0.61	4.38	0.93	0.73
Switzerland	6.61	0.86	0.68	7.03	0.91	0.79	4.94	1.52	0.75	4.02	0.99	0.75
Taiwan	6.47	0.73	0.74	6.41	0.87	0.62	6.64	1.22	0.61	4.26	1.08	0.79
Thailand	6.30	0.80	0.67	6.38	0.84	0.66	5.69	1.46	*0.36*	3.66	0.85	0.55
US	6.80	0.78	0.76	6.31	0.87	0.76	5.42	1.46	0.63	4.35	1.02	0.73

Note(s): For the CR questions, we used a 9-point Likert-type scale (1 = strongly agree to 9 = strongly disagree); we reversed the scores before analysis. For the universalism questions, we used a 9-point Likert scale (−1 = "opposed to my values" to 7 = "of supreme importance")
Source(s): Compiled by the authors

Income inequality. The Gini index for 2005 was used to measure income inequality in a society (CIA World Factbook, https://www.cia.gov/library/publications/the-world-factbook/). The Gini index ranges from 0 (equality) to 100 (inequality).

Welfare socialism. To calculate an index for welfare socialism in a society, publicly available data were combined following the previous published work using these measures (as Esping-Andersen, 1990; Martin *et al.*, 2007). The three-item measure consisted of: public social security expenditure as a percentage of GDP (International Labor Organization; http://www.ilo.org); total government tax revenue as a percentage of GDP, and total government expenditures as a percentage of GDP (IMF; http://www.imf.org). The three-year (2003–2005) average scores for each indicator were standardized and then averaged for a composite measure that represents the level of government intervention and welfare safety nets in a society (see Martin *et al.*, 2007). This three-item measure had a scale reliability of $\alpha = 0.86$.

Environmental vulnerability index (EVI). The publicly available 2005 EVI was used as a measure of environmental vulnerability. This measure is compiled by the South Pacific Applied Geoscience Commission (SOPAC) and the United Nations Environment Program (UNEP) (Kaly *et al.*, 2005). Each society has a single composite score within one of five vulnerability classifications. The composite score is comprised of 50 indicators used for estimating the vulnerability of the environment of a society to future shocks, damage and

Table 3. Societal-level predictors

Society	Survival/Self expression value	Traditional/ Secular Rational values	Income inequality	Welfare state	Environ-mental vulnerability
Australia	1.75	0.21	35.20	0.32	238
Austria	1.43	0.25	29.10	1.90	369
Brazil	0.61	−0.98	57.00	0.39	281
Canada	1.91	−0.26	32.60	0.34	251
China	−1.16	0.80	46.90	−1.08	360
Colombia	0.60	−1.87	58.60	−0.65	296
Croatia	0.31	0.08	29.00	0.86	343
Czech Rep	0.38	1.23	25.40	0.33	315
Estonia	−1.19	1.27	35.80	0.27	280
France	1.13	0.63	32.70	1.85	361
Hong Kong	−0.98	1.20	43.40	−1.02	309
India	−0.21	−0.36	36.80	−1.01	385
Italy	0.60	0.13	36.00	1.39	386
Lebanon	.	.	45.00	−0.60	387
Lithuania	−1.00	0.98	36.00	0.30	314
Mexico	1.03	−1.47	46.10	−0.99	306
New Zealand	1.86	0.00	32.90	0.00	289
Pakistan	−1.25	−1.42	30.60	−0.52	373
Peru	0.03	−1.36	52.00	−0.81	268
Poland	−0.14	−0.78	34.50	0.99	354
Russia	−1.42	0.49	39.90	0.17	273
S. Korea	−0.28	−0.64	31.60	−0.28	373
Singapore	−1.37	0.61	42.50	−1.12	428
Spain	0.54	0.09	34.70	0.54	352
Switzerland	1.90	0.74	33.70	0.13	348
Taiwan	−1.18	1.16	33.00	−0.77	324
Thailand	0.01	−0.64	42.00	−0.93	308
US	1.76	−0.81	40.80	−0.01	300
Average	0.21	−0.03	38.35	0.00	327.54

Source(s): Compiled by the authors

degradation. Specifically, the composite score consists of measures of ecosystem resources and services, human-ecological processes, weather and climate, geography and geology. The scale ranges from resilient to extremely vulnerable, with a higher score indicating greater vulnerability. The EVI for societies in our study ranged from a score of 238–428.

Individual-level controls. We included a number of individual-level control variables in analyses. Previous research has found that personal values orientations are related to environmental concern and pro-environmental behavior (De Groot and Steg, 2007; Schultz *et al*., 2005). In particular, universalism values have been identified as consistently positively related to support for social and environmental accountability (Fukukawa *et al*., 2007; Schultz *et al*., 2005). Universalism values relate to understanding and protecting the welfare for all people and for nature. Hence, we included the universalism values measure from the Schwartz Values Survey (SVS) instrument which has been extensively used in cross-cultural studies of personal values orientations (Schwartz, 1992). The universalism values scale consists of eight items (nine-point Likert scale; −1 = "opposed to my values" to 7 = "of supreme importance"). For the 28 societies, the average of the scale reliabilities (Cronbach α) for universalism values was $\alpha = 0.74$ (s.d. = 0.06), and the within-subject standardized scores were used in analyses (Hanges, 2004). In addition, research has shown that personal demographic characteristics are related to personal values, ethical sensitivity, prosocial behavior and environmental attitudes

and behaviors (e.g. Ruiter and De Graaf, 2006). Thus, we also included participant age (years) and gender (0 = male; 1 = female) as covariates in the analyses.

Analyses

We conducted multilevel analyses and tested our hypotheses by examining the cross-level direct effect of each macro societal factor on the individual-level variables. We did so to address the limitations of the conventional method that compares society-by-society means or their associations, which disregards the within-society variances in sub-samples (Ralston *et al*., 2022).

We used hierarchical linear modeling (HLM) to test our hypotheses (see Raudenbush and Bryk, 2002). Two sets of HLM intercepts-as-outcomes models were estimated to assess the influence of the cultural factors and the structural factors on respondents' attitudes toward CRs. The first set of models included the societal culture variables of survival/self-expression and traditional/secular-rational values; the second set included the societal structure variables of income inequality, welfare socialism and environmental vulnerability. In all models, the individual-level control variables were universalism values and participant age and gender. Societal-level variables were grandmean-centered and individual-level variables were groupmean-centered (per Raudenbush and Bryk, 2002) in the HLM analyses.

As shown in Table 2, there were five societies with CR attitudes scale reliabilities (three for social CR and two for economic CR) that were below the 0.60 cutoff level used in previous cross-cultural research (e.g. Fu and Yukl, 2000; Parboteeah *et al*., 2009). Alternative HLM models with reduced samples were estimated for social CR (25 societies) and economic CR (26 societies). Model comparisons showed no differences (in terms of significant and nonsignificant predictors) for the economic CR models but two differences for the social CR models. Hence, we proceeded with the reduced sample of societies for the social CR models. The intraclass correlation coefficient (ICC) for the null models for the three CR attitudes dependent variables indicated sufficient between-group variance to proceed with HLM analyses [8.5% social CR (25 societies); 7.0% environmental CR (28 societies); 12.4% economic CR (26 societies); all χ^2 significant at $p < 0.001$ level].

Results

The means, standard deviations and correlations for the societal-level and the individual-level variables for the total sample are presented in Table 4. The results of the HLMs testing hypotheses are presented in Table 5.

Societal culture hypotheses

Hypothesis 1 proposed that millennial participants in societies that less strongly embrace self-expression values (more strongly embrace survival values) would be more likely to perceive it the duty of business to engage in economic CR (H1a) whereas millennials in societies with more self-expression values would be more likely to perceive it the duty of business to engage in social CR (H1b) and environmental CR (H1c). Consistent with H1a and H1b, societal self-expression values were negatively related to economic CR ($\gamma = -0.370$, $p < 0.001$), and positively related to social CR ($\gamma = 0.086$, $p < 0.05$), respectively. Inconsistent with H1c, self-expression values were not significantly related to environment CR. We, therefore, found support for H1a and H1b but not H1c. The results of hypothesis tests are presented in Table 6.

Hypothesis 2 proposed that millennial participants in societies with less strongly embraced secular-rational values (more traditional values) would be more likely to perceive it the duty of business to engage in economic CR (H2a) and social CR (H2b) whereas millennials in societies with more secular-rational values (less traditional values) would perceive it the duty of business to engage in environmental CR (H2c). Inconsistent with H2, secular-rational

Table 4. Descriptive statistics for total sample: means, standard deviations and correlations

		Mean	SD	1	2	3	4	5		
Individual-level[a]										
1	Social CR	6.59	0.83							
2	Environmental CR	6.61	0.96	−0.19***						
3	Economic CR	5.60	1.62	−0.36***	−0.38***					
4	Universalism	4.16	1.05	0.11***	0.20***	−0.18***				
5	Age	21.33	2.20	−0.09*	0.12***	−0.10**	−0.01			
6	Gender	0.53	0.50	0.06***	0.02	−0.07*	0.03*	−0.19***		
Societal-level[b]				1	2	3	4	5	6	7
1	Social CR	6.61	0.80							
2	Environmental CR	6.65	0.91	0.16						
3	Economic CR	5.61	1.51	−0.46*	−0.35					
4	Survival(−)/Self-expression(+)	0.21	1.13	0.43*	0.36	−0.70				
5	Traditional(−)/Secular(+)	−0.03	0.92	−0.42*	−0.15	0.19	−0.26			
6	Income inequality	38.55	8.33	0.38*	−0.04	0.08	−0.11	−0.47*		
7	Welfare socialism	0.00	0.89	0.17	0.33	−0.50	0.43*	0.19	−0.48*	
8	Environmental vulnerability	327.54	47.39	−0.35	0.17	0.02	−0.28	0.11	−0.22	−0.02

Note(s): *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

[a]Individual level: $N = 3{,}527$; gender coded as 1 = female and 0 = male

[b]Societal level: $N = 28$ except for WVS values $N = 27$

Source(s): Compiled by the authors

Table 5. Results for HLM analyses of societal influences on CR attitudes

		Economic CR Coeff.	s.e.	Social CR Coeff.	s.e.	Environmental CR Coeff.	s.e.
Cultural model[a]							
Intercept	γ_{00}	6.137^{***}	0.363	7.157^{***}	0.200	5.988^{***}	0.214
Age	γ_{10}	−0.017	0.016	-0.029^{**}	0.009	0.028^{**}	0.010
Gender	γ_{20}	-0.356^{***}	0.061	0.077^{*}	0.034	0.109^{**}	0.036
Universalism	γ_{30}	-0.321^{***}	0.029	0.091^{***}	0.016	0.161^{***}	0.017
Survival/Self-expression	γ_{01}	-0.370^{***}	0.078	0.086^{*}	0.042	0.072	0.044
Traditional/Secular	γ_{02}	−0.027	0.097	-0.097^{*}	0.048	−0.036	0.054
Structural model[b]							
Intercept	γ_{00}	6.279^{***}	0.368	7.059^{***}	0.197	5.991^{***}	0.210
Age	γ_{10}	−0.024	0.016	-0.024^{**}	0.009	0.028^{**}	0.010
Gender	γ_{20}	-0.351^{***}	0.061	0.088^{*}	0.034	0.103^{**}	0.036
Universalism	γ_{30}	-0.315^{***}	0.029	0.091^{***}	0.016	0.161^{***}	0.017
Income inequality	γ_{01}	−0.013	0.014	0.019^{**}	0.005	0.008	0.007
Welfare socialism	γ_{02}	-0.414^{**}	0.133	0.088	0.055	0.121^{*}	0.061
Environmental vulnerability	γ_{03}	−0.000	0.002	−0.001	0.001	0.001	0.001

Note(s): [a]$N = 24$ societies for social CR, and $N = 27$ societies for environmental CR and $N = 25$ societies for economic CR
[b]$N = 25$ societies for social CR, and $N = 28$ societies for environmental CR and $N = 26$ societies for economic CR
$^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$
Source(s): Compiled by the authors

Table 6. Summary of results of hypothesis tests

Independent variable	CR dimension	Hypothesis	Finding of sub-hypotheses
Culture-based			
H1: Self-expression values	*Economic CR*	H1a. Negative	SUPPORTED
	Social CR	H1b. Positive	SUPPORTED
	Environmental CR	H1c. Positive	n.s.
H2: Secular-rational values	Economic CR	H2a. Negative	n.s.
	Social CR	H2b. Negative	SUPPORTED
	Environmental CR	H2c. Positive	n.s.
Structure-based			
H3: Income inequality	Economic CR	H3a. Positive	n.s.
	Social CR	H3b. Positive	SUPPORTED
	Environmental CR	H3c. Positive	n.s
H4: Welfare socialism	*Economic CR*	H4a. Negative	SUPPORTED
	Social CR	H4b. Positive	n.s.
	Environmental CR	H4c. Positive	SUPPORTED
H5: Environmental vulnerability	Economic CR	H5a. Negative	n.s.
	Social CR	H5b. Positive	n.s.
	Environmental CR	H5c. Positive	n.s.

Note(s): n.s. = not significant
Source(s): Compiled by the authors

values were not significantly related to economic CR or environmental CR. However, consistent with H2, secular-rational values were negatively related social CR ($\gamma = -0.097$, $p < 0.05$). We only found support for H2b.

Structural hypotheses

Hypothesis 3 proposed that the level of income inequality in a society would be positively related to the importance attributed to economic CR (H3a), social CR (H3b) and environmental CR (H3c). Consistent with H3, income inequality was positively related to the importance attributed to social CR ($\gamma = 0.019$, $p < 0.01$). Inconsistent with H3, income inequality was not significantly related to economic CR or environmental CR. Hence, we only found support for H3b.

Hypothesis 4 proposed that societal welfare socialism would be positively related to the perception of the duty of business to engage in social CR (H4b), and environmental CR (H4c) but negatively related to economic CR (H4a). Consistent with H4a and H4c, welfare socialism was negatively related to economic CR ($\gamma = -0.414$, $p < 0.01$) while positively related to environmental CR ($\gamma = 0.121$, $p < 0.05$). Inconsistent with H4, welfare socialism was not significantly related to social CR. Hence, we found support for H4a and H4c but not for H4b.

Hypothesis 5 proposed that the environmental vulnerability of a society would be negatively related to the likelihood to perceive it the duty to engage in economic CR (H5a) and positively related to social CR (H5b) and environmental CR (H5c). Inconsistent with H5, environmental vulnerability was not significantly related to economic CR, social CR or environmental CR. Hence, H5a, H5b and H5c were not supported.

Individual-level demographic characteristics

For the two sets of HLM models, participant age was found to be negatively related to the importance of social CR ($p < 0.05$), positively related to environmental CR ($p < 0.01$) and not significantly related to economic CR. In respect to gender, female participants attributed higher importance to social CR ($p < 0.05$) and to environmental CR ($p < 0.01$), whereas male participants attributed higher importance to economic CR ($p < 0.001$). Universalism values were positively related to the importance of social CR and environmental CR ($p < 0.001$), negatively related to economic CR ($p < 0.001$).

Discussion

As one of the few large-scale, multi-society, multilevel studies on CR, our findings offer new insights into the ecological systems perspective (Bronfenbrenner, 2005) with regards to how macro-system influences shape millennials' attitudes toward CR. By exploring through a multidisciplinary lens, we identify both culture-based and structure-based predictors of CR attitudes, extending the ecological model to the domain of CR and aligning with the call for more multilevel and multidisciplinary studies (Rupp *et al.*, 2024). We found support for the associations between self-expression values and economic and social CR, between secular-rational values and social CR, between income inequality and social CR, as well as between welfare socialism and both economic CR and environmental CR, but not for any other relationship that we tested. In the following discussion, we focus on the hypotheses for which we did not find support, and we derive theoretical and research insights from them.

Culture-based predictors

Millennials' cultural backgrounds were not related to environmental CR, suggesting limited predictive power for environmental CR and indicating that attitudes toward environmental responsibility may transcend cultures, leading to non-significant findings. This aligns with mixed results in existing literature on the value-environmental attitude relationship (Cox *et al.*, 2011; Dietz *et al.*, 2002; Haller and Hadler, 2008). Some scholars suggest that environmental concerns have a global reach (Marquart-Pyatt, 2012) while others argue that environmental responsibility is linked to traditional values in non-Western contexts, such as Japan (Aoyagi-Usui *et al.*, 2003). Accordingly, Japan's concern for the environment, rooted in its history of heavy pollution, aligns with traditional values, which is often viewed as opposing progressive

values. Conversely, in countries such as China, censorship may limit millennials' awareness of environmental threats (e.g. Tilt and Xiao, 2010). This unexpected finding calls for a re-evaluation of Inglehart's post-materialism thesis (2000), especially in developing economies and non-Western cultures (Dunlap and Mertig, 1997).

Structure-based predictors

Income inequality. We found no relationship between income inequality and environmental or economic CRs. This suggests that environmental concerns may transcend not only across cultures, but also across varying economic structures, including income inequality. This supports the idea that environmental issues may have a global reach, or that may lack a consensual awareness among millennials regarding the levels of environmental threat.

Income inequality is a complex phenomenon. While a country's tax regime typically aims to redistribute wealth as we argued, other macro factors – such as political ideology (García-Castro *et al.*, 2019), government intervention and institutional quality (Blancheton and Chhorn, 2021) – might influence perceptions of economic CR. How all these macro factors interact to affect individuals' perceptions of CR is beyond the scope of the present study. The absence of a relationship between income equality and economic CR highlights this complexity. Future studies should consider additional factors that may affect the CR perceptions and a country's income inequality.

Welfare socialism. We found that welfare socialism influences economic and environmental CR, but not social CR. In welfare states, where the government plays a significant role in citizen well-being and wealth redistribution, attitudes toward social CR may vary, leading to no linear relationship. Some may expect businesses to take on more social responsibilities, while others see it as the government's role. A similar divergence could occur in more capitalistic societies with limited government intervention, such as the US, where opinions on the roles of government and businesses substantially differ. Further research is needed to fully explore these findings and the interaction between welfare socialism and political regimes.

Environmental vulnerability. Contrary to our hypothesis, we found no significant relationship between environmental vulnerability of a society and millennials' attitudes toward CR. This non-significant result suggests that there may be a complexity in the relationship between the physical environment and millennials' attitudes. The absence of significant findings could mean that the relationship between vulnerability and attitudes toward CR is not linear. To investigate this possibility, we drew three scatterplots using country-level data. As can be seen (Supplementary Materials), they revealed a random distribution, consistent with the non-significant correlations (Table 4). While there was variance in CR attitudes (Table 2) and the environmental vulnerability indices (Table 3), we can only conclude that environmental threats did not directly impact millennials' CR attitudes. One possibility is that the impact of environmental vulnerability may need to be mediated by factors like, media coverage, to influence attitudes. Without media amplification, the message of environmental degradation may not reach individuals, thus having no impact on their CR attitudes. As we did not collect media data, this represents a future research direction. For instance, reports from China suggest government censorship on climate discussions (Pollard, 2023) could affect how students perceived environmental threats. Conversely, students in countries with heavy media attention on environmental issue, such as those in Europe, might express more extreme views. These divergent views could contribute to the lack of a significant linear relationship between environmental threat and environmental CR attitudes.

Theoretical implications

Our study provides a holistic examination on the macro-systems influences on millennials' CR attitudes. This systems-based view advocates that millennials' CR perceptions are influenced by the multiple systems they were exposed to during their formative years. It highlights the

direct impacts of societal-level factors on individual attitudes and the complex interactions between various ecological layers – micro, meso, exo, macro and chrono – that shape these perspectives. While we focus on the macro-systems factors, future research could incorporate other ecological layers to build a more nuanced model. For example, millennials' CR attitudes could be shaped by personal characteristics in the micro system (e.g. basic values and personality), workplace contexts in the meso system (e.g. organizational culture), industry or professional norms in the exo system (e.g. industry CR practices) and global events (e.g. the COVID pandemic) in the chrono system (see Brammer *et al*., 2020). Researchers could also explore how different systems interact to create conflicts or synergies in shaping CR attitudes using qualitative methodologies (e.g. Jamali *et al*., 2020).

Lastly, our study demonstrates the use of an advanced statistical method to assess macro factors' impact on micro phenomenon, standing at the frontier of similar research and offering more precise insights (e.g. Terpstra-Tong *et al*., 2022). Due to cultural heterogeneity, the validity of country-to-country comparison in assessing CR responses is questionable (Ralston *et al*., 2022). Our multilevel findings contribute to the ongoing debates in the CR literature by providing a more context-sensitive approach to understanding CR attitudes. Most studies have focused on a single-level analysis, using either macro, meso or micro variables. Our unique multi-society study on macro-level factors' impact on micro-level CR attitudes contributes to the micro foundations of the field and offers a basis for more context-sensitive research (Athanasopoulou and Selsky, 2015; Singh *et al*., 2023).

Practical implications

Our study provides insights for governments and policymakers on how to encourage businesses to implement CR. Our results show that higher societal survival values (lower self-expression values) are associated with greater emphasis on economic responsibility but less on social responsibility. Governments in those countries may need to enhance social awareness through school and university curricula and offer tax incentives to boost social CR efforts. In societies aiming to strengthen businesses' social responsibility, promoting self-expression and traditional values via media could be effective. Additionally, welfare states, where more millennials support businesses' environmental responsibility, highlights the connection between social protection and environment protection. Policymakers should consider both social security and environmental sustainability in their strategies (see discussion in Zimmermann and Graziano, 2020).

Limitations and suggestions for future research

In discussing the unsupported findings, we have emphasized some possible directions for further research, including a reevaluation of Inglehart's post-materialism thesis, testing the interaction between welfare socialism and political ideology, examining media coverage of environmental news, exploring multisystem influences in a single model and applying qualitative methods. Additionally, the limitations of our study present opportunities for further research.

A definite strength of this study is its multi-society design and the inclusion of a significantly greater number of societies than previous cross-cultural studies on CR, which makes our global, business-focused data rare. Accordingly, we encourage other CR researchers to form global teams to generate similar large databases for a deeper understanding of business-responsibility phenomena worldwide. Further large-scale studies are needed to confirm and expand our findings regarding the influences of macro-systems on CR attitudes. Future research should also consider other cultural and structural factors, such as flexibility-monumentalism (Minkov and Kaasa, 2022) and the Environmental Performance Index (Wolf *et al*., 2022), which may shed different lights on the variance of CR attitudes across societies.

A limitation of our study is that our data was attitudinal in nature (i.e. degree of agreement) without explicitly testing the link between attitudes and behaviors. While previous research has shown a strong link between attitudes and behaviors (e.g. Ajzen *et al*., 2018), future

longitudinal research is needed to test the assumption that knowing the attitudes of future business leaders toward CR will help to predict their subsequent CR actions. Another limitation is that, while we controlled for gender and found it significant, investigating gender influence was beyond our study's scope. Future research could explore the impact of gender using alternative gender-role variable, such as gender role orientations (Terpstra-Tong *et al*., 2022) and control for other individual-level variables, such as socioeconomic status and multiculturalism (Fitzsimmons *et al*., 2017; Vora *et al*., 2019), to achieve more precise findings.

Regarding survival/self-expression values, we found significance for our survival/self-expression values – social CR hypothesis, but the effect size was small (0.086, $p < 0.05$) compared to that for the survival/self-expression values-economic CR relationship (−0.370, $p < 0.001$). Future studies could explore whether other cultural influences, such as societal self-reliance values (using Triandis and Gelfand (1998) horizontal individualism scale), can predict attitudes toward CR. Alternatively, future research could test the individuals' self-reliance values (Schaumberg and Flynn, 2017) on their CR attitudes.

Finally, our study does not purport to state what the CR attitudes of these respondents are today, but it does provide an insight into where values research indicates their current thinking should be. As previously noted, recent research using SVS data differentiates two types of values stability: rank-order stability and mean-level stability, with rank-order stability being more resilient than the latter. For our study, the rank-order stability perspective is the more pertinent because investing in CR involves making trade-off decisions based on decision makers' values priorities (rank-orderings) and judgments regarding organizational resources. Based on values stability research, we can conclude that millennial-students' CR attitudes will likely extend to their current work settings. Thus, while we would like to be able to definitively predict the future, we must accept providing the trends that we have found, which offer insights into the future business leaders' perspectives on CR. We also acknowledge that our data did not capture the impact of the significant global chrono events in recent decades, such as the Global Financial Crisis, the MeToo movement and the COVID pandemic, which could have influenced people's CR attitudes in the business world. Further research employing a multi-society and multilevel research design will be necessary to validate and extend our research findings.

Conclusion

This is a unique study. It spanned 28 societies. It assessed over 3,500 millennial-aged respondents on their attitudes toward CR following the formative years of their adolescence. Thus, our large multi-society empirical study on CR attitudes proposes that this systematic investigation of the CR attitudes of this generation provides strong evidence that taking a more holistic, multidisciplinary approach is necessary to understand the attitudes of those of this generation. We believe that the framework proposed in this paper should help to further bridge discussions between management and educators/trainers to create an impetus to explore, and hopefully better manage, the culture- and structure-based differences across societies.

However, the exploration of the issues identified in the framework proposed in this study are far from complete. A challenge for future researchers will be to collect data directly from managers and business professionals across a wide range of societies to provide a clearer understanding of CR attitudes and behaviors in the business world. Particularly, future multi-society studies emphasizing the impact that the various system levels (e.g. exo, chrono) have on CR will be crucial to fully understand the process.

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Appendix
Corporate Responsibility (CR) Questionnaire

INSTRUCTIONS: Below are listed a variety of activities that businesses may choose to assume. We are interested in *your* views.

In the space before each item, write the number (1,2,3,4,5,6,7,8,9) that indicates the degree to which you agree or disagree that the business should engage in the activity described for that item. Try to distinguish as much as possible between the items by using all the numbers. You will, of course, need to use numbers more than once.

Strongly Agree		Moderately Agree		Neutral		Moderately Disagree		Strongly Disagree
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**

I believe it is the duty of all businesses to:

Economic CR
- always be concerned first about economic performance
- worry first and foremost about maximizing profits

Social CR
- contribute actively to the welfare of our community (discretionary)
- help solve social problems (discretionary)
- play a role in our society that goes beyond the mere generation of profits (discretionary)
- be committed to well-defined ethics principles (ethical)
- give priority to ethical principles over economic benefits (ethical)
- always submit to the principles defined by the regulatory system (legal)
- train their employees to act within the standards defined by the law (legal)

Environmental CR
- adopt formal programs to minimize the harmful impact of organizational activities on the environment
- assume total financial responsibility for environmental pollution caused by business activities
- devote resources to environmental protection even when economic profits are threatened
- minimize the environmental impact of all organizational activities
- pay the full financial cost of using energy and natural resources
- prevent environmental degradation caused by the pollution and depletion of natural resources

CCSM

Supplementary material
The supplementary material for this article can be found online.

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