Environmental sustainability and corporate social responsibility of business schools: is there evidence of transdisciplinary effects?

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ABSTRACT
This study analyses the relationship of environmental sustainability and the corporate social responsibility (CSR) of business schools by using the partial least squares structural equation modelling (PLS-SEM) empirical approach on a sample of 338 students from South East Europe. In support of the extant theory of responsible management education, emphasizing the transdisciplinary relationship between the Ethics, CSR, and Sustainability (ERS) domains, we found a direct relationship between environmental sustainability and CSR of business schools. However, we empirically verified a path of indirect effects at the institutional level, starting with the idealism of individual students, leading to the CSR institutional involvement of a business school, mediated by its environmental involvement. Provided that the idealistic individuals might be driving the functioning of the individual responsible management education and its domains, we propose the existence of a potential halo effect (‘ERS halo effect’), which has already been described and verified in the corporate sector. We believe that its dynamics, based on the biased assessment of a single business school ERS domain, with its outcomes reflected in the other domains, should be further explored in different institutional and cultural environments.

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1. Introduction
Higher education has recently turned considerable attention to ethics, Corporate Social Responsibility (CSR), and environmental sustainability. The notion of Responsible Management Learning & Education (RMLE) has been introduced, encompassing those three topics as its fundamental dimensions, within an analytical framework of teaching and organizing for responsible individual and organizational learning (Cullen, 2020).

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This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
This paper aims to empirically examine the RMLE emphasis on transdisciplinarity among its three Ethics-csR-Sustainability (ERS) domains (Laasch et al., 2020a), which has not been done before. It also aims to provide an alternative theoretical explanation of the relationships among students’ moral philosophy, pro-environmental behaviour, and their perception of their business school’s institutionalized environmental sustainability and its CSR using PLS-SEM modelling. Our attempt at alternative theoretical modelling of the CSR-sustainability relationship in business schools can be supported by the obtained empirical results. Those confirm a path of indirect effects at the institutional level, starting with the idealism of individual students, leading to the CSR institutional involvement of a business school, mediated by its environmental involvement.

A rationale for research of these topics in business schools has been demonstrated quite some time ago, as they were described in terms of an educational setting, in dire need of teaching and implementing ethics and social responsibility, as well as providing a more comprehensive social and economic impact (Alsop, 2006; Mitroff, 2004). More recently, the same applies to a call for more sustainability-friendly business education (Sidiropoulos, 2014; Storey et al., 2017).

Although the current study is limited to the analysis of a relationship between CSR and environmental sustainability of business schools, it fits nicely into the discussions of transdisciplinarity among the ERS fields (Beckmann et al., 2020; Gröschl & Pavie, 2020; Parkes & Blewitt, 2011), within the business education doxa, set by the Sustainable Development Goals (SDGs) and the United Nations Principles for Responsible Management Education (UN PRME) (Annan-Diab & Molinari, 2017; Storey et al., 2017).

The study consists of seven sections: an introduction is followed by a review of extant theory, an overview of the development of our theoretical framework and hypotheses, a description of research methods, presentation of empirical findings, their discussion, and a conclusion.

2. Theoretical background

Sustainability science is a multi-disciplinary and rapidly evolving research field, involving a mix of technical, biological, and social science topics (Kajikawa et al., 2007), which makes it extremely difficult to delineate a specific (sub)field of sustainability education and clearly describe its relationship to similar, or related topics. This is made increasingly evident by the systematic reviews of the literature (Cheeseman et al., 2019; Menon & Suresh, 2020; Viegas et al., 2016), which do show an increasing interest in sustainability in higher education as an emerging discipline, as well as the understanding of its drivers and limitations. On the other hand, they also indicate that integration of different topics within the field (such as academic teaching and learning, research, the greening of the campus, community outreach), both at the conceptual and practical (policy) levels are still lacking, with the bottom-up initiatives often failing to provide the systematic approach and the top management support (Shawe et al., 2019).
A similar (mis)understanding of the role of environmental sustainability and its relationship with similar disciplines can be found when looking at the academic teaching and practices of responsible management (Laasch et al., 2020b). In this study, we follow the RMLE approach and consider sustainability and CSR as integral and equal parts of the three ERS disciplinary domains (Cullen, 2020; Laasch et al., 2020a), although different theoretical conceptualizations of this relationship have been developed historically (Van Marrewijk, 2003). Our approach is supported by the calls to integrate academic teaching and learning of CSR, environmental sustainability, and sustainable development, considered to be similar or related, but not identical, or hierarchically ordered fields, both at the levels of undergraduate (Da Silva Jr. et al., 2019) and graduate/MBA (Doh & Tashman, 2014) business education.

Calls for integration of CSR and sustainability views, as compatible approaches to stimulating sustainable and ethical business development, have been extended to all organizational practices in higher education (Filho et al., 2019). This is aligned with the transdisciplinarity among the ERS domains of the responsible management concept. Transdisciplinarity is a relevant approach that provides the understanding and relevant solutions to ‘wicked problems’ (McCune et al., 2021), including environmental sustainability and sustainable development (Norton, 2005). However, it should not be reduced to academic teaching and learning only, although it is critical in enabling students to co-operate with relevant stakeholders and lead transformational change (Fam et al., 2018). In the field of higher education, transdisciplinarity should respond to the call for a systemic transformation toward a higher level of sustainability (Beringer & Adomſent, 2008) by being applied to the production of new knowledge and scientific policies (Jahn et al., 2012), as well as all other aspects of business school functioning. If the literature has a point on the transdisciplinary nature of RMLE, academic administrators should be able to achieve a synergetic effect by using the systematic approach in its implementation.

However, there are no empirical studies of the transdisciplinary effects, at least from the students’ point of view, advocated by Kagawa (2007). In this paper, we aim to perform such an analysis. The business ethics dimension of the ERS field seems to be most susceptible to practical research problems due to significant challenges in overcoming the positivist (Crane, 1999) and normative limitations (Rosenthal & Buchholz, 2000). Therefore, the adequate first step in the empirical analysis of RMLE transdisciplinary effects should be performed by checking the relationship of its CSR and sustainability dimensions. The most apparent observed effect of transdisciplinarity could be defined along the lines of behavioural changes, as a result of different initiatives in one of the ERS dimensions (such as the environmental sustainability), while producing effects in another (such as the school’s CSR). Another processual mechanism involving transdisciplinarity could link different aspects of institutional RME involvement. In the empirical part of the study, we will check for the existence of both paths, which will be referred to as the ‘individual’ and the ‘institutional’ one.

Student assessment of academic institutions’ efforts in introducing responsible management might involve potential cognitive biases while assessing the individual dimensions of institutional CSR, based on the general CSR impression (or vice versa). In addition, there could be a cognitive bias in the evaluation of different aspects of
the institutional CSR, based on the perception of an exceptionally positively (or negatively) perceived CSR component/dimension. Such stereotyping is the well-known halo effect, which has been covered by an extensive body of knowledge in psychology, related to judgment and assessment of individuals (Dion et al., 1972; Nisbet & Wilson, 1977; Thorndike, 1920), teams (Naquin & Tynan, 2003), as well as organizations, especially in the research of organizational legitimacy and reputation (Bitektine, 2011). The halo effect can be also found in consumers’ assessment of the CSR performance (Smith et al., 2018), including environmental performance (Park et al., 2020).

If present and relevant, such psychological drivers are likely to cause either a positive (‘angel halo’) or a negative (‘devil halo’) effect in subsequent evaluations of different but related dimensions of organizational CSR. Extant research has confirmed the existence of these biases in the commercial sector. For instance, previous CSR involvement can be used as a defence when responding to negative news (Cho & Kim, 2012). However, such a shield is limited by its strength and works only in the case of a high corporate reputation before the crisis (Coombs & Holladay, 2006). This is confirmed by Hong and Liskovich (2015), who found that the CSR halo effect can be linked to lower fines for the companies found to breach the US Foreign Corrupt Practices Act. In addition, consumers tend to use limited information on some aspects of organizational CSR to create robust assessments of a company’s CSR performance, both within a single and across multiple CSR domains (Smith et al., 2018). Park et al. (2020) show that the ‘angel halo effect’ works for environmental sustainability, as well, by establishing the link between the general social reputation and the media framing of the environmental company performance. Chernev and Blair (2021) argue that the strength of the halo effect, based on consumers’ evaluation of company sustainability, depends on the degree of their concern for ethical issues and their assessment of the company’s pro-social activities. Additional evidence in the academic sector can be found in reporting on HEIs’ pro-social and pro-environmental initiatives (An et al., 2019).

We believe that a similar mechanism might be used as an alternative to the RMLE-implied transdisciplinarity, or the systematic actions of higher education administrators in RMLE implementation, in explaining the relationships of environmental sustainability and the CSR of a business school. As we are informed, there is no comparable research for business schools involved in RMLE. When coupled with previous findings on institutional processual mechanisms of RMLE, converting students’ values/attitudes into responsible management intentions (Haski-Leventhal et al., 2020), the results of this empirical research could significantly contribute to understanding the synergies and interactions of the three RMLE disciplinary domains and the potential of different RMLE-based interventions in academic business education.

3. Theory and hypotheses development

3.1. Environmental sustainability and CSR of business schools

Based on the previous discussion of the extant literature, we examine the following research questions:
• Is there an empirical relationship between environmental sustainability and the CSR of business schools?
• Is there empirical evidence of RMLE transdisciplinarity, defined either in terms of a synergetic effect of student behaviour in one of ERS dimensions, affecting the outcomes of others, or in terms of different ERS outcomes being linked one to another?
• Is the individual halo effect a better fit for explaining the obtained empirical results, considering the contextual contingencies of the environment in which the study has been conducted?

In this section of the paper, we describe the development of the theoretical framework, addressing these research questions and the resulting hypotheses. The central hypothesis is related to the relationship between environmental sustainability and CSR. The research of those two topics in the corporate sector has been shown to converge since 2003 (Ye et al., 2020), starting with the corporate responsibility for environmental pollution (2005-2009), toward the institutionalization of environmental issues within the CSR (2010-2013) and the recent emphasis on CSR capabilities to solve environmental problems globally. Such a perspective of environmental sustainability and CSR integration should be applied to business schools (Doh & Tashman, 2014; Da Silva Jr. et al., 2019; Filho et al., 2019) if the more comprehensive RMLE framework is accepted.

Making environmental sustainability an integral part of the CSR curricula seems to be the most visible aspect of such integration (Rusinko, 2010). In addition, there is convincing bibliometric evidence that researchers see transdisciplinary learning and courses involving industry and other stakeholders as a necessity in ‘greening’ academic curricula (Menon & Suresh, 2020). Content of the curricula is also becoming increasingly inter/transdisciplinary, as shown by a systematic review of the role of HEIs in sustainable development (Wu & Shen, 2016), especially in business schools, with business ethics/CSR becoming substantial parts of the environmental sustainability curricula (and vice versa).

Although the inter/transdisciplinary integration might not be as visible in all the academic practices or across all of the three ERS disciplinary domains of RMLE, there seem to be strong links among relevant academic practices. However, some might need to be uncovered by future research. In this paper, we focus on the relationship between the environmental sustainability and CSR of business schools and follow Zaikauskaite et al. (2020), who linked moral idealism with pro-social and pro-environmental outcomes. Therefore, we hypothesize:

_Hypothesis H1._ Students perceive a direct relationship between the institutional environmental sustainability and the corporate social responsibility (CSR) of a business school.

3.2. Potential transdisciplinary effects between environmental sustainability and CSR

As per our literature review, there should be a high level of transdisciplinarity among the ERS disciplinary domains of the RMLE framework. The RMLE processual
mechanisms might work through the direct influence of RMLE activities to integrative CSR behavioral intentions, considering the relationship among behavioural purposes and future behaviour (Webb & Sheeran, 2006), as well as limitations in determining the future behaviour of current business school students (Cooper-Thomas & Anderson, 2006). An indirect effect, based on serial mediation, involves personal values and integrative CSR attitudes (Haski-Leventhal et al., 2020). Transdisciplinarity implies the existence of separate mechanisms in each of the ERS disciplinary domains, with the synergetic effects involving the cross-domain interactions supporting students’ pro-environmental, pro-social and ethical behavioural intentions (or behaviors).

Literature focusing on the environmental domain also supports addressing the student characteristics by using the different pedagogies and learning processes to create individual environmental awareness and, ultimately, pro-environmental behaviour on the individual level (Viegas et al., 2016). Pro-environmental personal transformations, supported by experiential and transformative learning, lead to change at the institutional level (Moore, 2005; Sipos et al., 2008; Viegas et al., 2016). Since the values – attitudes – behavioural intentions/behaviour processual mechanism has been well explained (Haski-Leventhal et al., 2020), we chose to utilize a similar mechanism from classical psychological research, involving student moral philosophy, based on the Ethics Position Theory/Questionnaire (Forsyth, 1980). The extant research confirms the moral philosophy as a robust predictor of individual pro-social choices and behaviours (Forsyth, 1992; Forsyth & Nye, 1990). A recent study (Zaikauskaite et al., 2020) extended such a conclusion to the environmental domain, showing that moral philosophies also predict environmental behaviours.

The transdisciplinary logic of RMLE implies that the processual mechanism involving moral philosophy, pro-environmental student behaviour, and the institutional environmental sustainability of a business school should result in synergetic effects, enhancing the institutional involvement in the other two ERS dimensions. Therefore, we hypothesize that the RMLE-implied internal processual mechanism work, in terms of building upon relevant students’ characteristics, via their pro-environmental behaviour, all the way to being institutionalized in a business school environment, within a single ERS topical domain (Hypothesis H2) and, after that, synergistically influence other ERS topical domains (Hypothesis H3):

**Hypothesis H2.** Students’ moral philosophy influences the level of environmental sustainability involvement of a business school, mediated by students’ pro-environmental behaviour.

**Hypothesis H3.** There are synergetic effects, both on the individual (student) and institutional levels, involving the cross-dimensional influence of the moral philosophy, pro-environmental student behaviour, and institutional environmental involvement to the CSR involvement of a business school.

Based on the results of the empirical analysis of the proposed hypotheses, the discussion section of the paper (Section 6) provides an assessment of whether the halo effect should be adopted as a potentially better explanation of the obtained empirical results.
4. Methods

This study has been conducted on a population of undergraduate students of business from the South East European region, enrolled in public regional business schools based at the University of Split (Croatia) and University of Banja Luka (Bosnia & Herzegovina). We used Microsoft Excel to randomly select the sample of 500 students (250 per school) from the school records. Participants were informed of the purpose of the study and guaranteed anonymity. Out of 500 invited students, 366 (115 from Faculty of Economics Banja Luka and 251 from Faculty of Economics, Business and Tourism Split) filled in the self-administered anonymous Web survey. After detecting and removing the unusual influence observations, the obtained final sample size of respondents has been reduced to 338, representing the return rate of 67.6%.

The research instrument consisted of several sections, measuring students’ moral philosophy and pro-environmental behaviour and their assessments of the business school institutional commitment to environmental sustainability and CSR. Moral philosophy, i.e., students’ idealism vs. relativism, was measured by using the well-established Ethics Position Questionnaire (EPQ) instrument (Forsyth, 1980). Pro-environmental behaviour has been measured by thirteen items, modified from the examples of pro-environmental behaviour, introduced by Sahin et al. (2012).

Institutional commitment to environmental sustainability is based on five items, conceptually described by Clugston and Calder (1999), as dimensions of institutional commitment to environmental sustainability. Items representing an institutional commitment to CSR were constructed by authors based on dimensions derived from Clugston and Calder (1999). Since this scale has not been previously verified by empirical research, we checked its validity using the conventional Cronbach alpha measure of internal consistency. Its value of 0.788 indicates an acceptable measurement scale (cf. Taber, 2018).

On the survey Web page, the researchers’ e-mail addresses and other contact details were published to make it possible to obtain feedback and receive potential questions from respondents. Aside from several inquiries related to the technical difficulties, no feedback indicated any issues with the research instrument or the survey procedure. In addition, researchers made an additional effort to organize in-class presentation(s) and feedback session(s) with the student population at both schools during the survey process.

We use structural equation modeling to test the proposed hypotheses, based on the partial least squares method (PLS-SEM) (Henseler et al., 2015; Richter et al., 2015; Sarstedt et al., 2018). Application of PLS-SEM technique over widely used multiple regression analysis and covariance-based SEM is preferred due to the interdependence of latent constructs (Hair et al., 2014) and less rigorous conditions of restrictive assumptions, which often qualify PLS-SEM as a distribution-free approach (Astrachan et al., 2014; Hair et al., 2017). PLS-SEM allows researchers to predict and explain the variance of the critical endogenous constructs and contribute to further developing emerging theories (Hair et al., 2018; Sarstedt et al., 2018), unlike covariance-based SEM. The latter is appropriate when the research aims to fit the observed and expected covariances (Hair et al., 2012), making it more suitable for confirming and advancing already established theories.
The obtained sample is considered adequate for the PLS-SEM method. According to the sample size rule of the thumb, the sample should have ten times more observations than there are relationships of a latent construct in the measurement or the structural model (Bagozzi & Yi, 2012; Chin, 2010; Chin et al., 2003; Hair et al., 2018). More accurate determination of the minimum sample size is obtained by statistic power analysis, performed in G*Power 3.1.9.2, using a maximum of two predictors of an endogenous construct in the proposed structural model, indicating minimum sample size is 55 observations to achieve 80% statistical power, with probability error of 5%, to detect at least values of 0.25 of $R^2$. Kurtosis and skewness values as indicators of data normality are in range ±2, suggesting that is no severe violation of the data normality requirement (Gravetter & Wallnau, 2012). Additionally, PLS-SEM imposes no rigorous data normality distribution (Astrachan et al., 2014).

5. Empirical findings

PLS-SEM analysis represents a two-stage process, including measurement model and structural model evaluation, that is performed according to previously established evaluation criteria (Chin, 1998; Götz et al., 2010; Hair et al., 2017; Henseler et al., 2009; Roldán & Sánchez-Franco, 2012; Sarstedt et al., 2014; Tenenhaus et al., 2005). After internal consistency and discriminant validity assessment of the reflective measurement models of latent constructs in the first stage, evaluation of the intensity and significance of the paths using resampling technique bootstrapping (Henseler et al., 2009) with the number of 5000 bootstrap samples and no sign change option, two-tailed t-test, at 5% and 10% significance level and using bias-corrected and accelerated (BCa) bootstrap intervals (Aguirre-Urreta & Rönkkö, 2018) is performed. PLS-SEM analysis was conducted using the SmartPLS software package, version 3.2.9 (Ringle et al., 2015).

5.1. Construct measurement, internal consistency, reliability, and validity

Before conducting structural model evaluation, it is essential to examine the fulfillment of criteria for reflective measurement models (Hair et al., 2018; Sarstedt et al., 2014). Results of internal consistency analysis, convergent validity, and discriminant validity investigation are presented in Table 1.

Internal consistency analysis is performed to determine indicators’ and constructs’ validity. Items with loadings below 0.4 are automatically excluded from the measurement models (Hair et al., 2017; Hulland, 1999). The decision to obtain the rest of the constructs’ items is made while examining the constructs’ convergent validity. Retained items in constructs’ measurement models have high loads (0.572-0.842) on the associated latent construct. Cronbach’s $\alpha$ and composite reliability ($\rho_c$) as indicators of internal consistency (Churchill, 1979; Jöreskog, 1971) are calculated. These values are above the recommended threshold of 0.7 (Hair et al., 2017), indicating that constructs’ internal consistency is established. The average variance extracted (AVE) as an indicator of the construct’s convergent validity (Sarstedt et al., 2018) is calculated. All AVE values (0.501-0.542) are above the threshold proposed in the literature.
Discriminant validity is tested using heterotrait-monotrait criterion (HTMT) (Hair et al., 2017), regarded as a more sensitive technique for detecting discriminant validity issues as opposed to widely used Fornell-Larcker criterion (Fornell & Larcker, 1981) and cross-loadings of items (Chin, 1998). In this study, all obtained HTMT values are clearly below the conservative HTMT threshold of 0.85 (Kline, 2011), indicating a lack of constructs’ discriminant validity problems.

5.2. Path coefficients and predictive relevance

After analysing the reflective measurement model evaluation criteria, the inner (structural) model assessment is conducted. The first criterion of the inner model assessment addresses the multicollinearity issue using variance inflation factor (VAF) as an indicator. All VAF values are below the acceptable threshold of 3 (Hair et al., 2018), ranging from 1.004 to 1.180, indicating minimal collinearity in the inner model. To determine the predictive relevance of the structural model coefficient of determination ($R^2$) that represents the model’s measure of in-sample predictive accuracy (Rigdon, 2012; Sarstedt et al., 2014). The evaluated inner model is presented in Figure 1.

As shown by Figure 1, in the proposed structural model, business school environmental involvement and pro-environmental behaviour explain 49.7% of business school CSR involvement variance. The $R^2$ value of the business school CSR involvement construct can be regarded as moderate (Hair et al., 2011; Henseler et al., 2009). Endogenous constructs of pro-environmental behaviour and business school environmental involvement have low $R^2$ values — 0.152 and 0.017, respectively, indicating weak predictive relevance of the model.
The size and significance of the direct and total effects, which will be used to evaluate the research hypotheses, are presented in Table 2.

Following Hair et al. (2017), the significance levels at 5% and 10% of the direct and total effect are calculated using bootstrapping technique providing corresponding p-values and appropriate BCa 95% and 90% confidence intervals. At the significance level of 5%, business school environmental involvement directly affects business school CSR involvement (0.667), supporting Hypothesis H1.

There are similar direct effects of business school environmental involvement (0.264) and idealism (0.250) on pro-environmental behaviour at the significance level of 5%, which is not expected from the theoretical viewpoint. There seems to be a ‘virtuous circle’ in place for the idealistic individuals, whose idealism drives pro-environmental behaviour directly and indirectly by using the business school environmental involvement as a mediator. This will be further discussed in the following section of the paper.

Analysis of mediation in the structural model shows that the expected path, consisting of the moral philosophy (idealism) – pro-environmental behaviour – business school environmental involvement does not exist. This finding does not support Hypothesis H2, on the functioning of the internal processual mechanisms in the sustainability RMLE domain, according to the theoretical expectations.

At the significance level of 5%, idealism has a significant total effect on business school CSR involvement (0.140) through the institutional path, i.e. the business school environmental involvement mediator. The individual path, consisting of the moral philosophy (idealism) – pro-environmental behaviour – business school CSR
involvement, is not supported by the results of the empirical research. Thus, Hypothesis H3 is supported only partially. The expected effects at the institutional level are present via the significant influence of moral idealism on CSR institutional involvement, mediated by the environmental involvement. On the other hand, the expected path at the student/individual level (consisting of moral idealism, pro-environmental behavior, and CSR institutional involvement) cannot be empirically confirmed.

6. Discussion

Our empirical results confirm that institutional environmental sustainability directly affects institutional CSR in business schools (Hypothesis H1), which opens the issue of explaining the nature of such a relationship. The potential transdisciplinary effects among RMLE domains can be analysed by examining how a business school’s environmental sustainability is reflected in the CSR domain (Hypothesis H3). We found a

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### Table 2. Direct and total effects, bootstrapping confidence intervals, and model’s predictive accuracy.

#### Direct effects and bootstrapping results

| Path | Direct effects | p values | LB | UB | LB | UB |
|------|---------------|----------|----|----|----|----|
| HEI ENV INV -> HEI CSR INV | 0.667 | 0.000** | 0.588 | 0.740 | 0.597 | 0.726 |
| HEI ENV INV -> PROENVBEH | 0.264 | 0.000** | 0.138 | 0.371 | 0.157 | 0.354 |
| ID -> HEI CSR INV | 0.059 | 0.152 | -0.021 | 0.142 | -0.006 | 0.130 |
| ID -> HEI ENV INV | 0.096 | 0.048* | -0.005 | 0.186 | 0.012 | 0.169 |
| ID -> PROENVBEH | 0.250 | 0.000** | 0.123 | 0.355 | 0.150 | 0.336 |
| RL -> HEI CSR INV | 0.071 | 0.168 | -0.040 | 0.167 | -0.016 | 0.153 |
| RL -> HEI ENV INV | 0.082 | 0.324 | -0.166 | 0.192 | -0.133 | 0.173 |
| RL -> PROENVBEH | -0.131 | 0.052 | -0.237 | 0.034 | -0.222 | 0.011 |
| PROENVBEH -> HEI CSR INV | 0.059 | 0.171 | -0.027 | 0.142 | -0.012 | 0.125 |

#### Total effects and bootstrapping results

| Path | Total effects | p values | LB | UB | LB | UB |
|------|---------------|----------|----|----|----|----|
| HEI ENV INV -> HEI CSR INV | 0.683 | 0.000** | 0.603 | 0.748 | 0.616 | 0.737 |
| HEI ENV INV -> PROENVBEH | 0.264 | 0.000** | 0.138 | 0.371 | 0.157 | 0.354 |
| ID -> HEI CSR INV | 0.140 | 0.009** | 0.026 | 0.239 | 0.048 | 0.224 |
| ID -> HEI ENV INV | 0.096 | 0.048* | -0.005 | 0.186 | 0.012 | 0.169 |
| ID -> PROENVBEH | 0.275 | 0.000** | 0.149 | 0.381 | 0.173 | 0.361 |
| RL -> HEI CSR INV | 0.119 | 0.147 | -0.159 | 0.219 | -0.113 | 0.204 |
| RL -> HEI ENV INV | 0.082 | 0.324 | -0.166 | 0.192 | -0.133 | 0.173 |
| RL -> PROENVBEH | -0.109 | 0.139 | -0.231 | 0.057 | -0.211 | 0.040 |
| PROENVBEH -> HEI CSR INV | 0.059 | 0.171 | -0.027 | 0.142 | -0.012 | 0.125 |

#### Variance explained

| Endogenous constructs | PROENVBEH | HEI ENV INV | HEI CSR INV |
|-----------------------|-----------|-------------|-------------|
| R²                    | 0.152     | 0.017       | 0.497       |
| adj. R²               | 0.145     | 0.011       | 0.491       |

Note: LB- lower bound; UB- upper bound; significance assessment of effects (p-values) is determined using the biased corrected and accelerated (BCa)(two-tailed) confidence intervals derived from the bootstrapping procedure with 5,000 samples, two-tailed test, no ign change - **p < 0.05; *p < 0.10.

Source: Research results.
significant and positive influence of idealism on business school CSR, mediated by the institutional sustainability involvement. Empirical verification of such a mechanism, to which we refer to the institutional level, seems to be consistent with the notion of ERS transdisciplinarity. Idealistic individuals could be pushing business schools to achieve sustainability, which further strengthens the general CSR orientation of the school by an implied transdisciplinary effect. The processual mechanism, to which we refer as the one at the individual (student) level, should lead the idealistic students to develop pro-environmental behaviours. If consistent RMLE is in place, it could be expected that such behaviours are institutionalized in the sustainability domain by using academic teaching and learning and other sustainability initiatives (Hypothesis H2).

However, our findings show that idealism seems to shape both the individual behaviour and the institutionalized sustainability involvement of a business school, which could be described as a ‘virtuous circle.’ This finding could be explained by the idealistic individuals or informal groups of business school stakeholders, filling in the institutional voids, often found in the business school environment in South East Europe, as justified by the literature on other types of institutional voids in developing economies and societies (see, e.g., Puffer et al., 2016). The lack of institutional support can be filled by a range of actors, such as informal regional institutions (Onuklu et al., 2021) or social groups, including families (Manolova et al., 2019). In the specific context of CSR, institutional voids lead to the development of specific adaptive mechanisms (Amaeshi et al., 2016), which could be in place here, as well.

Therefore, if individuals are filling in for the system deficiencies, it makes sense that individual idealism might drive the institutional involvement of a business school and, as such, shape student behaviour, both directly and indirectly. Lack of interaction between moral relativism and other constructs, related both to environmental sustainability and social responsibility, could be theoretically expected, based on the results of Zaikauskaite et al. (2020). To verify the generalizability of this finding and its proposed explanation, further research is needed, both by involving additional business school actors (administrators, staff) and stakeholders, as well as replicating such studies in all three ERS disciplinary domains.

Transdisciplinary and synergetic relationships between ERS domains of RMLE should positively affect responsible student behaviour from one to another domain, which is why we initially expected to see the indirect effect of idealism to institutionalized CSR via pro-environmental behaviour (Hypothesis H3). Since this processual mechanism has not been empirically identified within a single (sustainability) domain, it might not be realistic to expect synergetic effects among different ERS domains.

This leads to a potential alternative explanation of the confirmed ‘institutional path,’ leading from idealism to CSR. It could be, also, caused by a simple psychological effect, affecting idealistic individuals, i.e., the ‘angel halo effect,’ which we could refer to as the ‘ERS halo effect.’ Theoretically, it can be shaped as the CSR halo effect, previously described in research of profit sector consumers, with the potential bias of idealistic business school actors and stakeholders, influencing the assessment of different RMLE domains. When business school students/stakeholders see a high level of environmental sustainability, they could assess other ERS domains as very successful. However, this needs to be confirmed by future research.
7. Conclusions and research limitations

In this paper, we consider two potential explanations of the relationship between environmental sustainability and CSR of business schools. One can be found in the responsible management education framework, implying a high level of transdisciplinarity among the (corporate) social responsibility, environmental sustainability, and business ethics. Our empirical analysis shows limited evidence for such an explanation on a student sample from South East Europe, which leads us to propose the existence of the halo effect, similar to the CSR halo effect in the corporate sector.

This proposition needs to be verified by future research and conducted in various cultural and institutional business school environments. We have used the culturally homogenous student sample from two public, regional business schools in Croatia and Bosnia & Herzegovina. These are the principal limitations of the study, preventing us from reaching further generalizations. In addition, future studies will benefit from an additional procedure, ensuring students' understanding of the concepts and items, as used in the research instrument. Before the primary data collection, this could be done by a preliminary qualitative testing of a research instrument, involving a focus group of students (or other stakeholders). Including other business school stakeholders would also provide a more diverse set of views on ethics, CSR, and natural sustainability issues.

Future research should also focus on the additional perspectives within the responsible management education framework to verify their proposed relationships, as well as the potential alternative theoretical explanations.

Disclosure statement

No potential conflict of interest was reported by the authors.

Ethical statement

This study is based on the anonymized and non-identifiable data, obtained from Web-based student questionnaires. It has been approved by the Ethics committee of the Faculty of Economics, Business and Tourism Split (no approval number provided), as a part of the project, entitled “Stavovi i znanja studenata o okolišnoj održivosti” (“Student attitudes and knowledge of environmental sustainability”).

The data collection was based on an online questionnaire, with an URL (link) to the questionnaire, being sent to participants (students) by e-mail. The participation was entirely voluntary and anonymous - there was no technical opportunity to identify the individual response and link it to the respondent's identity. Private data, which could lead to the identification of a respondent, such as e-mail addresses, or IP addresses, were not collected. Answer to demographic data, which were asked from the participants, included their gender, age, study program (previous education) and average study grade, were optional. The first page of the survey included the written statement of the data collection policy, management of demographic data and the guarantee of anonymity and the cumulative (statistical) reporting of research results. Participants, agreeing to such a policy, were allowed to fill in the on-line survey, while the participants, who did not agree, were not granted access to the on-line survey.
References

Aguirre-Urreta, M. I., & Rönkkö, M. (2018). Statistical inference with PLSc using bootstrap confidence intervals. *MIS Quarterly, 42*(3), 1001–1020. https://doi.org/10.25300/MISQ/2018/13587

Alsop, R. J. (2006). Business ethics education in business schools: A commentary. *Journal of Management Education, 30*(1), 11–14. https://doi.org/10.1177/1052562905280834

Amaeshi, K., Adegbite, E., & Rajwani, T. (2016). Corporate social responsibility in challenging and non-enabling institutional contexts: Do institutional voids matter? *Journal of Business Ethics, 134*(1), 135–153. https://doi.org/10.1007/s10551-014-2420-4

An, Y., Cheng, L., Jin, Z., & Zheng, X. (2019). Reporting of sustainability initiatives by NZ and HK universities: A comparative analysis. *Transformations in Business & Economics, 18*(3C), 500–511.

Annan-Diab, F., & Molinari, C. (2017). Interdisciplinarity: Practical approach to advancing education for sustainability and for the Sustainable Development Goals. *The International Journal of Management Education, 15*(2), 73–83. https://doi.org/10.1016/j.ijme.2017.03.006

Astrachan, C. B., Patel, V. K., & Wanzenried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy, 5*(1), 116–128. https://doi.org/10.1016/j.jfbs.2013.12.002

Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science, 40*(1), 8–34. https://doi.org/10.1007/s11747-011-0278-x

Beckmann, M., Schaltegger, S., & Landrum, N. E. (2020). Sustainability management from a responsible management perspective. In O. Laasch, R. Suddaby, R. E. Freeman & D. Jamali (Eds.), *Research Handbook of Responsible Management* (pp. 122–137). Edward Elgar Publishing.

Beringer, A., & Adomßent, M. (2008). Sustainable university research and development: Inspecting sustainability in higher education research. *Environmental Education Research, 14*(6), 607–623. https://doi.org/10.1080/13504620802464866

Bitektine, A. (2011). Toward a theory of social judgments of organizations: The case of legitimacy, reputation, and status. *Academy of Management Review, 36*(1), 151–179. https://doi.org/10.5465/amr.2009.0382

Cheeseman, A., Sharon Wright, T., Murray, J., & McKenzie, M. (2019). Taking stock of sustainability in higher education: A review of the policy literature. *Environmental Education Research, 25*(12), 1697–1712. https://doi.org/10.1080/13504620.2019.1616164

Chernev, A., & Blair, S. (2021). When sustainability is not a liability: The halo effect of marketplace morality. *Journal of Consumer Psychology, 31*(3), 551–569. https://doi.org/10.1002/jcpy.1195

Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates Publishers.

Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655–690). Springer.

Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research, 14*(2), 189–217. https://doi.org/10.1287/isre.14.2.189.16018
Cho, S., & Kim, Y. C. (2012). Corporate social responsibility (CSR) as a halo effect in issue management: Public response to negative news about pro-social local private companies. *Asian Journal of Communication*, 22(4), 372–385. https://doi.org/10.1080/01292986.2012.681666

Churchill, G. A. Jr (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73. https://doi.org/10.1177/002224377901600110

Clugston, R. M., & Calder, W. (1999). Critical dimensions of sustainability in higher education. In W. L. Filho (Ed.), *Sustainability and university life* (pp. 31–46). Peter Lang Publishing.

Coombs, W. T., & Holladay, S. J. (2006). Unpacking the halo effect: Reputation and crisis management. *Journal of Communication Management*, 10(2), 123–137. https://doi.org/10.1108/13632540610664698

Cooper-Thomas, H. D., & Anderson, N. (2006). Organizational socialization: A new theoretical model and recommendations for future research and HRM practices in organizations. *Journal of Managerial Psychology*, 21(5), 492–516. https://doi.org/10.1108/02683940610673997

Crane, A. (1999). Are You Ethical? Please Tick Yes or No On Researching Ethics in Business Organizations. *Journal of Business Ethics*, 20(3), 237–248. https://doi.org/10.1023/A:1005817414241

Cullen, J. G. (2020). Varieties of responsible management learning: A review, typology and research agenda. *Journal of Business Ethics*, 162(4), 759–773. https://doi.org/10.1007/s10551-019-04362-x

Da Silva, A., Jr., Oliveira Martins-Silva, P., Araújo Vasconcelos, K. C., Silva, V. C., Brito, S. L. M. S., & Monteiro, J. M. R. (2019). Sustainability and corporate social responsibility in the opinion of undergraduate students in management programs: Between the concrete and the abstract. *Journal of Cleaner Production*, 207, 600–617. https://doi.org/10.1016/j.jclepro.2018.10.011

Dion, K., Berscheid, E., & Walster, E. (1972). What is beautiful is good. *Journal of Personality and Social Psychology*, 24(3), 285–290.

Doh, J. P., & Tashman, P. (2014). Half a world away: The integration and assimilation of corporate social responsibility, sustainability, and sustainable development in business school curricula. *Corporate Social Responsibility and Environmental Management*, 21(3), 131–142. https://doi.org/10.1002/csr.1315

Fam, D., Neuhauser, L., & Gibbs, P. (Eds.). (2018). *Transdisciplinary theory, practice and education*. Springer.

Filho, W. L., Doni, F., Vargas, V. R., Wall, T., Hindley, A., Rayman-Bacchus, L., Emblen-Perry, K., Boddy, J., & Avila, L. V. (2019). The integration of social responsibility and sustainability in practice: Exploring attitudes and practices in Higher Education Institutions. *Journal of Cleaner Production*, 220, 152–166. https://doi.org/10.1016/j.jclepro.2019.02.139

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. https://doi.org/10.1177/002224378101800313

Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, 39(1), 175–184. https://doi.org/10.1037/0022-3514.39.1.175

Forsyth, D. R. (1992). Judging the morality of business practices: The influence of personal moral philosophies. *Journal of Business Ethics*, 11(5–6), 461–470. https://doi.org/10.1007/BF00870557

Forsyth, D. R., & Nye, J. L. (1990). Personal moral philosophies and moral choice. *Journal of Research in Personality*, 24(4), 398–414. https://doi.org/10.1016/0092-6566(90)90030-A

Götz, O., Liehr-Gobbers, K., & Krafft, M. (2010). Evaluation of structural equation models using the partial least squares (PLS) approach. In V. E. Vinzi, W. W. Chin, J. Henseler, & H Wang (Eds.), *Handbook of partial least squares: Concepts, methods and applications* (Springer Handbooks of Computational Statistics Series: Vol. II (pp. 691–711). Springer.

Gravetter, F., & Wallnau, L. (2012). *Statistics for behavioral sciences*. Wadsworth Cengage Learning.
Gröschl, S., & Pavie, X. (2020). Transdisciplinarity applied to management education: A case study. *Journal of Education for Business, 95*(7), 451–457. https://doi.org/10.1080/08832323.2019.1671781

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A primer on partial least squares structural equation modeling (PLS-SEM) (2nd ed.). Sage Publications.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice, 19*(2), 139–151. https://doi.org/10.2753/MTP1069-6679190202

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2012). Partial least squares: The better approach to structural equation modeling? *Long Range Planning, 45*(5–6), 312–319. https://doi.org/10.1016/j.lrp.2012.09.011

Hair, J., Sarstedt, M., Hopkins, L., & Kuppelwieser, G. V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review, 26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2018). Advanced issues in partial least squares structural equation modeling (PLS-SEM). Sage Publications.

Haski-Leventhal, D., Pournader, M., & Leigh, J. S. (2020). Responsible Management Education as Socialization: Business Students’ Values, Attitudes and Intentions. *Journal of Business Ethics, 176*(1), 17–35. https://doi.org/10.1007/s10551-020-04593-3

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in international marketing* (Vol. 20, pp. 277–320). Emerald.

Hong, H., & Liskovich, I. (2015). Crime, punishment and the halo effect of corporate social responsibility. Working Paper 21215. National Bureau of Economic Research. https://doi.org/10.3386/w21215

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(2), 195–204. https://doi.org/10.1002/(SICI)1097-0266(199902)20.2

Jahn, T., Bergmann, M., & Keil, F. (2012). Transdisciplinarity: Between mainstreaming and marginalization. *Ecological Economics, 79*, 1–10. https://doi.org/10.1016/j.ecolecon.2012.04.017

Jöreskog, K. G. (1971). Simultaneous factor analysis in several populations. *Psychometrika, 36*(4), 409–426. https://doi.org/10.1007/BF02291366

Kagawa, F. (2007). Dissonance in students’ perceptions of sustainable development and sustainability: Implications for curriculum change. *International Journal of Sustainability in Higher Education, 8*(3), 317–338. https://doi.org/10.1108/14676370710817174

Kajikawa, Y., Ohno, J., Takeda, Y., Matsushima, K., & Komiyama, H. (2007). Creating an academic landscape of sustainability science: An analysis of the citation network. *Sustainability Science, 2*(2), 221–231. https://doi.org/10.1007/s11625-007-0027-8

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). Guilford Press.

Laasch, O., Moosmayer, D., Antonacopoulou, E., & Schaltegger, S. (2020a). Constellations of transdisciplinary practices: A map and research agenda for the responsible management learning field. *Journal of Business Ethics, 162*(4), 735–757. https://doi.org/10.1007/s10551-020-04440-5

Laasch, O., Suddaby, R., Freeman, R. E., & Jamali, D. (2020b). Mapping the emerging field of responsible management: Domains, spheres, themes, and future research. In O. Laasch, R. Suddaby, R. E. Freeman, & D. Jamali (Eds.), *Research handbook of responsible management* (pp. 2–39). Edward Elgar Publishing.
Manolova, T. S., Edelman, L. F., Shirokova, G., & Tsukanova, T. (2019). Youth entrepreneurship in emerging economies: Can family support help navigate institutional voids? *Journal of East-West Business, 25*(4), 363–395. https://doi.org/10.1080/10669868.2019.1624672

McCune, V., Tauritz, R., Boyd, S., Cross, A., Higgins, P., & Scoles, J. (2021). Teaching wicked problems in higher education: Ways of thinking and practising. In *Teaching in Higher Education*, 1–16. https://doi.org/10.1080/13562517.2021.1911986

Menon, S., & Suresh, M. (2020). Synergizing education, research, campus operations, and community engagements towards sustainability in higher education: A literature review. *International Journal of Sustainability in Higher Education, 21*(5), 1015–1051. https://doi.org/10.1108/IJSHE-03-2020-0089

Mitroff, I. I. (2004). An open letter to the deans and the faculties of American business schools. *Journal of Business Ethics, 54*(2), 185–189. https://doi.org/10.1007/s10551-004-9462-y

Moore, J. (2005). Is higher education ready for transformative learning? A question explored in the study of sustainability. *Journal of Transformative Education, 3*(1), 76–91. https://doi.org/10.1177/1541344604270862

Naquin, C. E., & Tynan, R. O. (2003). The team halo effect: Why teams are not blamed for their failures. *The Journal of Applied Psychology, 88*(2), 332–340. https://doi.org/10.1037/0021-9010.88.2.332

Nisbett, R. E., & Wilson, T. D. (1977). The halo effect: Evidence for unconscious alteration of judgments. *Journal of Personality and Social Psychology, 35*(4), 250–256. https://doi.org/10.1037/0022-3514.35.4.250

Norton, B. G. (2005). *Sustainability: A philosophy of adaptive ecosystem management*. University of Chicago Press.

Onuklu, A., Hill, T. T., Darendeli, I. S., & Genc, O. F. (2021). Poison or antidote: How subnational informal institutions exacerbate and ameliorate institutional voids. *Journal of International Management, 27*(1), 100806. https://doi.org/10.1016/j.intman.2020.100806

Park, S., Yang, D., Cha, H., & Pyeon, S. (2020). The halo effect and social evaluation: How organizational status shapes audience perceptions on corporate environmental reputation. *Organization & Environment, 33*(3), 464–482. https://doi.org/10.1177/1086026619858878

Parkes, C., & Blewitt, J. (2011). Ignorance was bliss, now I’m not ignorant and that is far more difficult: Transdisciplinary learning and reflexivity in responsible management education. *Journal of Global Responsibility, 2*(2), 206–221. https://doi.org/10.1108/20412561111166058

Puffer, S. M., McCarthy, D. J., & Jaeger, A. M. (2016). Institution building and institutional voids: Can Poland’s experience inform Russia and Brazil? *International Journal of Emerging Markets, 11*(1), 18–41. https://doi.org/10.1108/IJoEM-02-2015-0027

Richter, N. F., Cepeda, G., Roldán, J. L., & Ringle, C. M. (2015). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal, 33*(1), 1–3. https://doi.org/10.1016/j.emj.2016.08.001

Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. *Long Range Planning, 45*(5–6), 341–358. https://doi.org/10.1016/j.lrp.2012.09.010

Ringle, C. M., Wende, S., & Becker, J. M. (2015). *SmartPLS 3*. SmartPLS GmbH.

Roldán, J. L., & Sánchez-Franco, M. J. (2012). Variance-based structural equation modeling: Guidelines for using partial least squares in information systems research. In M. Mora, A. L. S. O. Gelman, & M. Raisinghani (Eds.), *Research methodologies, innovations and philosophies in software systems engineering and information systems* (pp. 193–221). IGI Global.

Rosenthal, S. B., & Buchholz, R. A. (2000). The empirical-normative split in business ethics: A pragmatic alternative. *Business Ethics Quarterly, 10*(2), 399–408. https://doi.org/10.2307/3857883

Rusinko, C. A. (2010). Integrating sustainability in higher education: A generic matrix. *International Journal of Sustainability in Higher Education, 11*(3), 250–259. https://doi.org/10.1108/14676371011058541

Sahin, E., Ertepinar, H., & Teksoz, G. (2012). University students’ behaviors pertaining to sustainability: A structural equation model with sustainability-related attributes. *International Journal of Environmental and Science Education, 7*(3), 459–478.
Sarstedt, M., Bengart, P., Shaltoni, A. M., & Lehmann, S. (2018). The use of sampling methods in advertising research: A gap between theory and practice. *International Journal of Advertising, 37*(4), 650–663. https://doi.org/10.1080/02650487.2017.1348329

Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy, 5*(1), 105–115. https://doi.org/10.1016/j.jfbs.2014.01.002

Shawe, R., Horan, W., Moles, R., & O’Regan, B. (2019). Mapping of sustainability policies and initiatives in higher education institutes. *Environmental Science & Policy, 99*, 80–88. https://doi.org/10.1016/j.envsci.2019.04.015

Sidiropoulos, E. (2014). Education for sustainability in business education programs: A question of value. *Journal of Cleaner Production, 85*, 472–487. https://doi.org/10.1016/j.jclepro.2013.10.040

Sipos, Y., Battisti, B., & Grimm, K. (2008). Achieving transformative sustainability learning: Engaging head, hands and heart. *International Journal of Sustainability in Higher Education, 9*(1), 68–86. https://doi.org/10.1108/14676370810842193

Smith, N. C., Read, D., & López-Rodríguez, S. (2018). CSR Halo: The gift that keeps on giving? https://doi.org/10.2139/ssrn.3135132

Storey, M., Killian, S., & O’Regan, P. (2017). Responsible management education: Mapping the field in the context of the SDGs. *The International Journal of Management Education, 15*(2), 93–103. https://doi.org/10.1016/j.ijme.2017.02.009

Taber, K. S. (2018). The use of Cronbach’s alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Tenenhaus, M., Esposito Vinzi, V., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis, 48*(1), 159–205. https://doi.org/10.1016/j.csda.2004.03.005

Thorndike, E. L. (1920). The constant error in psychological ratings. *Journal of Applied Psychology, 4*(1), 25–29. https://doi.org/10.1037/h0071663

Van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics, 44*(2), 95–105. https://doi.org/10.1023/A:1023331212247

Viegas, C. V., Bond, A. J., Vaz, C. R., Borchartd, M., Pereira, G. M., Selig, P. M., & Varvakis, G. (2016). Critical attributes of sustainability in higher education: A categorisation from literature review. *Journal of Cleaner Production, 126*, 260–276. https://doi.org/10.1016/j.jclepro.2016.02.106

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin, 132*(2), 249–268. https://doi.org/10.1037/0033-2909.132.2.249

Wu, Y. C. J., & Shen, J. P. (2016). Higher education for sustainable development: A systematic review. *International Journal of Sustainability in Higher Education, 17*(5), 633–651. https://doi.org/10.1108/IJSHE-01-2015-0004

Ye, N., Kueh, T. B., Hou, L., Liu, Y., & Yu, H. (2020). A bibliometric analysis of corporate social responsibility in sustainable development. *Journal of Cleaner Production, 272*, 122679. https://doi.org/10.1016/j.jclepro.2020.122679s
Zaikauskaite, L., Chen, X., & Tsivrikos, D. (2020). The effects of idealism and relativism on the moral judgement of social vs. Environmental issues, and their relation to self-reported proenvironmental behaviours. *PLoS One, 15*(10), e0239707. https://doi.org/10.1371/journal.pone.0239707

| Agree | Neither agree nor disagree | Disagree completely | 1 | 2 | 3 | Disagree | 4 | 5 | 6 | 7 | 8 | Agree completely | 9 |
|-------|----------------------------|---------------------|---|---|---|----------|---|---|---|---|---|-----------------|---|
|       |                            |                     |   |   |   |          |   |   |   |   |   |                 |   |

1. A person should make certain that their actions never intentionally harm another even to a small degree.
2. Risks to another should never be tolerated, irrespective of how small the risks might be.
3. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
4. One should never psychologically or physically harm another person.
5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
6. If an action could harm an innocent other, then it should not be done.
7. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
8. The dignity and welfare of people should be the most important concern in any society.
9. It is never necessary to sacrifice the welfare of others.
10. Moral actions are those which closely match ideals of the most "perfect" action.
11. There are no ethical principles that are so important that they should be a part of any code of ethics.
12. What is ethical varies from one situation and society to another.
13. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
14. Different types of moralities cannot be compared as to "rightness."
15. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
16. Moral standards are simply personal rules which indicate how a person should behave, and are not to be applied in making judgments of others.
17. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
18. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.
19. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
20. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.

Source: Forsyth (1980).
Appendix: Research instrument (questionnaire)

What is your opinion/attitude about how individuals should act in the society?

|   | Disagree completely | 1 | 2 | 3 | Disagree | 4 | Neither agree nor disagree | 5 | Agree | 6 | 7 | 8 | Agree completely |
|---|---------------------|---|---|---|------------|---|---------------------------|---|-------|---|---|---|-----------------|
| 1. | Walked or cycled instead of traveled by car for environmental reasons. |
| 2. | Deliberately purchased food produced locally rather than imported products. |
| 3. | Attended a protest march or a demonstration for environmental reasons. |
| 4. | Purchased products packaged in reusable or recyclable containers. |
| 5. | Avoided buying from a company which shows disregard for the environment. |
| 6. | Picked up litter or trash. |
| 7. | Recycled glass bottles, aluminum cans or paper. |
| 8. | Made an effort to use less water when brushing my teeth or bathing. |
| 9. | Tried to use less energy (e.g. turned off lights when I am the last to leave a room, turned off TV, or a computer, when not used, etc.). |
| 10. | Considered politicians’ positions related to environmental issues when voting or supporting. |
| 11. | Chose to read publications that focus on environmental issues. |
| 12. | Encouraged people involved in a destructive environmental behavior to stop that activity. |
| 13. | Encouraged others to take an action on behalf of the environment. |

Source: Modified from Sahin et al. (2012).
How would you describe your behaviour, in terms of accepting pro-environmental principles?

How much do you agree with the following statements, related to the actions of your higher education institution?

|   | Disagree completely | 1 | 2 | 3 | Disagree | 4 | Neither agree nor disagree | 5 | Agree | 6 | 7 | 8 | Agree completely | 9 |
|---|---------------------|---|---|---|----------|---|--------------------------|---|-------|---|---|---|-----------------|---|
1. The written statements of the mission and purpose of the institution, including the descriptions of learning objectives and public relations materials, express their philosophies and commitments toward environmental sustainability.
2. The written statements of the mission and purpose of the institution, including the descriptions of learning objectives and public relations materials, express their philosophies and commitments toward the Corporate Social Responsibility.
3. Students learn about the institutional values and practices in the context of environmental sustainability and sustainable development.
4. Students learn about the institutional values and practices in the context of Corporate Social Responsibility.
5. Students understand how the campus functions in the ecosystem (e.g. its sources of food, water, energy, endpoint of waste and garbage) and its contribution to a sustainable economy.
6. Students understand how the institution applies the Corporate Social Responsibility in all aspects of its work.
7. There is an outreach, related to environmental sustainability of the institution, toward the internal publics, by using special lectures and events, round-table discussions, student discussions, public announcements, etc.
8. There is an outreach, related to the Corporate Social Responsibility of the institution, toward the internal publics, by using special lectures and events, round-table discussions, student discussions, public announcements, etc.
9. The institution is engaged in outreach and forming partnerships with local and/or national government and/or civic organizations in promotion and development of environmental sustainability.
10. The institution is engaged in outreach and forming partnerships with local and/or national government and/or civic organizations in promotion and development of Corporate Social Responsibility.

Source: Modified from Clugston and Calder (1999).