

## Research article

## How implementing the UN sustainable development goals affects customers' perceptions and loyalty

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## ABSTRACT

When firms work to achieve the UN Sustainable Development Goals (SDGs), they contribute to environmental protection and social and economic welfare. But what are the implications for the firms themselves, particularly in terms of potential improvements to customer–organization relationships? This article seeks to answer that question in depth by investigating the distinct influences of implementing environmental, social, or economic SDGs on consumers' perceptions of the firm's reputation, trust, and user–organization identification, which in turn may affect their loyalty intentions. Survey responses from 210 employees and students of a professional training organization reveal that in this educational context, social and economic SDGs are more relevant than environmental SDGs. Implementing SDGs has positive implications for the organization, in the form of increased user loyalty, which is not a direct effect but rather is fully mediated by trust and user–organization identification. Reputation does not affect loyalty though. In addition, companies' compliance with SDGs should be consistent with their business objectives; SDG-washing is ineffective. This research thus expands scarce empirical knowledge in this emerging field by helping scholars and practitioners understand the unique processes through which achieving SDGs affects users' perceptions and future behaviors.

## 1. Introduction

When leaders of the 193 United Nations (UN) member states agreed to a set of 17 Sustainable Development Goals (SDG) for achieving sustainable economic growth, environmental protection, an end to poverty and inequalities, and improved health and education, it represented an urgent, global call to action for all countries and the firms and consumers functioning within them (United Nations, 2015). Growing societal demand, especially among young generations (Severo et al., 2019), reinforces these calls to action and pushes organizations to address sustainability more actively and visibly, in pursuit of their own SDG achievements to protect the environment and improve societal welfare (Nishitani et al., 2021; Jiang et al., 2022). In turn, prior research considers how company characteristics affect their commitment to SDGs (Rosati and Faria, 2019), their compliance with SDGs or similar sustainability standards (Mio et al., 2020), and the risk of superficial approaches known as “SDG-washing” (Nishitani et al., 2021).

But if companies are to engage in such efforts continually, ultimately, they must benefit from them. Thus far, little research has addressed the impact of implementing SDGs on firm-relevant outcomes. That is,

despite the vastly increased scope and importance of the SDGs at global levels, the potential advantages for companies that pursue these goals have been addressed only theoretically, not empirically (Soon-siripanichkul and Ngamcharoenmongkol, 2019). To address this gap, we undertake an extensive, quantitative survey to test a novel research framework, based in a stimulus–organization–response (SOR) model, that predicts how implementing the SDGs might affect user–organization relationships in terms of the users' perceptions and behavioral intentions. In detail, we use this framework to answer two main research questions: (1) Is the implementation of SDGs advantageous for firms? And (2) what kinds of SDGs should companies pursue to improve users' favorable perceptions and behaviors toward them?

Our purposeful reliance on the SOR model reflects its unique suitability for establishing how external stimuli get subjectively processed by individuals, who then form opinions that guide their behavioral responses (Bagozzi, 1986; Barta et al., 2023). That is, the SOR model is appropriate for analyzing consumer behavior (Wang et al., 2011; Barta et al., 2023) and understanding their responses to firms' corporate social responsibility (CSR) or sustainability efforts (Chang and Jai, 2015; Su et al., 2017; Hameed et al., 2022). Accordingly, we propose that

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implementing SDGs (stimulus) increases users' intentions to remain loyal to the firm (response), mediated by three mental mechanisms (organism): their perceptions of the firm's reputation, trust in the firm, and identification with the firm. Reputation, trust, and user–firm identification represent fundamental links between marketing and consumer behavior in corporate settings (Keh and Xie, 2009), as well as critical behavioral cues for decision-making by students selecting education providers (Heffernan et al., 2018).

This latter point is relevant to our research, which we conduct in the education sector, in which implementing SDGs can have notably powerful effects, due to the direct impact on students and future leaders (González García et al., 2020). In this sense, the education sector represents a multiplier and disseminator of learning and critical thinking about the importance of the SDGs and possibilities for their implementation in organizations (González García et al., 2020; Abad-Segura and González-Zamar, 2021). Furthermore, the service providers in this sector—that is, firms that offer higher education and professional training—compete to attract students as key stakeholders, primary customers, and key users of the educational services they provide (Fleacă et al., 2018; Heffernan et al., 2018; Aledo-Ruiz et al., 2022). To do so, they arguably need to reflect actively on and disseminate information about sustainability challenges by integrating and aligning their educational programs with the SDGs (Shulla et al., 2020; Sinha et al., 2021; Jiang et al., 2022). Yet integrating the SDGs into educational programs appears challenging to many institutions, due to the resource demands (Heras-Saizarbitoria et al., 2022) associated with adding novel social responsibility commitments to their value chains (Fleacă et al., 2018). Even if students derive benefits when education providers implement SDGs, it is unclear if the students recognize or value these benefits. Thus, we purposefully seek to assess whether the efforts and investments required implement the SDGs in the education sector benefit these firms, in terms of improving user–organization relationships.

By undertaking this in-depth assessment in this relevant sector, this study makes four main contributions. First, we explore how implementing SDGs influences user–organization relationships. Noting the universal scope of the SDGs, our empirical study establishes a novel and relevant groundwork for a wide international audience of scholars and practitioners. Second, we distinguish different types of SDGs (environmental, social, and economic) to specify their differential impacts on users' perceptions and behavioral intentions. This distinction can help managers focus on the SDG types that are most relevant to their firm and

its objectives. Third, we closely examine the psychological mechanisms through which users' perceptions lead to increased loyalty toward the organization and thereby identify different roles of company reputation, users' trust, and user–organization identification. Fourth, this study applies research into sustainable development to the global education sector, which has unique importance for spreading the SDGs but where the potential advantages for educational institutions remain unexplored.

The remainder of this article is structured as follows: Section 2 presents a literature review and research framework. In Section 3, we describe the method; Section 4 contains the results of the empirical study. Finally, in Section 5, we discuss the main findings, implications, and research directions.

## 2. Conceptual framework

### 2.1. The sustainable development goals in education

In September 2015, the 2030 Agenda for Sustainable Development was ratified by 193 members of the UN, thus establishing 17 objectives, comprised of 169 goals, to promote a viable social, environmental, and economic future (United Nations, 2015). The Agenda reflects three fundamental axes (Fig. 1): environmental, social, and economic. Achieving the SDGs requires balancing the three axes in a coherent, balanced manner (United Nations, 2015). These axes also provide a global benchmark for sustainable development and a common approach for sustainable development initiatives (Gericke et al., 2019; Nishitani et al., 2021).

Despite the global importance of the SDGs, few studies examine their practical implementation or consequences for organizations. Rather, most research focuses on the characteristics of participating companies (Rosati and Faria, 2019) or their degree of commitment to the SDGs (Nishitani et al., 2021), along with some efforts to compare the SDGs with other international standards (Mio et al., 2020). Some theoretical efforts also predict that implementing SDGs can have positive effects on firms' image or user–organization identification (Soonsiripanchikul and Ngamcharoenmongkol, 2019), without any empirical tests though. In education literature in particular, we find some evidence that implementing the SDGs offers advantages for students, who in turn gain greater capacity to think about sustainability challenges (Shulla et al., 2020). In particular, SDG-based education improves students' learning and skills acquisition in relation to sustainable development (González García et al., 2020) and promotes ethical values and critical thinking



Fig. 1. The three SDG axes.

Source: Own design, based on Rockström (2017).

(Abad-Segura and González-Zamar, 2021), which they are likely to introduce into the organizations they join in the future.

To ensure the effective integration of the SDG framework, beyond merely academic goals (Shulla et al., 2020), education providers need to collaborate with their key stakeholders, including students and staff, to enhance the analysis, understanding, internalization, and implementation of devoted, sustainable activities (González García et al., 2020). In addition to integrating the SDGs into syllabi, the broader educational model should reflect the implementation of the SDGs in organizational activities (Fleacă et al., 2018), for the benefit of student users, staff, local communities, and the overall organization. This level of implementation demands considerable organizational effort (Heras-Saizarbitoria et al., 2022). Therefore, it is critical to predict the likely outcomes for not just student users but also the organization and user–organization relationships.

## 2.2. Stimulus–organism–response model

The conceptual SOR model originated in environmental psychology; it proposes that external, environmental stimuli affect individuals' internal cognitive and affective reactions (Bagozzi, 1986), which influence their behavioral responses (Mehrabian and Russell, 1974). It has been applied widely in consumer behavior research (Wang et al., 2011; Barta et al., 2023), including in efforts to predict responses to firms' CSR actions (Su et al., 2017), sustainability positioning strategies (Chang and Jai, 2015), or green practices (Hameed et al., 2022). For our research setting, we apply the SOR model to consumer behavior as follows (see Fig. 2): The *stimulus* refers to efforts by education providers to meet goals compliant with the SDGs. The *organism* pertains to the cognitive and affective reactions of their users to these efforts, in the form of their perceptions of the firms' reputation, trust, and user–organization identification. Finally, their assessments motivate behavioral *responses* from users, which we gauge by their intentions to remain loyal.

## 2.3. Influence of SDG compliance on users' assessments: reputation, trust, and identification

First, an organization's reputation reflects the overall evaluation that

stakeholders make of it, based on images they form in response to its activities, communications, and symbolic behavior over time (Gotsi and Wilson, 2001). For education providers, reputation is an especially valued, intangible asset that largely determines their competitiveness and positioning (Heffernan et al., 2018). As previous research has established, socially responsible actions can significantly improve a firm's corporate reputation (Martínez and Del Bosque, 2013) and image (Hameed et al., 2022). Furthermore, companies' social and environmental efforts generally are rewarded by consumers (Alvarado, 2008), by increasing their visibility and improving their image (Hameed et al., 2022), whereas a failure to provide social and environmental value can lead to reputational damage (Seifert-Dähnn et al., 2021). The economic dimension of socially responsible actions also directly influences corporate reputation (Alvarado, 2008). The reputation of education providers thus should depend on stakeholders' perceptions of their sustainable development actions (Abad-Segura and González-Zamar, 2021; Aledo-Ruiz et al., 2022), and we accordingly predict.

**H1.** When users perceive that an organization fulfills the (a) social, (b) environmental, and (c) economic SDGs, they believe it has a better reputation.

Second, trust arises when parties to an exchange relationship believe in the reliability and integrity of their counterpart (Morgan and Hunt, 1994). Companies that engage in socially responsible actions can evoke more stakeholder trust, because they fulfill their societal promises and deliver relevant results (Aaker, 1996; Maignan et al., 1999). In this sense, trust represents one of the most immediate consequences of companies' positive social performance (Martínez and Del Bosque, 2013). Previous studies also suggest that people put more trust in companies that display a true commitment to society and the environment (Swaen and Chumpitaz, 2008; Seifert-Dähnn et al., 2021) and consider economic dimensions of their sustainable actions (Ammar et al., 2015). Therefore, we further propose.

**H2.** When users perceive that an organization fulfills the (a) social, (b) environmental, and (c) economic SDGs, they trust it more.

Third, identification implies a feeling of connectedness or belonging to a group, based on shared beliefs and objectives and direct or indirect experience of its accomplishments and misfortunes (Belanche et al.,

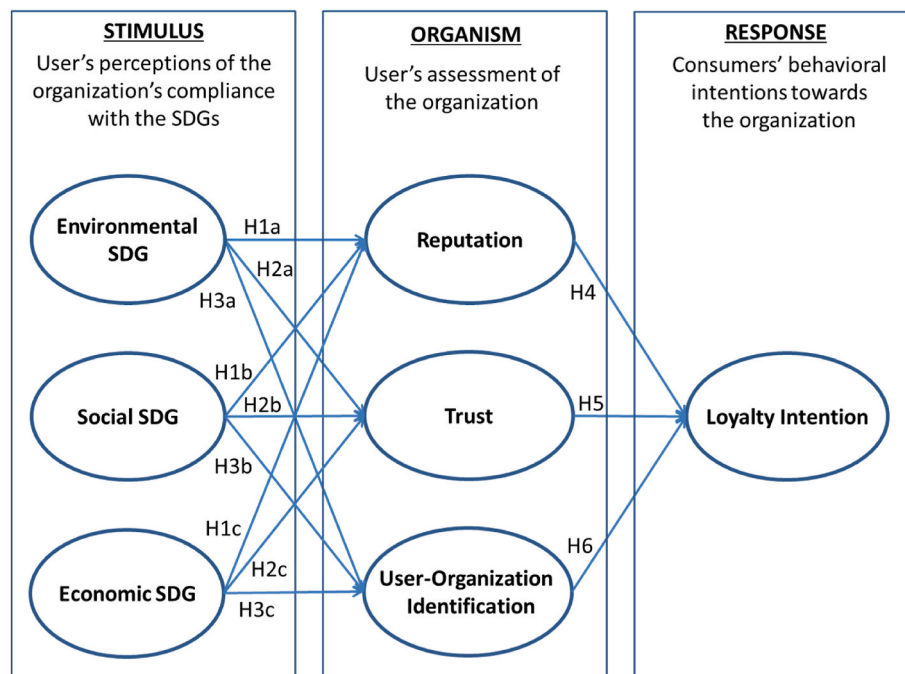


Fig. 2. Research framework.

2014). In an organizational setting, the customer or user might identify to greater or lesser degrees with the organization as a group (Bhattacharya and Sen, 2003; Heffernan et al., 2018). Thus, identification constitutes a process, through which the organization's and individual's aims and values progressively become integrated and consistent (Hall and Lawler, 1970). For example, if users believe an organization is altruistically motivated and contributes to sustainable development, they likely want to identify with it, as exhibited by their attitudes and behaviors (Loureiro et al., 2012). When people sense that organizations engage in socially responsible activities, they often identify with their brands and products (Bhattacharya and Sen, 2003); this tendency appears particularly relevant in the education sector, where previous research identifies influences of all three axes (social, environmental, and economic) on student users' connections with their educational institutions (Aledo-Ruiz et al., 2022). Thus, we posit.

**H3.** When users perceive that an organization fulfills the (a) social, (b) environmental, and (c) economic SDGs, they express greater identification with it.

#### 2.4. Influences of assessments on loyalty intentions

Broadly, customer loyalty refers to a pro-company behavior, repeated over time, that requires some participation and psychological engagement with the organization (Schouten and McAlexander, 1995). In some cases, loyalty is a direct response to perceived CSR (Martínez and Del Bosque, 2013), though in other situations, CSR policies affect loyalty indirectly, through mediating variables that reflect consumers' assessments of the organization (Raza et al., 2020), such as beliefs about their reputations (Alvarado, 2008). In previous research, companies' reputations improve consumers' opinions of brands and behavioral intentions in response to sustainability efforts (Alvarado, 2008; Hameed et al., 2022). The reputation of educational institutions also influences users' supportive behavioral intentions and loyalty (Heffernan et al., 2018). Integrating these streams of research, we predict.

**H4.** Organizations' favorable reputations have positive effects on users' loyalty.

Trust also should inform loyalty intentions, because a trust-based relationship implies that the parties have agreed to a course of action and behave accordingly (Moorman et al., 1992). In trusting relationships, organizations and users share values, work together, and create mutual value and loyalty (Raza et al., 2020). Considering that trust represents one of the most important influences on consumers (Oney et al., 2017), if users trust organizations, they are more likely to be loyal (Keh and Xie, 2009). Similarly, students' trust in their educational institution increases their engagement and confidence about selecting and enrolling in programs, which results in increased loyalty too (Heffernan et al., 2018). Formally.

**H5.** Trust in organizations has a positive effect on users' loyalty.

Finally, consumers identify with companies and their brands, in ways that affect their company-related behaviors (Loureiro et al., 2012). User-company identification implies a cognitive connection and sense of closeness that also informs users' perceptions and subsequent behaviors (Marin and Ruiz, 2007). In particular, people seek to fulfill their self-definition and social identity needs by entering into connections with organizations that offer valuable images, such as those that maintain sustainability-oriented programs, such that socially responsible organizations tend to enjoy stronger connections with clients (Aaker, 1996; Maignan et al., 1999). Such connections increase the chances of users' loyal behaviors (Keh and Xie, 2009; Martínez and Del Bosque, 2013). Student users' identification with educational institutions also is critical to their loyalty (Heffernan et al., 2018). Therefore.

**H6.** Users' identification with the organization has positive effects on their loyalty.

### 3. Methodology

We undertook a quantitative data collection using surveys of employees and students (i.e., key stakeholders) of a private vocational training center, located in one of the most populous cities in Spain. These voluntary participants received a written description of the 17 SDGs in the UN 2030 Agenda, and the center itself engages in various SDG-related activities, in addition to offering training courses designed to provide both general skills (e.g., digital, care services) and capabilities specific to the needs of local businesses. The overall purpose of the education provider is to enhance the knowledge and skills of trainees to facilitate their entry into the local and regional labor markets.

In terms of its SDG-related efforts, the organization sought to reduce its water usage and achieve better management of its waste disposal processes (environmental axis), including specific campaigns to address responsible disposal of plastics. In addition, the organization undertook various initiatives to contribute to poverty and hunger eradication and combat inequalities (social axis), including food collection campaigns and efforts to address gender-based violence. Finally, on the economic axis, and in line with its essential purpose, this educational firm consistently works to improve students' employability and increase their access to labor markets (e.g., jobs board displaying a range of job vacancies, economic incentives for internships in other countries).

In soliciting responses, we guaranteed participants' complete anonymity and obtained a final sample of 210 valid responses, after excluding incomplete surveys. The sample comprised 57.62% women and 42.38% men. The largest age group (44.29%) were between 16 and 20 years of age, followed by 31.90% between 21 and 25 years, 8.10% between 26 and 30 years, 7.14% between 31 and 40 years, 4.76% between 41 and 50 years, and 3.81% older than 50 years of age. This sample distribution effectively represents the overall pool of organizational stakeholders.

The measurement scales in the survey we provided these respondents were adapted from previous studies, following an in-depth literature review to ensure content validity. The items all use 7-point Likert scales; we detail their sources in the Appendix. To test for face validity, we used a variation of Zaichkowsky's (1985) method and asked a panel of eight management, marketing, and sociology professionals to classify each item as "not representative," "somewhat representative," or "clearly representative" of the related concept. We retained only items that produced a high level of consensus. Furthermore, we conducted a G\*Power analysis to confirm if the sample was sufficiently large (Mayr et al., 2007). Assuming an effect size of 0.15, a significance level of 5%, statistical power of 80%, and the seven constructs included in our study, the statistical software required 103 participants to test the proposed model. Thus, our sample size is sufficient.

### 4. Results

In the Smart PLS algorithm, using bootstrapping with 5000 subsamples, we test the hypotheses. This software is particularly appropriate for exploratory research, such as this study (Hair et al., 2019).

#### 4.1. Measurement model assessment

Table 1 presents evidence of the reliability of the measurement instrument. The factorial loadings of the indicators, Cronbach's alpha values, and composite reliability of the constructs all exceed the minimum level of 0.70 (Hair et al., 2014). The average variance extracted (AVE) of the reflective constructs also are greater than 0.70 (Bagozzi and Yi, 1988), thus demonstrating their convergent validity.

#### 4.2. Structural model

To evaluate the structural model, we use partial least squares structural equation modeling (PLS-SEM). The normalized fit index was

**Table 1**

Construct reliability and convergent validity.

CONSTRUCTS	ITEM	FACTOR LOADING	CRONBACH'S ALPHA	COMPOSITE RELIABILITY	AVERAGE VARIANCE EXTRACTED (AVE)
Environmental SDG	ENV1	0.923	0.884	0.928	0.812
	ENV2	0.890			
	ENV3	0.890			
Social SDG	SOC1	0.906	0.863	0.916	0.785
	SOC2	0.862			
	SOC3	0.890			
Economic SDG	ECO1	0.836	0.894	0.926	0.759
	ECO2	0.906			
	ECO3	0.863			
	ECO4	0.878			
Reputation	REP1	0.846	0.929	0.950	0.826
	REP2	0.944			
	REP3	0.933			
	REP4	0.909			
Trust	TRU1	0.882	0.850	0.909	0.770
	TRU2	0.918			
	TRU3	0.831			
User-Organization Identification	IDE1	0.944	0.934	0.958	0.884
	IDE2	0.959			
	IDE3	0.918			
Loyalty Intention	LOY1	0.948	0.949	0.967	0.908
	LOY2	0.947			
	LOY3	0.964			

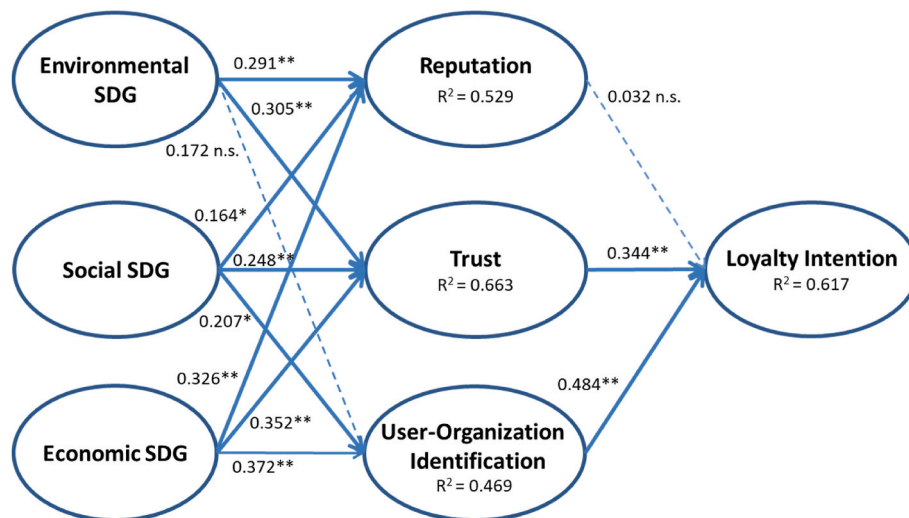
With regard to the discriminant validity of the constructs, the results in Table 2 reveal that the interconstruct correlations do not exceed the square roots of the constructs' AVEs (Fornell and Larcker, 1981). We also checked for discriminant validity using the heterotrait-monotrait ratio, for which the values are below 0.85 for all variables (Kline, 2011).

**Table 2**

Correlations and discriminant validity.

	1	2	3	4	5	6	7
1. Environmental SDG	<b>0.901</b>	0.856	0.869	0.750	0.868	0.675	0.656
2. Social SDG	0.754	<b>0.886</b>	0.842	0.710	0.848	0.677	0.664
3. Economic SDG	0.776	0.741	<b>0.871</b>	0.751	0.871	0.718	0.679
4. Reputation	0.682	0.636	0.685	<b>0.909</b>	0.850	0.739	0.665
5. Trust	0.752	0.729	0.762	0.756	<b>0.878</b>	0.776	0.781
6. User-Organization Identification	0.616	0.612	0.658	0.689	0.693	<b>0.940</b>	0.790
7. Loyalty Intention	0.603	0.606	0.629	0.625	0.704	0.744	<b>0.953</b>

Notes: The diagonal elements (in bold) are the square roots of the AVEs (variance shared between constructs and their measures). Values above the diagonal indicate the heterotrait-monotrait ratio. Values below the diagonal elements are the interconstruct correlations.

**Fig. 3.** Structural model results.

\* $p < 0.05$ , \*\* $p < 0.01$ , n. s. non-significant.

Notes: Solid lines indicate significant effects, and dashed lines indicate non-significant effects.

0.84, slightly below the recommended 0.90 value (Hu and Bentler, 1998). The residual root mean square standard equals 0.075, which is less than 0.080 and thus indicates a good level of fit (Hu and Bentler, 1998). With regard to the collinearity assessment, all the variance inflation factors are below the 3.3 threshold (Hair et al., 2019).

#### 4.3. Hypotheses tests

Implementing different SDGs (environmental, social, and economic) evoked different effects on users' perceptions, as we show in Fig. 3. Specifically, the organization's reputation improved if users perceived that it complied with environmental ( $\beta = 0.305, p < 0.01$ ), social ( $\beta = 0.164, p < 0.05$ ), and economic ( $\beta = 0.326, p < 0.01$ ) goals, in support of H1a, H1b, and H1c. Similarly, trust in the organization increased if users perceived it complied with environmental ( $\beta = 0.291, p < 0.01$ ), social ( $\beta = 0.248, p < 0.01$ ), and economic ( $\beta = 0.352, p < 0.01$ ) goals, in support of H2a, H2b, and H2c. However, users' perceptions of the fulfillment of the environmental SDGs did not significantly affect their user–organization identification ( $\beta = 0.172, p > 0.05$ ), in contrast with our prediction in H3a. Rather, user–organization identification increased only with users' perceptions of its compliance with social ( $\beta = 0.207, p < 0.05$ ) and economic ( $\beta = 0.372, p < 0.01$ ) goals, in line with H3b and H3c.

Users' perceptions of the organization in turn affected their loyalty intentions differently too. Reputation perceptions did not significantly affect loyalty ( $\beta = 0.032, p > 0.05$ ), so we must reject H4. But as predicted in H5 and H6, loyalty was significantly and positively affected both by trust ( $\beta = 0.344, p < 0.01$ ) and user–organization identification ( $\beta = 0.484, p < 0.01$ ). Furthermore, using the  $R^2$  indicator to reflect the variance explained by each dependent variable (Fig. 3), we note that trust exhibited substantial explanatory power, whereas loyalty, reputation, and user–organization identification offered more moderate explanatory power (Chin, 1998).

#### 4.4. Mediation effects analyses

To identify the form of influence exerted by implementing the SDGs on loyalty, we ran a test of whether the effects are direct, mediated partially, or mediated totally by users' assessments of the organization (i.e., reputation, trust, and identification). To check for indirect effects, we used a bootstrapping procedure in SmartPLS with 5000 samples. Formal mediation exists if the confidence intervals of the indirect total effect do not span 0 (Nitzl et al., 2016). Then, to determine if the identified mediation was partial or total, we calculated the direct effects of achieving the environmental, social, and economic SDGs on loyalty intentions. As the findings listed in Table 3 reveal, the effect of achieving environmental SDGs affected loyalty only through trust, which exercised full mediation. Reputation and user–organization identification did not have significant mediating effects. The effects of implementing both social and economic SDGs were mediated by trust and identification, but not by reputation. Overall, none of the implementation efforts of environmental, social, and economic SDGs exhibited direct effects on loyalty, so we conclude that the mediating variables we have identified produced total mediation.

## 5. Discussion

In analyzing the impact of implementing SDGs by an education provider on users' perceptions, relationships, and loyalty intentions, we highlight the value of SDG-related activities for the organization itself, beyond the intended benefits for the environment, society, and overall economic welfare (RQ1). Furthermore, we clarify the relative impacts of different types of SDGs (RQ2). As the study results establish (see Table 4), compliance with environmental SDGs influences reputation and trust but not user–organization identification. That is, compliance with environmental SDGs increases education providers' public image,

**Table 3**

Direct and indirect effects.

Direct Effects	$\beta$	[LLCI   ULCI]	Significance
Environmental SDG → Reputation	0.305	[0.135   0.476]	Yes
Environmental SDG → Trust	0.291	[0.150   0.445]	Yes
Environmental SDG → User–organization identification	0.172	[-0.013   0.362]	No
Social SDG → Reputation	0.164	[0.025   0.308]	Yes
Social SDG → Trust	0.248	[0.112   0.394]	Yes
Social SDG → User–organization identification	0.207	[0.049   0.369]	Yes
Economic SDG → Reputation	0.326	[0.144   0.505]	Yes
Economic SDG → Trust	0.352	[0.202   0.496]	Yes
Economic SDG → User–organization identification	0.372	[0.195   0.554]	Yes
Reputation → Loyalty	0.032	[-0.103   0.168]	No
Trust → Loyalty	0.344	[0.191   0.494]	Yes
User–organization identification → Loyalty	0.484	[0.369   0.598]	Yes
Environmental SDG → Loyalty	0.017	[-0.129   0.171]	No
Social SDG → Loyalty	0.072	[-0.089   0.227]	No
Economic SDG → Loyalty	0.036	[-0.150   0.209]	No
Indirect effects	$\beta$	[LLCI   ULCI]	Significance
Environmental SDG → Reputation → Loyalty	0.010	[-0.035   0.053]	No
Environmental SDG → Trust → Loyalty	0.100	[0.045   0.186]	Yes
Environmental SDG → Identification → Loyalty	0.083	[-0.004   0.181]	No
Social SDG → Reputation → Loyalty	0.005	[-0.014   0.040]	No
Social SDG → Trust → Loyalty	0.085	[0.033   0.167]	Yes
Social SDG → Identification → Loyalty	0.100	[0.024   0.195]	Yes
Economic SDG → Reputation → Loyalty	0.010	[-0.031   0.065]	No
Economic SDG → Trust → Loyalty	0.085	[0.063   0.204]	Yes
Economic SDG → Identification → Loyalty	0.180	[0.089   0.284]	Yes

Notes: LLCI = lower limit confidence interval; ULCI = upper limit confidence interval.

**Table 4**

Summary of findings and hypotheses tests.

HYPOTHESES	RELATIONSHIP	RESULT
H1a	Environmental SDG → Reputation	Supported
H1b	Social SDG → Reputation	Supported
H1c	Economic SDG → Reputation	Supported
H2a	Environmental SDG → Trust	Supported
H2b	Social SDG → Trust	Supported
H2c	Economic SDG → Trust	Supported
H3a	Environmental SDG → Identification	Not supported
H3b	Social SDG → Identification	Supported
H3c	Economic SDG → Identification	Supported
H4	Reputation → Loyalty intention	Not supported
H5	Trust → Loyalty intention	Supported
H6	Identification → Loyalty intention	Supported

prestige, and reputation among their stakeholders, in line with previous

research that links environmental protection to firm reputations (Gómez-Carmona et al., 2021; Hameed et al., 2022). In addition, users trust organizations that demonstrate greater commitment to environmental aspects, which represents the principal mediator between environmental SDGs and loyalty, in line with previous studies that focus more broadly on environmental practices rather than SDGs in particular (Chang and Jai, 2015; Hameed et al., 2022). However, environmental efforts, which tend to be the most common domain pursued by organizations, are insufficient to create personal or emotional bonds that promote user–organization identification.

Instead, compliance with social SDGs can benefit not just company reputation and trust but also user–organization identification. If they promote educational activities and social causes, firms can communicate their altruistic goals for society in general, which improves users' perceptions and sense of connection with the firm, in line with previous evidence that organizations that incorporate philanthropy and community solidarity in their value propositions enjoy greater user–organization identification (Aaker, 1996; Maignan et al., 1999; Bhattacharya and Sen, 2003).

Achieving economic SDGs also enhances reputation, trust, and user–organization identification, in line with theoretical predictions (Fleacă et al., 2018) and early studies conducted even before the SDGs had been published (Vilanova et al., 2009). Education providers must consider economic aspects, because their main objective is to provide students with professional training to help them enter labor markets. But their efforts cannot end there; instead, they must continuously update and provide knowledge that can increase the versatility and professional conversion of users to improve their perceptions and sense of identification with the firm.

Across all the SDGs pursued by an organization, achieving loyalty requires establishing trust among users; fortunately, as our results show, trust increases with actions related to any SDG types. That is, we establish that in an SDG context, trust remains critical for determining consumer loyalty. User–organization identification also appears highly relevant for increasing loyalty. Specifically, we find that users appreciate when their education provider goes a step beyond its core tasks (e.g., educating and training students) and commits to the social and economic fabric in ways that create benefits for the whole community (e.g., local companies and residents). By committing to society and sustainable economic development, educational institutions can generate a sense of belonging among users, leading to their greater loyalty.

Finally, our mediation analyses confirm that organizational loyalty emerged through trust and user–organization identification, which provide signals that the firm is doing things right. In contrast, reputation did not produce greater loyalty; we posit that it may represent a more superficial consequence of SDG implementations.

### 5.1. Theoretical contributions

Our study offers several theoretical insights. First, we establish a broad perspective on how different SDGs affect individual perceptions. Whereas recent research tends to focus on the impact of activities designed to address a particular SDG (Germann et al., 2023), we address the relative importance of all three axes for reputation, trust, and user identification outcomes. This perspective also advances research that uses the SOR model to understand customers' responses to general CSR strategies (Chang and Jai, 2015; Su et al., 2017) or green practices (Hameed et al., 2022).

Second, in analyzing users' perceptions, we contribute theoretical insights into the factors that generate loyalty after organizations implement activities to address different SDGs. In particular, trust and user identification are key to generating loyalty toward the organization, in line with previous research that prioritizes trust for generating loyalty to a brand or service provider (Hollebeek and Rather, 2019), in both corporate management (Keh and Xie, 2009) and education

(Heffernan et al., 2018) contexts. Trust in an educational institution generates loyalty, as does user identification with that institution, similar to the process by which brand identification creates a closer bond that prompts loyalty to universities (Heffernan et al., 2018). However, the reputation of the institution is not relevant to loyalty, contesting some arguments that reputation is relevant in the absence of users' identification with an organization (Rasoolimanesh et al., 2021).

Third, this study depicts the effects of implementing SDGs in educational institutions through an empirical analysis, such that we complement existing theoretical efforts to date (Soonsiripanichkul and Ngamcharoenmongkol, 2019). Our findings add to recent discussions of the application of SDG in the education sector that focus on students' learning and critical thinking about sustainable development (González García et al., 2020; Abad-Segura and González-Zamar, 2021). In so doing, we respond to calls for research that specifies how implementing SDG activities contributes to engagement cycles (Weybrecht, 2017), which we demonstrate in the form of improved user–organization relationships and loyalty to the institution.

### 5.2. Managerial implications

This research highlights the positive effects of a strong organizational commitment to the SDGs but also clarifies that such commitment and the specific actions that reflect it must be clearly and adequately communicated to stakeholders. In this regard, we recommend that educational institutions assign more resources to accomplishing the SDGs and increasing the visibility of their actions. Considering the benefits of the SDGs for internal and external stakeholders, financial support for such initiatives already has expanded among universities (Abad-Segura and González-Zamar, 2021); we recommend such support also be applied to other education providers, regardless of their size and private or public orientation.

In educational settings, increased loyalty generated from SDG commitments can help reduce dropout rates and increase the chances that users continue to use available education resources as their needs change. However, as we have shown, implementing SDGs does not directly stimulate loyalty but rather moves through trust and user–organization identification. Therefore, we recommend that educational institutions, such as the center in which we conducted this study, create environments of trust and community, with common objectives, to which all participating stakeholders contribute. To generate closer emotional bonds with users, the organization might solicit their direct involvement in activities related to SDG awareness and support campaigns (e.g., resource support for group activities, social network campaigns personally linked to users). These actions can be combined with branding efforts, such as shirts or social media pages that bear the institutional logo together with SDG-related imagery (Heffernan et al., 2018), to achieve greater user engagement (Ismagilova et al., 2021).

Finally, we caution organizations against implementing SDGs merely to improve their images. They must demonstrate altruistic views; reputation alone is insufficient to promote loyalty. The primary goal of SDG efforts should be to exert direct impacts on the operational environment, particularly in social and economic terms, to encourage users' trust and identification with them and their objectives, which leads to greater loyalty. Notably, educational institutions might establish networks and alliances with other social entities that aid communities, promote sustainable business entrepreneurship, or encourage the integration of students into labor markets. Such alliances and joint efforts with both public and private entities (Shulla et al., 2020) should benefit the economic and social development of the community, as well as the institution itself.

### 5.3. Limitations and further research

Despite these interesting insights, the present study has some limitations that require further research consideration. First, we test the

proposed model solely in an educational setting, which tends to be relatively closely associated with SDG values. To confirm the generalizability of our results, continued research might seek to replicate our findings in other industrial and services sectors. Second, we conducted this study at one point in time; longitudinal studies that analyze how the influence exerted by the variables varies over time would be helpful too. Third, additional studies might assess the unique influence of support for the SDGs on the perceptions and behavioral intentions of other stakeholders, such as local business owners.

## 6. Conclusion

The SDGs offer new opportunities and clear guidelines for how organizations can work to benefit environmental, social, and economic outcomes and, in so doing, strengthen relationships with key stakeholders, customers, and users. We confirm that implementing SDGs has a positive impact on the organization, by increasing the loyalty of users toward it. However, this effect is not direct but rather is fully mediated by trust and user–organization identification. Given the global scope of the SDGs, organizations in other countries and contexts likely can benefit from our main finding and recommendation: Organizations should focus on achieving the SDGs, not just use them to improve their images. In particular, they should try to achieve the SDGs that are most aligned with their missions and goals so that users appreciate their efforts and perceive stronger user–organization bonds.

## CRediT author statement

**Sergio Barta:** Formal analysis, Writing – Review & Editing. **Daniel Belanche:** Project administration, Conceptualization, Formal analysis. **Marta Flavián:** Methodology, Writing – Original Draft. **Mari Cruz Terré:** Conceptualization, Methodology, Writing Original Draft.

## Novelty and relevance statement

The authors of the research would like underline the novelty and relevance of our research, together with the specific contribution to the

research field:

- 1) This research investigates SDGs implementation and their impact on companies and stakeholders. In particular, how this process affects the user-organization relationship.
- 2) The study distinguishes between environmental, social and economic SDGs, and their differential impact on key variables of corporate management and marketing (i.e., reputation, trust, user-organization identification, and loyalty intentions).
- 3) The study analyses an education company, a sector of paramount importance for spreading the SDGs. However, it focuses on a private company with its own business strategy, which allows generalization of results to other companies deciding whether to implement the SDGs depending on stakeholders' reactions.
- 4) The specific features of the manuscript (i.e., novel topic almost unexplored empirically, contribution to a growing CSR area, linked to well established corporate variables) increase the interest of a wide audience.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data will be made available on request.

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## APPENDIX. Measurement Scales

PERCEPTIONS OF COMPLIANCE WITH THE ENVIRONMENTAL SDGs (Adapted from Alvarado, 2008; Li et al., 2020)	
	The center ...
ENV1	Tries to promote pro-environmental activities.
ENV2	Tries to properly recycle its waste.
ENV3	Tries to make rational use of natural resources.
PERCEPTIONS OF COMPLIANCE WITH THE SOCIAL SDGs (Adapted from Alvarado, 2008 and Li et al., 2020)	
	The center ...
SOC1	Tries to promote and develop educational activities in the community.
SOC2	Tries to promote social values such as good health and gender equality.
SOC3	Tries to collaborate to promote social causes.
PERCEPTIONS OF COMPLIANCE WITH THE ECONOMIC SDGs (Adapted from Alvarado, 2008 and Li et al., 2020)	
	The center ...
ECO1	Tries to be productive by controlling its operating costs.
ECO2	Tries to create loyal clients to achieve the maximum economic well-being within the community and financial success.
ECO3	Tries to satisfy all its stakeholders
ECO4	Tries to promote decent work to reduce inequalities.
	The center is...
ORGANIZATIONAL REPUTATION (Adapted from Ahearne et al., 2005)	
REP1	Well-known
REP2	Respected
REP3	Admired
REP4	Prestigious
	The center...
TRUST (Adapted from Flavián et al., 2006)	
TRU1	I trust the center because it has my best interests in mind.
TRU2	I think that the center has the capabilities needed to carry out its work reliably.
TRU3	

(continued on next page)

(continued)

I think I can have confidence in the promises the center makes.	
USER–ORGANIZATION IDENTIFICATION (Adapted from Belanche et al., 2014)	
IDE1	I feel part of the center.
IDE2	I identify with the center.
IDE3	The center means a lot to me.
LOYALTY INTENTIONS (Adapted from Belanche et al., 2011)	
LOY1	I intend to use the center again when the need arises.
LOY2	I intend to use the center again when the need arises.
LOY3	I would like to use the center again when the need arises.

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