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THE TRUST-AWARENESS PARADOX: A MULTI-LEVEL ANALYSIS OF SOCIAL CAPITAL AND ORGANIZATIONAL TRUST IN TRANSLATING SDG LITERACY INTO INSTITUTIONAL PRACTICE

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ABSTRACT

Higher education institutions (HEIs) play a critical role in advancing the Sustainable Development Goals (SDGs), yet translating SDG awareness into institutional practice remains a persistent challenge. This study investigates the Trust-Awareness Paradox, defined as the gap between high levels of institutional trust and limited functional SDG literacy among stakeholders. Drawing on social capital and organizational trust theories, this study proposes a multi-level model that explains how relational dynamics influence the effectiveness of sustainability communication. A survey of 684 students and employees from a multi-campus Philippine state university—Ifugao State University—was analyzed using Structural Equation Modeling (SEM). The results indicate that organizational trust significantly improves perceptions of communication effectiveness but has only a limited direct effect on SDG literacy. In contrast, social capital exerts a strong positive effect on literacy and fully mediates the relationship between trust and learning outcomes. These findings suggest that formal communication strategies alone are insufficient to drive sustainability engagement. The study provides practical implications for HEIs by emphasizing the need to complement communication platforms with network-based and participatory approaches, such as peer learning, communities of practice, and interdisciplinary collaboration across campuses. By highlighting the central role of social capital, this research contributes to the operationalization of SDG integration strategies in higher education, particularly in developing country contexts.

KEYWORDS: SDG Implementation; Higher Education; Social Capital; Sustainability Communication; SEM; Organizational Trust.

1. INTRODUCTION

Over the past decade, the adoption of the 2030 Agenda has fundamentally reshaped the role of universities in advancing sustainable development. Higher Education Institutions (HEIs) are no longer seen as passive transmitters of knowledge; they are increasingly framed as active sites where global sustainability ambitions are interpreted, negotiated, and—ideally—put into practice. While this shift appears straightforward in policy documents, translating the Sustainable Development Goals (SDGs) into everyday institutional routines is far more complex. It demands that people inside the institution actually understand, internalize, and act on these ideas in meaningful ways (Chankseliani & McCowan, 2021; Leal Filho et al., 2021).

However, significant gaps remain. In many universities, sustainability is highly visible—featured on websites, embedded in mission statements, and showcased in reports—yet remains disconnected from the day-to-day practices of students and staff. Faculty members may recognize SDG icons displayed on campus but struggle to connect them to course design and instructional practices. Students may be familiar with concepts such as climate action or responsible consumption but possess only a superficial understanding of their practical implications. The result is superficial dissemination: sustainability is communicated but not necessarily understood.

Ideally, one would expect a different picture. In a well-functioning institutional ecosystem, SDG literacy would circulate fluidly across formal and informal spaces. Official communication channels—websites, seminars, policy briefs—would not only inform but also engage. Trust in institutional messaging would encourage stakeholders to take these ideas seriously, while everyday interactions among peers, mentors, and communities would deepen and contextualize understanding. In such an environment, awareness would gradually evolve into practice. But this ideal remains, more often than not, aspirational. What we see instead is uneven literacy, pockets of engagement, and persistent gaps between what institutions say and what their members actually do (Aleixo et al., 2021; Disterheft et al., 2020).

This gap points to a deeper issue, one that cannot be reduced to communication failure alone. The problem is not simply that information about the SDGs is unavailable. In fact, it is often abundant. Rather, the issue lies in how that information is received, interpreted, and shared within the social fabric of the institution. Stakeholders may express

confidence in official communication channels—rating them as effective, accessible, even trustworthy—yet still demonstrate only a surface-level grasp of sustainability concepts. This tension, subtle but consequential, is what this study conceptualizes as the Trust-Awareness Paradox: the coexistence of high institutional trust and low functional literacy.

At first glance, this might seem counterintuitive. If people trust the institution and its communication systems, shouldn't that translate into better understanding? Much of the existing literature implicitly assumes so. Efforts to strengthen SDG implementation have therefore focused on improving visibility—integrating sustainability into curricula, expanding digital platforms, refining reporting mechanisms. These interventions are not without merit. Embedding SDGs into teaching, for instance, has been linked to increased exposure and awareness among students (Leal Filho et al., 2021). Similarly, sustainability reporting has been associated with greater institutional accountability (Bebbington & Unerman, 2020). But there is a lingering assumption here—that information flows neatly from institution to individual, and that exposure leads, almost automatically, to comprehension and action.

That assumption deserves closer scrutiny. Knowledge does not move in linear pathways but is socially constructed through interaction and shared experience (Wiek et al., 2011; Brundiers et al., 2010). Students are often more influenced by peer-based interactions than by formal institutional communication channels (Chankseliani & McCowan, 2021; Evans, 2019). New employees frequently develop a deeper understanding of institutional values through informal mentoring and social interactions rather than through formal orientation programs (Evans, 2019). These are not marginal processes; they are central to how understanding takes shape. And yet, they remain underexamined in much of the SDG literature, which tends to privilege formal structures over relational dynamics (Chankseliani & McCowan, 2021).

The consequences of overlooking these dynamics are not trivial. At the institutional level, sustainability initiatives risk becoming performative—visible and measurable but lacking substantive impact (Bebbington & Unerman, 2020; Corazza & Saluto, 2021). At the individual level, stakeholders may disengage, not out of resistance, but because the connection between abstract goals and concrete action is never fully made. Over time, this disconnect can erode the transformative potential of HEIs,

reducing their role in the SDG agenda to symbolic compliance rather than substantive contribution. In contexts where resources are already constrained, such inefficiencies are particularly costly.

What remains less understood—and this is where the present study positions itself—is how social relationships within institutions shape the translation of awareness into practice. Two concepts become especially relevant here: social capital and organizational trust. Broadly defined, social capital refers to the value embedded in relationships—the networks through which information flows and norms are reinforced. Organizational trust, on the other hand, captures the confidence stakeholders place in institutional systems and actors. Both have been studied extensively, though often in isolation. What is less explored is how they interact in the specific context of SDG literacy.

This study integrates these theoretical perspectives through a multi-level analytical framework to address a central research question: why does awareness fail to deepen, even when institutions communicate effectively and are broadly trusted? The working proposition is that trust alone is insufficient. Without strong relational networks—without the everyday exchanges that give meaning to information—awareness remains thin. Social capital, in this sense, does not merely complement communication; it mediates it. It is the space where information becomes understanding and where understanding is translated into action.

1.1. Objectives of the Study

In light of these considerations, the study seeks to explain the mechanisms underlying the Trust-Awareness Paradox in higher education institutions. Specifically, it examines the relationships among organizational trust, communication effectiveness, social capital, and SDG literacy, with particular attention to how these factors contribute to stakeholders' understanding of sustainability. The study further investigates the extent to which organizational trust influences perceptions of communication effectiveness and how social capital contributes to the development of SDG literacy. Finally, it tests the mediating role of social capital in the relationship between organizational trust and SDG literacy to better understand the mechanisms through which trust contributes to sustainability learning and institutional practice. The contribution of this study is twofold.

Conceptually, it shifts the conversation from “how much people know” to “how knowledge actually travels within institutions.” By foregrounding relational dynamics, it offers a more grounded account of why well-designed communication strategies sometimes fall short. Practically, it speaks to a familiar challenge faced by universities: how to move from awareness campaigns to genuine engagement. For policymakers and institutional leaders, the findings suggest that investing in platforms alone is not enough; attention must also be given to the social infrastructure that supports learning and interaction.

The paper follows a structured progression. It begins by establishing the broader terrain—the growing importance of HEIs in advancing the SDGs and the centrality of stakeholder literacy. It then narrows in on a gap: despite extensive efforts, the link between communication and meaningful understanding remains weak, largely because the social processes involved are underexplored. Finally, it occupies this space by proposing and testing a multi-level framework that explains how social capital and organizational trust interact to shape SDG literacy. In doing so, it offers a different way of thinking about institutional change—one that takes relationships, not just structures, seriously.

2. THEORETICAL FRAMEWORK

The preceding review of literature points to a recurring but insufficiently explained pattern: while HEIs have become increasingly adept at communicating sustainability and generating broad awareness of the SDGs, this has not consistently translated into deep, actionable literacy. Studies on SDG awareness reveal high levels of recognition but limited conceptual depth (Aleixo *et al.*, 2021; Leal Filho *et al.*, 2023). Research on institutional communication highlights the expansion of digital and formal dissemination strategies, yet also exposes their weak connection to meaningful engagement (Disterheft *et al.*, 2020; Bebbington & Unerman, 2020). At the same time, scholarship on organizational trust suggests that credibility enhances receptivity, but does not necessarily ensure learning or behavioral change (Corazza & Saluto, 2021). Finally, emerging work on social capital underscores the importance of relational networks in knowledge diffusion, though these dynamics remain under-integrated into SDG implementation models (Chankseliani & McCowan, 2021; Leal Filho *et al.*, 2021).

Collectively, these strands of literature suggest that the challenge of SDG implementation in HEIs is

not simply a matter of improving communication or increasing awareness. Rather, it is rooted in the social processes through which knowledge is interpreted, shared, and internalized. Building on this insight, the present study advances a multi-level theoretical framework that integrates social capital and organizational trust to explain what is conceptualized as the Trust-Awareness Paradox.

Recent scholarship on sustainability in higher education emphasizes that awareness alone does not necessarily translate into meaningful engagement or behavioral change. While global frameworks such as the United Nations 2030 Agenda for Sustainable Development and the UNESCO Education for Sustainable Development roadmap underscore the central role of universities in advancing the Sustainable Development Goals (SDGs), empirical evidence suggests that institutional efforts often result in superficial levels of understanding among stakeholders (UNESCO, 2020; United Nations, 2015). Studies have shown that although SDG-related content is increasingly embedded in curricula and institutional policies, this integration frequently lacks depth and fails to produce transformative learning outcomes (Aleixo et al., 2021; Leal Filho et al., 2023).

From a pedagogical perspective, sustainability education requires the development of key competencies such as systems thinking, anticipatory skills, and collaborative problem-solving (Wiek et al., 2011). However, traditional modes of instruction and formal communication channels are often insufficient to cultivate these competencies. Experiential and participatory learning approaches—such as real-world problem-solving and interdisciplinary collaboration—have been shown to enhance sustainability literacy by situating knowledge within meaningful contexts (Brundiers et al., 2010; Evans, 2019). This aligns with the broader argument that learning is not solely a cognitive process but is socially constructed through interaction and shared experience.

The concept of social capital provides a critical lens for understanding these relational dynamics. Foundational theories (Bourdieu, 1986; Coleman, 1988; Putnam, 2000) conceptualize social capital as the resources embedded in social networks that facilitate coordination and knowledge exchange. In higher education contexts, both bonding and bridging social capital have been found to influence how sustainability knowledge is disseminated and internalized (Chankseliani & McCowan, 2021). Informal networks—peer discussions, mentoring relationships, and communities of practice—play a particularly important role in translating abstract

sustainability concepts into practical understanding.

At the same time, organizational trust has been identified as a key factor influencing stakeholder engagement with institutional initiatives. Trust enhances the perceived credibility of communication channels and increases receptivity to institutional messages (Bebbington & Unerman, 2020). However, existing research indicates that trust alone does not guarantee deep learning or behavioral change (Corazza & Saluto, 2021). Stakeholders may accept institutional messages as legitimate without actively engaging with their content, resulting in a gap between awareness and application.

This gap highlights a critical limitation in current SDG implementation strategies. While institutions have invested heavily in communication platforms and visibility initiatives, these efforts often overlook the social processes through which knowledge is constructed and internalized. As a result, sustainability initiatives risk becoming symbolic rather than transformative. Addressing this limitation requires a shift from linear models of information dissemination to relational models that emphasize the role of social capital in mediating the effects of organizational trust on learning outcomes.

Social capital theory provides a crucial starting point for understanding the relational dimension of SDG literacy. Traditionally conceptualized as the resources embedded in social networks that facilitate coordination and collective action, social capital has been widely applied in educational and organizational contexts to explain how knowledge circulates within groups. While earlier theoretical foundations (Bourdieu, 1986; Coleman, 1988; Putnam, 2000) emphasize the structural and normative dimensions of networks, more recent studies in higher education highlight the role of both bonding ties (close, homogeneous networks) and bridging ties (connections across diverse groups) in shaping learning outcomes and collaborative engagement (Chankseliani & McCowan, 2021; Leal Filho et al., 2021).

Evidence indicates that these relational structures are not peripheral but central to sustainability learning processes (Wiek et al., 2011; Chankseliani & McCowan, 2021). For instance, findings indicate that students often rely more on peer discussions and informal networks than formal institutional platforms for interpreting sustainability concepts (Chankseliani & McCowan, 2021; Evans, 2019), highlighting the critical role of informal knowledge exchange. In this context, social capital functions not merely as a background condition but as an active mechanism through which abstract sustainability

ideas are translated into shared meanings and situated practices. This directly addresses the observed gap between awareness and application identified in prior studies.

Complementing this perspective, organizational trust theory offers insight into how stakeholders engage with institutional communication. Trust, understood as confidence in an organization's intentions and competence, is frequently associated with increased acceptance of institutional initiatives (Bebbington & Unerman, 2020). Within the SDG context, trust in university leadership and communication platforms is often assumed to enhance stakeholder responsiveness. However, as highlighted in the literature, this assumption is only partially supported. While stakeholders may rate institutional communication channels as credible and effective, this does not necessarily correspond to deeper understanding or sustained engagement (Corazza & Saluto, 2021).

This disconnect is critical. It suggests that trust may operate more as a form of symbolic endorsement than as a driver of cognitive processing. Stakeholders may accept institutional messages as valid without actively engaging with their content. In other words, trust can coexist with passivity. This insight helps explain why improvements in communication infrastructure—such as more accessible websites or expanded reporting systems—do not always lead to improved literacy outcomes.

The intersection of these two perspectives—social capital and organizational trust—provides the basis for conceptualizing the Trust-Awareness Paradox. As indicated in the literature, institutions can achieve high levels of visibility, credibility, and perceived communication effectiveness while still failing to cultivate meaningful understanding among stakeholders. The paradox, therefore, lies not in the absence of communication or trust, but in their limited capacity to produce learning in the absence of strong relational networks. This reframes the problem identified in earlier studies: the issue is not simply that communication is ineffective, but that it is insufficient when detached from the social contexts in which knowledge is constructed.

To address this gap, the present framework posits that social capital mediates the relationship between organizational trust and SDG literacy. While organizational trust may enhance the perceived

legitimacy of communication channels, it does not directly translate into deep learning. Instead, it is through interpersonal networks—peer interactions, mentoring relationships, and community engagement—that information is contextualized, debated, and ultimately internalized. This proposition is consistent with the literature's emerging emphasis on participatory and experiential learning, but extends it by explicitly modeling the mediating role of social relationships.

Furthermore, the framework adopts a multi-level perspective, reflecting the layered nature of the problem identified in the literature review. At the micro level, individual characteristics such as tenure, discipline, and prior exposure influence how stakeholders encounter and interpret SDG-related information. This aligns with findings on uneven literacy across demographic and disciplinary groups. At the meso level, organizational structures—including communication systems, training programs, and institutional culture—shape access to and perceptions of sustainability knowledge. At the macro level, broader institutional commitments and policy orientations define the strategic context within which these processes unfold. The interaction across these levels helps explain why similar communication strategies can produce different outcomes across groups and settings.

In synthesizing these elements, the theoretical framework responds directly to the limitations identified in the literature. It moves beyond linear models of information dissemination, integrates relational dynamics into the analysis of SDG literacy, and provides a mechanism-based explanation for observed inconsistencies between awareness, trust, and engagement. In doing so, it aligns closely with the objectives of the study, particularly in examining how communication effectiveness, organizational trust, and social capital interact to shape literacy outcomes.

Based on this framework, the study proposes the following hypotheses:

H1: Organizational trust positively influences communication effectiveness.

H2: Social capital positively influences SDG literacy.

H3: Organizational trust has a direct effect on SDG literacy.

H4: Communication effectiveness positively influences SDG literacy.

H5: Social capital mediates the relationship between organizational trust and SDG literacy.

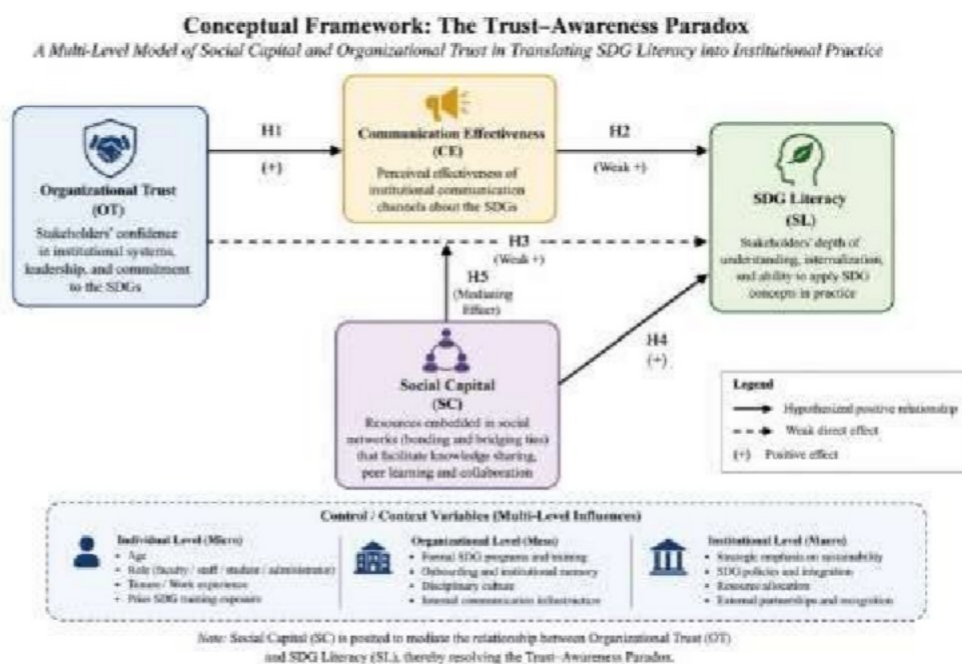


Figure 1. Conceptual Framework.

The conceptual framework of this study integrates social capital theory and organizational trust theory to explain the Trust-Awareness Paradox. It posits that SDG literacy is not simply a product of institutional communication but the outcome of interacting organizational and social dynamics.

At the structural level, organizational trust shapes how stakeholders perceive the credibility and effectiveness of institutional communication. Higher trust increases the likelihood that formal channels—such as websites, training programs, and official messaging—are regarded as reliable. However, communication effectiveness alone is assumed to have a limited direct impact on SDG literacy. Stakeholders may perceive communication as effective without developing a deep or functional understanding, reflecting the central tension of the paradox.

To address this gap, the framework positions social capital as a mediating variable. Social capital captures the role of interpersonal networks, peer interactions, and informal learning environments through which information is interpreted and internalized. It is therefore expected to exert a strong direct effect on SDG literacy and mediate the relationship between organizational trust and literacy.

The model also proposes a direct effect of organizational trust on SDG literacy, although this relationship is expected to be weaker than the indirect pathway through social capital. Finally, the framework is situated within a multi-level context, incorporating control variables such as demographic characteristics, disciplinary background, and institutional exposure to account for variation across stakeholder groups.

3. Methods

3.1 Research Design

This study employed a survey-based, explanatory research design to examine the relationships among organizational trust, communication effectiveness, social capital, and SDG literacy within higher education institutions. The design was cross-sectional and captured stakeholder perceptions at a single time point, while incorporating Structural Equation Modeling (SEM) to test hypothesized relationships and mediation effects. This approach aligns with the study's objective of explaining underlying mechanisms beyond descriptive analysis. Survey-based SEM designs are widely used in organizational and sustainability research where latent constructs and complex interrelationships are examined (Hair et al., 2021). Data collection was conducted from January to March 2025 across multiple campuses of the Philippine state university, providing a diverse institutional setting.

3.2 Data Sources

Primary data were collected using a structured questionnaire designed to measure SDG literacy, communication effectiveness, organizational trust, and social capital. The instrument was grounded in

existing literature and adapted to reflect the institutional context of sustainability in higher education. It consisted of four sections corresponding to the key constructs, with items measured using a five-point Likert scale ranging from strongly disagree to strongly agree. Prior to full implementation, the questionnaire was pilot tested with a small group of respondents to assess clarity, reliability, and internal consistency. Minor revisions were made to improve item wording and ensure alignment with the study constructs.

3.3 Sampling

The study included 684 respondents, comprising 325 employees and 359 students. Participants were selected using stratified purposive sampling to ensure representation across key demographic and institutional characteristics, including employment status, academic discipline, and campus affiliation. Inclusion criteria required respondents to be either currently enrolled students or actively employed staff during the study period. Individuals with less than one semester of affiliation were excluded to ensure sufficient exposure to institutional communication and sustainability initiatives. The resulting sample provided adequate representation across gender, academic levels, and disciplinary groups, which was necessary for examining variation across demographic, disciplinary, and institutional groups.

3.4 Variables and Data Processing

Four primary constructs were operationalized in the study: organizational trust, communication effectiveness, social capital, and SDG literacy. Organizational trust referred to stakeholders' confidence in institutional systems and leadership, while communication effectiveness captured perceptions of formal dissemination channels such as websites, training programs, and official messaging. Social capital represented the influence of interpersonal networks and informal learning environments, and SDG literacy was defined as the depth of understanding and ability to apply sustainability concepts in practice.

Data were screened for completeness, missing values, and response consistency prior to analysis. Construct reliability and validity were assessed using Cronbach's alpha, composite reliability, and average variance extracted (AVE). Structural relationships were examined using Partial Least Squares Structural Equation Modeling (PLS-SEM) with bootstrapping procedures to test direct and indirect effects.

4. Results and Discussion

4.1 Measurement Model Assessment

Before examining the hypothesized relationships, the reliability and validity of the measurement model were evaluated. Internal consistency reliability was assessed using Cronbach's alpha (α) and Composite Reliability (CR), while convergent validity was examined through the Average Variance Extracted (AVE).

Table 1. Reliability and Convergent Validity of the Measurement Model

Construct	No. of Items	Cronbach's α	CR	AVE
Organizational Trust	5	0.89	0.92	0.69
Communication Effectiveness	5	0.87	0.91	0.67
Social Capital	6	0.91	0.93	0.71
SDG Literacy	8	0.90	0.93	0.64

Thresholds: $\alpha > 0.70$; CR > 0.70; AVE > 0.50 (Hair et al., 2021).

Table 1 shows that all constructs exceeded the recommended thresholds for reliability and convergent validity. Cronbach's alpha values ranged from 0.87 to 0.91, indicating high internal consistency. Composite reliability values exceeded 0.90, demonstrating strong construct reliability. Similarly, AVE values ranged from 0.64 to 0.71, confirming that each construct explained more than 50% of the variance of its indicators.

These findings establish that the measurement model possesses adequate psychometric properties for

SCIENTIFIC CULTURE, Vol. 12, No 2.1, (2026), pp. 13286-

structural model testing.

Table 2 Discriminant Validity Using Fornell-Larcker Criterion

Construct	OT	CE	SC	SDGL
Organizational Trust (OT)	0.831			
Communication Effectiveness (CE)	0.562	0.819		
Social Capital (SC)	0.638	0.593	0.843	
SDG Literacy (SDGL)	0.321	0.387	0.698	0.800

The square roots of the AVE (diagonal values) exceeded the inter-construct correlations, confirming discriminant validity. This indicates that each construct captures a distinct aspect of sustainability

engagement and supports the theoretical differentiation between organizational trust, communication effectiveness, social capital, and SDG literacy.

4.2 Structural Model Assessment

The hypothesized relationships were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) with 5,000 bootstrap resamples.

Hypothesis	Path	β	t-value	p-value	Decision
H1	OT $\rightarrow$ CE	0.61	12.43	<0.001	Supported
H2	SC $\rightarrow$ SDGL	0.54	10.17	<0.001	Supported
H3	OT $\rightarrow$ SDGL	0.08	1.57	0.118	Not Supported
H4	CE $\rightarrow$ SDGL	0.19	3.28	0.001	Supported

The results indicate that organizational trust significantly predicts communication effectiveness ($\beta = 0.61$, $p < .001$), supporting H1. This suggests that stakeholders who trust university leadership and institutional systems are more likely to perceive sustainability communication as credible and useful.

Social capital emerged as the strongest predictor of SDG literacy ($\beta = 0.54$, $p < .001$), supporting H2. This finding highlights the importance of collaborative relationships and interpersonal networks in facilitating sustainability learning.

The direct relationship between organizational trust and SDG literacy was weak and statistically insignificant ($\beta = 0.08$, $p = .118$). These findings suggest that trust alone is insufficient to directly enhance sustainability literacy.

Communication effectiveness exhibited a modest but significant effect on SDG literacy ($\beta = 0.19$, $p = .001$), indicating that communication contributes to literacy but is insufficient without social interaction and relational engagement.

Table 4 Coefficient of Determination (R^2)

Endogenous Construct	R^2	Interpretation
Communication Effectiveness	0.372	Moderate
Social Capital	0.407	Moderate
SDG Literacy	0.487	Moderate

The model explained 37.2% of the variance in communication effectiveness and 48.7% of the variance in SDG literacy. According to Hair *et al.* (2021), these values indicate moderate explanatory power and suggest that the model captures important determinants of sustainability literacy within the university context.

Mediation Analysis

The mediating role of social capital was examined using bootstrapping procedures.

Relationship	Indirect Effect (β)	t-value	p-value	Result
OT $\rightarrow$ SC $\rightarrow$ SDGL	0.29	6.82	<0.001	Significant

The indirect effect of organizational trust on SDG literacy through social capital was significant ($\beta = 0.29$, $p < .001$). When social capital was included in the model, the direct effect of organizational trust on literacy became non-significant, indicating full mediation.

This finding supports H5 and confirms that social capital serves as the primary mechanism through which trust contributes to sustainability learning.

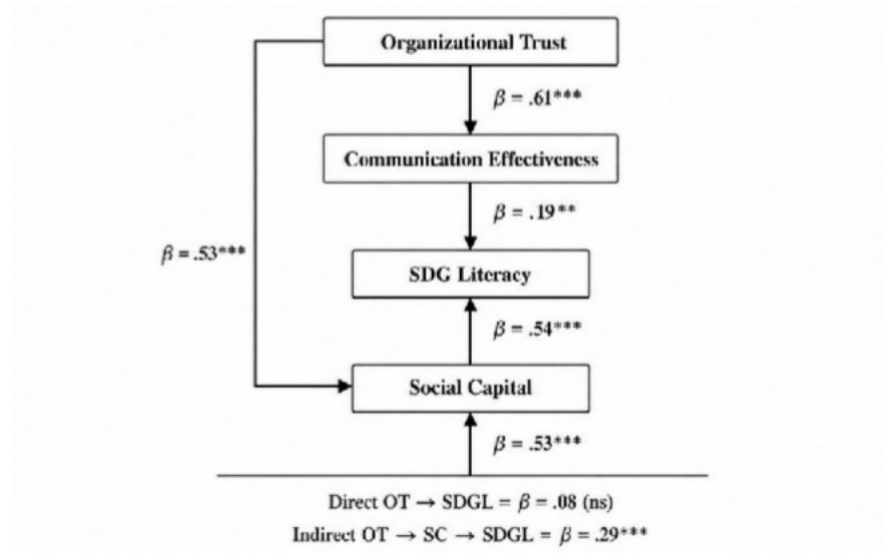


Figure 2. Structural Model of the Trust-Awareness Paradox

Figure 2 illustrates the final structural model. Organizational trust substantially improves communication effectiveness but has only a limited direct influence on SDG literacy. In contrast, social capital demonstrates the strongest effect on literacy and fully mediates the influence of trust.

The model empirically validates the Trust-Awareness Paradox, wherein stakeholders may trust institutional communication and perceive it as effective, yet still fail to develop deep sustainability literacy unless information is reinforced through social networks and collaborative learning environments.

4.3 Discussion

The Trust-Awareness Paradox

The most significant finding of the study is the confirmation of the Trust-Awareness Paradox. Although organizational trust positively influenced perceptions of communication effectiveness, it did not directly translate into higher SDG literacy. This finding challenges traditional assumptions that awareness

automatically results from trusted communication.

Social Capital as a Mediating Mechanism

Social capital emerged as the strongest predictor of SDG literacy. Stakeholders acquire a meaningful understanding of sustainability through peer interaction, mentoring relationships, interdisciplinary collaboration, and communities of practice rather than through formal communication alone.

Implications for Higher Education Institutions

The findings suggest that universities should move beyond information dissemination strategies and invest in social infrastructures that facilitate collaboration and learning. Sustainability advocates, peer-learning communities, interdisciplinary projects, and campus-wide communities of practice may be more effective for promoting SDG integration than awareness campaigns by themselves.

5. Conclusion

This study examined the Trust-Awareness

Paradox within higher education by investigating the relationships among organizational trust, communication effectiveness, social capital, and Sustainable Development Goal (SDG) literacy in a multi-campus state university. While universities worldwide continue to strengthen sustainability communication through institutional policies, websites, reports, and educational programs, the findings demonstrate that awareness alone does not necessarily translate into meaningful understanding or institutional practice. The study revealed that organizational trust significantly enhances perceptions of communication effectiveness; however, its direct influence on SDG literacy remains limited. Instead, social capital emerged as the strongest predictor of sustainability literacy and served as the primary mechanism through which institutional trust is translated into learning outcomes.

These findings advance the growing body of literature on sustainability in higher education by providing empirical evidence that the success of SDG integration depends not only on formal communication systems but also on the quality of social relationships within institutions. The study challenges conventional assumptions that increasing visibility and awareness automatically leads to stakeholder engagement. Rather, sustainability knowledge becomes meaningful when it is reinforced through peer interaction, mentoring relationships, interdisciplinary collaboration, and community-based learning networks. In this regard, social capital functions as a critical bridge between institutional intentions and individual action.

The study contributes to theory by introducing and empirically validating the Trust-Awareness Paradox, a phenomenon in which stakeholders express confidence in institutional communication and sustainability commitments but do not necessarily develop the level of literacy required to translate awareness into practice. This finding suggests that many higher education institutions may overestimate the effectiveness of communication-driven approaches while underestimating the importance of relational learning environments.

From a global perspective, the findings have important implications for the implementation of the United Nations 2030 Agenda for Sustainable Development. As universities increasingly assume leadership roles in advancing the SDGs, particularly in developing countries, the challenge extends beyond disseminating sustainability information to fostering institutional cultures that encourage dialogue, collaboration, and collective learning. The results suggest that universities seeking to contribute meaningfully to SDG attainment must move beyond compliance-oriented reporting and awareness campaigns toward participatory models that strengthen social cohesion and stakeholder engagement.

Ultimately, the study argues that sustainable development within higher education is fundamentally a social process. The achievement of the SDGs requires more than informed stakeholders; it requires connected communities capable of transforming knowledge into collective action. By highlighting the central role of social capital, this research provides a new lens through which universities can understand and strengthen their contributions to global sustainability transitions.

6. Recommendations

The findings suggest that higher education institutions should move beyond communication-centered approaches to SDG implementation and invest more deliberately in building social capital among stakeholders. While formal communication platforms remain important for disseminating sustainability information, universities should strengthen peer-learning opportunities, interdisciplinary collaborations, mentoring systems, and communities of practice that enable stakeholders to contextualize and internalize sustainability concepts through meaningful interaction.

Institutional leaders should integrate SDG literacy into employee induction programs, faculty development initiatives, and student orientation activities to address disparities in sustainability awareness and ensure that sustainability knowledge is consistently embedded across the university community. Particular attention should be given to strengthening sustainability integration within STEM disciplines, where technical competencies can be more explicitly linked to broader social, economic, and environmental challenges.

At the policy level, higher education regulators

and university ranking systems should consider expanding sustainability assessment frameworks beyond research outputs and institutional reporting. Measures of stakeholder literacy, collaborative engagement, and social learning processes should be incorporated to provide a more comprehensive evaluation of institutional contributions to the Sustainable Development Goals.

Given the global relevance of sustainability transitions, future research should validate the Trust-Awareness Paradox across diverse cultural and institutional settings and examine how social capital influences the translation of sustainability awareness into measurable behavioral and organizational outcomes. Such investigations would contribute to the development of more effective and context-responsive strategies for advancing the 2030 Agenda through higher education.

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