

SYSTEMATIC LITERATURE REVIEW: UNDERSTANDING THE CHALLENGES AND DRIVERS OF ENVIRONMENTAL SUSTAINABILITY ACROSS DEMOGRAPHIC, EDUCATIONAL, AND CULTURAL CONTEXTS – A CONSUMER AND WELL-BEING PERSPECTIVE

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Environmental sustainability is no longer a future ideal—it's a present-day imperative. From corporations to classrooms, there's growing pressure to act—but real progress remains uneven and complex (Oliveira et al., 2023; Jose & Ramakrishna, 2021).



Why is sustainability still unachieved despite awareness and efforts?

Although environmental sustainability has become a global priority, a consistent gap remains between awareness and action. Both institutions and individuals struggle with implementation—due to systemic barriers, behavioral inertia, and lack of integration between education, values, and daily choices (Peattie, 2010; Ramakrishna et al., 2022).

Objectives

- Identify key demographic and socioeconomic drivers (e.g., gender, age, income).
- Examine the role of environmental education in shaping behaviors.
- Investigate the gap between pro-sustainability attitudes and real-world actions.
- Assess education programs' effectiveness for children and adolescents.
- Connect sustainability habits to broader well-being—economic and health

Methodology



PRISMA Framework

Systematic Literature Review approach



102 Sources

Q1 SJR-ranked journals searched



28 Studies

Peer-reviewed (2015–2024)

Key Findings

Demographics and Sustainability Behaviors: What the Evidence Shows

- **Education and income foster sustainable consumption:** Individuals with higher education and income are more likely to engage in green purchasing and eco-friendly practices (Chekima et al., 2016; Schäufele & Hamm, 2017).
- **Women tend to be more environmentally concerned than men:** Studies show that women exhibit stronger environmental attitudes (Wong, Chan, & So, 2020; Vincenzi et al., 2018).
- **But gender effects vary by generation:** Among younger consumers, gender differences in sustainability behavior are less pronounced (Suhartanto et al., 2022).
- **Higher income doesn't always mean greener choices:** Wealthier individuals often favor personal vehicles over sustainable transportation, despite being environmentally aware (Sardianou & Nioza, 2015; Bai et al., 2020).
- **Education improves environmental behavior in community settings:** In contexts like Marine Parks, individuals with higher education were more likely to engage in eco-conscious actions (Masud & Kari, 2015).

Key Findings

Environmental Awareness Knowledge and Attitude-Behavior Gap Trends

- **Knowledge promotes sustainable choices—but not always behavior:** Environmental awareness is positively linked to eco-friendly consumption (Sun, Liu, & Zhao, 2019; Ogiemwonyi et al., 2023).
- **The attitude-behavior gap is a major obstacle:** People often express pro-environmental values but fail to act accordingly, especially in areas like e-waste and online shopping (Martinho, Magalhães, & Pires, 2017; Cauwelier et al., 2024).
- **COVID-19 didn't close the gap:** Despite increased awareness during the pandemic, green purchasing behavior remained largely unchanged (Pontes, Naranjo-Zolotov, & Painho, 2024).
- **Early education matters:** Environmental education—especially when introduced early—builds lasting pro-sustainability habits in children and adolescents (Van De Wetering et al., 2022; Liefländer & Bogner, 2014).
- **Interventions must target structural and psychological barriers:** Bridging the gap requires addressing not just awareness, but also access, motivation, and behavioral nudges (Martinho et al., 2017; Pontes et al., 2024).

Key Findings

Environmental Awareness Knowledge and Attitude-Behavior Gap Trends

- **Cultural norms influence environmental behavior:** Chinese adolescents are shaped by societal expectations emphasizing environmental protection (Geng, Liu, & Zhu, 2017).
- **Future-oriented values like “generativity” drive action:** A cultural mindset of caring for future generations promotes green consumption (Shiel, do Paço, & Alves, 2020).
- **Community engagement amplifies behavior change:** Social marketing and local initiatives in Seoul successfully promoted sustainable lifestyles through peer influence (Ha, Jeon, & Park, 2023).
- **Younger generations are sustainability frontrunners:** Gen Y shows stronger sustainable consumption patterns, especially through digital channels (Saini et al., 2024; Shahsavar, Kubeš, & Baran, 2020).
- **E-commerce reflects a generational shift:** Younger users are driving the rise of eco-conscious online shopping behavior (Cauwelier et al., 2024).

Economic Implications



Key finding: Higher education and income are consistent predictors of sustainable behaviors.



While financial capability enables sustainable investments (Lü & Park, 2025), lower-income households often face economic barriers that limit their participation—despite high awareness levels (Sardianou & Nioza, 2015; Kotahwala, 2020).



Implication: Financial inclusion strategies—like subsidies, green bonds, and targeted education—are essential (Elgammal et al., 2024; Schaefer & Crane, 2005).

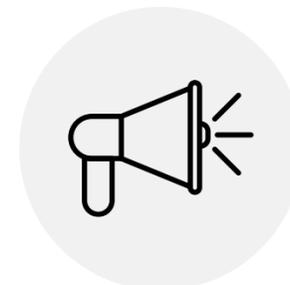
Health and Well-Being



Key finding: Environmental education builds awareness, but action is inconsistent due to the attitude-behavior gap.



Where sustainable habits are practiced (e.g., organic food, green spaces, active transport), health and well-being improve (Amiri et al., 2024; Alexander & Brooks, 2021).



Implication: Early environmental education doesn't just shape habits—it lays the foundation for better quality of life across generations (Liefländer & Bogner, 2014; Collett et al., 2024).

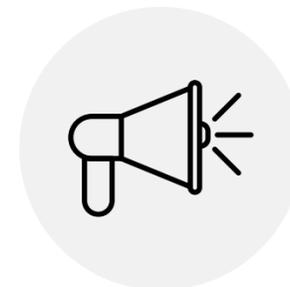
Family Dynamics



Key finding: Culture, social norms, gender, and age influence how sustainability spreads.



Women and Gen Y are key actors, often driving behavior change in households (Vincenzi et al., 2018; Shahsavar et al., 2020).



Implication: Family-centered and community-based programs can deepen and sustain behavioral shifts (Shiel et al., 2020; Kaplan & Haider, 2015).

Discussion

Demographics shape—but don't fully determine—sustainability behavior.

Gender, education, and income influence eco-actions, but economic constraints still limit participation for low-income groups, despite high awareness (Chekima et al., 2016; Kotahwala, 2020; Suhartanto et al., 2022).

The attitude-behavior gap remains a key barrier.

Positive environmental values don't always lead to action—especially in areas like e-waste recycling or green purchasing—due to cost, access, and convenience issues (Martinho et al., 2017; Pontes et al., 2024).

Culture, community, and early education drive long-term change.

Collectivist values, social influence, and future-oriented thinking strengthen pro-environmental habits. Starting sustainability education early builds lifelong behaviors (Shiel et al., 2020; Liefländer & Bogner, 2014).

Limitation & Future Questions

How does access to sustainable options reshape behavior across income groups?

What mental health benefits result from sustainable living?

Which psychological factors most influence sustainable action?

Many studies relied on participants' self-assessments, increasing the risk of social desirability bias. Psychological drivers and intersectional demographics are underexplored. Future research should include longitudinal and regionally diverse studies.

Thank you!

Do you have any questions?

Methodological Framework

Overview	Proponents
<ul style="list-style-type: none">• Systematic Literature Review (SLR): A structured method to synthesize existing evidence, ensuring transparency and minimizing bias.• PRISMA 2020 Model: A standardized framework to report systematic reviews through identification, screening, eligibility, and inclusion stages.• Content Analysis: Used to code and categorize themes such as demographic factors, sustainability cognition, and educational interventions.	<ul style="list-style-type: none">• Pati & Lorusso (2017); Nguyen & Singh (2018)• Moher et al. (2015); Baker & Weeks (2023)• (Implied—methodological approach)