The blue-pink spectrum of sustainability

Filiz Eroğlu[1]

1 Business Administration Department, Çanakkale Onsekiz Mart University, Biga Faculty of Economics and Administrative Sciences, Çanakkale, Türkiye

DOI: https://doi.org/10.56293/IJMSSSR.2025.5919

IJMSSSR 2025
VOLUME 7
ISSUE 6 NOVEMBER - DECEMBER **ISSN: 2582 – 0265**

Abstract: Sustainable consumption awareness and habits constitute one of the critical factors for a sustainable world and development. In the formulation of appropriate policies, the findings of scientific studies addressing the sustainability phenomenon from various aspects are of paramount importance. This research, which examines young consumers' sustainability awareness, behavior, and intentions within the context of gender, subjected the data collected via surveys from 207 Turkish university students to Independent Samples T-Test. The results revealed no significant difference based on gender regarding sustainable consumption awareness. However, contrary to expectations, in the dimensions of reuse and reduce within sustainable consumption behavior and intention, the mean scores of male consumers were higher than those of female consumers, although this difference was not statistically significant. In the recycle and reconsider dimensions, a significant difference was found in favor of female consumers, which aligns with expectations. These findings contribute to the expansion of the relevant theory and will provide guidance in the development of sustainability-related policies in both the public and private sectors.

Keywords: Sustainable consumption awareness, sustainable consumption behavior and intention, young consumers, gender.

1. Introduction

Thiele (2024) asserts that the term sustainability originates from the Latin root, *sustinere*, which fundamentally conveys the literal meaning of holding up. Consequently, a core characteristic of something deemed sustainable is its capacity for endurance, persistence, or maintaining its integrity over an extended temporal span. Although numerous definitions of sustainability exist, each centered on a distinct focus, the definition formulated by Brundtland Commission, formally the World Commission on Environment and Development, is widely acknowledged as the foundational conceptualization and the most frequently referenced definition within the literature, as; "Sustainable development is development that meets the needs of the present without compromising the ability to future generations to meet their own needs." (UN Brundtland Commission, 1987). Elevated public consciousness concerning environmental disruption has driven an intensified focus on the concept of sustainability, especially since the early twenty first century. Previously, sustainability was exclusively understood to mean the sustainability of the environment. However, as can be inferred from the definition, the view that sustainability is a more comprehensive concept with the potential for multiple dimensions became widely accepted. As a result, there has been a noticeable establishment of systems that can ensure sustainability not only environmentally, but also across the social and economic dimensions.

It is observed that sustainability has been investigated in the literature from various perspectives and in the context of different fields since the 1980s. While evaluating the outputs produced by human beings and the units/systems they establish and manage is undoubtedly crucial for the desired realization of sustainability in practice, the importance of understanding how people perceive sustainability, both as citizens and consumers, must be emphasized. While people's demographic profiles are significant in their perception of the sustainability issue, gender stands out as a fundamental factor causing differences in many respects. The assumption that women possess an inherent relationship with nature and environmental protection due to their natural and biological structures geared toward production has been explored in numerous studies (Tyagi, 2024; Brough et al., 2016; MacGregor, 2006); however, one underlying reason for the view that women exhibit greater environmental

sensitivity than men is the paucity of research focusing on men's relationship with the environment. Since the 1980s, research on gender and the environment has expanded its scope to incorporate men, the dynamics through gender, and the exploration of more complex viewpoints concerning women across distinct cultural, societal, and ecological settings.

For both individual and corporate sustainability measures to be effectively implemented, it is prerequisite to first understand the public's perception and attitudes toward sustainability. In this context, it is crucial to research the role of gender as a potential player contributing to variations in perception and attitudes. Specifically, there is significant importance in determining whether male and female consumers differ meaningfully in their perception of and attitudes towards sustainability. Furthermore, it is essential to delineate the specific dimensions and topics across which these differences, if any, manifest. Establishing these differences is vital for developing targeted and effective communication strategies and policy interventions aimed at enhancing overall sustainability engagement. Additionally, research consistently suggests that the current youth cohort demonstrates diminished environmental concern relative to older populations (Hwang & Griffiths, 2017; Fien et al., 2008), contrary to Yamane and Kaneko (2021), who suggest that the younger generation is generally characterized as being more socially conscious and supportive of the Sustainable Development Goals (SDGs) than the older generation. Given that this demographic is poised to assume critical decision-making roles in the near future, identifying and characterizing gender-based variances will significantly aid in comprehending their attitudinal and behavioral dynamics. Although the existing literature features studies investigating sustainability from a gender perspective, a notable research gap is observed concerning the examination of this topic especially among Turkish consumers.

Consequently, this research aims to address this gap by exploring gender-based differences in sustainability awareness, intentions and behaviors specifically among young Turkish consumers. The present study essentially focused on the environmental dimension of sustainability, excluding the social and economic dimensions from its scope. In other words, this research will delineate how sustainable consumption manifests in Türkiye through the lens of differences observed between “pink” female and “blue” male young consumers.

2. Literature Review

2.1. Sustainability perception regarding the environmental dimension

Sustainability functions as a highly effective boundary term, capable of uniting diverse groups under a shared, broad agenda. The initial European appearance of the word sustainability is documented in 1713 in Hans Carl von Carlowitz's German work, Sylvicultura Oeconomica. This conceptualization was later integrated into French and English forestry practices, facilitating the transition to sustained-yield forestry through systematic tree planting (Heinberg, 2010). Originating from eighteenth-century German forest management, the concept gained unparalleled global significance in the 1980s and 1990s, forming a unique coalition across governments, civil groups, academia, and business. Regardless of individual actors' lack of consensus or detailed technical understanding, the boundary work performed by the term successfully generated crucial momentum for innovation, political mobilization, and policy change. This effect was particularly pronounced in the lead-up to the 1992 UN Conference on Environment and Development (UNCED) in Rio (Scoones, 2010).

Sustainability lacks a simple, universally agreed-upon definition, as its conceptualization is subject to varying perspectives arising from the ideological, disciplinary, axiological, topical, and philosophical contexts of its consideration. Although often narrowly defined by waste and resource reduction, sustainability is fundamentally a more challenging and rewarding endeavor that compels a deeper ethical responsibility for the resilience of ecological, social, economic, and cultural support systems (Thiele, 2024), and sustainable development, as cited by Prado and Moraes (2020) from Santana (2018), aims to transform citizens' consumption and production behaviors and habits. This concept is fundamentally anchored in the three core elements of sustainability: Economic, environmental, and social. The principle is that the concept of sustainability underpins sustainable development, and concurrently, the initiatives taken within sustainable development serve to elevate public awareness and engagement with sustainability. It is expressed that sustainable development is defined as the process of enhancing the quality of life while ensuring that human activities remain within the limits of the supportive ecological systems' carrying capacity (Caring for the Earth, 1991).

The increasing global focus on sustainability -rooted in the commitment to secure a viable future for succeeding generations- is catalyzed by severe negative projections regarding crucial issues like water scarcity and hunger, coupled with natural disasters (e.g., floods and droughts) and disruptive ecological changes across land, oceans, and glaciers, all linked to current climate change. Arora (2018) highlights environmental sustainability as a critical global issue. The long-term viability of natural resources is fundamentally threatened by the concurrent rise in population figures and human-induced activities.

The human being is the principal agent responsible for achieving sustainability. Individuals play a fundamental role in realizing sustainability, acting both as consumers and as the developers and operators of institutions and systems. Although global awareness efforts have informed most people about the sensitivity and importance of environmental sustainability, they frequently fail to exhibit the necessary pro-environmental behaviors. Unsustainable behavior may be driven by contrasting factors based on socio-economic status. In low-income settings, the core driver is the survival imperative enforced by poverty, which mandates policy prioritizing increased per capita income and fundamental infrastructure. Conversely, unsustainability in affluent groups stems from apathy, ignorance, and systemic wasteful consumption incentives (Caring for the Earth, 1991: 52).

The level of awareness regarding sustainability is as critical as the subsequent translation of this awareness into actual behavior. In this context, several general habits -such as water conservation and switching off unused electricity- are examined, alongside specific behaviors considered exemplary of sustainable consumption practices. These exemplary practices include the adoption of energy-efficient lighting (e.g., LED/CFL bulbs) and the preference for environmentally friendly packaging or organic products. Therefore, the investigation of sustainable consumption behaviors constitutes a vital tool, even without explicitly revealing sustainability awareness or attitudes toward sustainability.

2.2. Gender differences in sustainable consumption

The pertinent interest among Western feminist scholars concerning the relationship between environmental issues and their theories with gender has intensified significantly since the 1980s (Goebel, 2023; MacGregor, 2006). Godin and Langlois (2021), citing Elliott (2013), highlight that while green consumption can symbolize women's caregiving roles, green marketing efforts primarily targeting women inadvertently reinforce the gendered division of labor. They maintain that this reinforcement is crucial, as the unequal distribution of domestic tasks, linked to rigid gender norms, generates a 'time squeeze' that significantly impedes the adoption of sustainable consumption practices. Bloodhart and Swim (2020) similarly stated that gender differences are evident not only in the quantity and type of sustainable consumption but also in how gender stereotypes and social norms shape the ways women and men conceptualize the issue, respond to its necessity, and prioritize their courses of action.

Research on gender concerning sustainability awareness and the reflection of sustainability in behaviors has demonstrated that women exhibit higher scores. A widely recognized finding in the consumer behavior literature indicates that women exhibit greater concern than men regarding both social issues (Eagly et al., 2004) and environmental matters (Kennedy & Kmec, 2018; Gifford & Nilsson, 2014; Koos, 2011; Zelezny et al., 2000). Brough et al. (2016) suggested that green consumers are often perceived as more feminine, and consequently, men believe that engaging in green consumption behavior might undermine their masculinity. Another study that approached the topic through the lens of identity-based motivation theory revealed that consumers' self-perception -as either an individual or a member of a group- alters their propensity for sustainable consumption. Specifically, when the individual identity was salient, female consumers achieved higher scores; however, when the identity as part of a group was salient, male consumers' scores rose to the level of female consumers (Pinto et al., 2014).

Luchs and Mooradian (2012) asserted that research into the roots of sustainable consumer behavior consistently reveals a robust “gender factor”; women are more likely than men to show concern regarding the wider impacts of consumption and to translate these concerns into action. Furthermore, they found that gender differences in the perceived importance of sustainability were mediated by the personality trait of agreeableness. The study findings by Nichols and Holt (2023) demonstrated that attitudes toward sustainability, and the extent to which consumers perceive sustainability as crucial, are more positive among younger consumers and women.

Women were found more likely than men to consume sustainably regarding Swedish families (Isenhour & Ardenfors, 2009). Prado and Moraes (2020) show there is a more positive influence and intensity in the organics' buying by women. Khan and Talluri (2023) reported in their study that while women exhibited a higher level of sustainability consumption awareness than men, this difference was not statistically significant. Following an exploration of consumer awareness in terms of environmentally sustainable products and an investigation into how gender affects satisfaction levels, Babitha (2024) concluded that gender is a significant determinant in both consumer awareness and satisfaction with eco-friendly products. Research focusing on product reuse has established that sustainable consumption behavior varies across genders, demonstrating that women exhibit a higher propensity for both sustainable consumption behavior and product reuse compared to men (Bulut et al., 2017). Tyagi (2024) found that females exhibited slightly more positive attitudes towards sustainable products compared to males, although the results did not reach statistical significance. Setiawan et al. (2023) found that there is a significant difference between male and female students regarding environmental knowledge in favor of female students.

In conclusion, numerous studies have established that female consumers exhibit a greater inclination toward and awareness of sustainable consumption compared to their male counterparts. However, regarding the effect of generational cohorts on sustainable consumption, divergent discourses have been observed in the literature. Building upon this premise, the following hypotheses have been formulated for young consumers:

H_1: Young female consumers exhibit a significantly higher level of sustainable consumption awareness compared to young male consumers.

The second group of hypotheses was established based on the four dimensions of the sustainable consumption behavior and intention scale developed by Çelebi and Ekici (2025): Recycle, reuse, reconsider, and reduction.

H_{2a}: Young female consumers exhibit a significantly higher propensity for recycle compared to young male consumers.
H_{2b}: Young female consumers exhibit a significantly higher propensity for reuse compared to young male consumers.
H_{2c}: Young female consumers exhibit a significantly higher propensity for reconsider compared to young male consumers.
H_{2d}: Young female consumers exhibit a significantly higher propensity for reduce compared to young male consumers.

3. Methodology

The approach used in the study is a quantitative approach with an online survey design. Total of 207 students (*M* age: 20.3), reached through convenience sampling and studying at a university in Türkiye participated in the study. The sample consisted of 107 female and 100 male students.

To measure sustainable consumption behavior and intention, a total of 18 items were employed from the Sustainable Consumption Behavior and Intention Scale (SuCBIS), which was developed by Çelebi and Ekici (2025) and whose validity and reliability were established using data obtained from Turkish consumers. While the original scale comprises five dimensions, the 'rot' dimension was not included in the scope of the present study by the researcher. Consequently, the scale employed in this study comprises four sub-dimensions: "Recycle", "Reuse", "Reconsider" and "Reduce". The Recycle dimension of the sustainable consumption scale operationalizes the extent to which consumers prioritize the ecological characteristics of products at the point of purchase and actively participate in post-consumption waste management (e.g., *I pay attention to ensuring that the products I purchase are recyclable*). The Reuse dimension of the scale focuses on the consumer's behavioral tendency and capacity for extending the lifecycle of products through creative application and restorative action (e.g., *I repair broken or malfunctioning products and use them again*). The Reconsider dimension assesses the crucial cognitive and reflective processes that underpin sustainable consumption. It is designed to measure the consumer's inclination to critically evaluate their existing consumption patterns and their resulting environmental and social impact (e.g., *I behave consciously, being aware of the impact of my consumption choices*). The Reduce dimension measures the consumer's active strategy to minimize the demand for new resource extraction and production by prioritizing alternatives to

brand-new goods. This is achieved through practices that increase the usage efficiency and lifespan of existing items (e.g., *I purchase second-hand items*).

Environmental awareness of the participants was measured with "The Environmental Awareness Scale" developed by Morgil et al. (2004), including 13 statements (e.g., *When buying aerosol deodorants, the ones that contain fewer damaging gases should be preferred,* or *The usage of natural gas should increase*). Participants will indicate their assessment on a 5-point Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), by selecting the level they deem appropriate for themselves in both scales. The necessary data for conducting the hypothesis-testing analyses were collected via an online survey administered between October 15, 2025, and October 20, 2025, and analyzed via SPSS 22 program.

4. Analysis and the Results

4.1. Reliability, normality and homogeneity

Cronbach's alphas were calculated to assess reliability of the scales, and all scales have good reliability. Cronbach's alphas for the dimensions of sustainable consumption behavior and intention as recycle, reuse, reconsider, reduce are respectively 0.81, 0.79, 0.85 and 0.80; and for environmental awareness scale is 0.85. The data are normally distributed and homogeneous, based on the results of the Kolmogorov-Smirnov test for normality (Sig. >0.05) and Levene's test for homogeneity of variances (Sig. >0.05).

4.2. Independent Samples T-test Analysis

Initially, the results of an independent-samples t-test conducted to determine whether there is a significant difference in sustainable consumption awareness based on gender are presented in Table 1.

Table 1 Independent Samples t-Test Results for SCA

SCA	Gender	N	Mean	t	df	Sig.
SCA	Female	107	4.1927	1.6109	2508	**0.126**
	Male	100	4.1340			

SCA: Sustainable Consumption Awareness

As shown in Table 1, although the mean score for sustainable consumption awareness (SCA) among young female consumers (M=4.1927) was higher than that of young male consumers (M=4.1340), this difference was not statistically significant (p=0.126> 0.05). Therefore, Hypothesis H1 was not supported.

Subsequently, the hypotheses regarding whether the four dimensions of sustainable consumption behavior and intention show a significant difference based on gender were tested. The results are presented in Table 2.

Table 2 Independent Samples t-Test Results for SuCBIS

SuCBIS	Gender	N	Mean	t	df	Sig.
Recycle	Female	107	4.0003	2.837	2315	**0.003**
	Male	100	3.8572			
Reuse	Female	107	4.2013	-1.047	2561	**0.309**
	Male	100	4.2347			
Reconsider	Female	107	4.2970	3.255	2469	**0.000**
	Male	100	4.0007			
Reduce	Female	107	3.4166	-1.477	2351	**0.168**
	Male	100	3.4970			

SuCBIS: Sustainable Consumption Behavior and Intention Scale

In the recycle dimension, the mean score for young female consumers (M=4.0003) was found to be higher than that of young male consumers (M=3.8572), and this difference was statistically significant (p=0.003 < 0.05). Thus, hypothesis H_{2a} was supported. In the reuse dimension, the mean score for young male consumers (M=4.2347) was higher than that of young female consumers (M=4.2013); however, this difference was not statistically significant (p=0.309 > 0.05). Consequently, hypothesis H_{2b} was not supported. For the reconsider dimension, the mean score for young female consumers (M=4.2970) was higher than that of young male consumers (M=4.0007), and the difference was statistically significant (p=0.000 < 0.05), leading to the support of hypothesis H_{2c}. Finally, in the reduce dimension, the mean score for young male consumers (M=3.4970) was higher than that of young female consumers (M=3.4166); yet, since the difference was not found to be statistically significant (p=0.168 > 0.05), hypothesis H_{2d} was not supported.

4.3. Discussion

The results of the analyses revealed that some of the preliminary hypotheses were supported, while others were not. Although the expectation that sustainable consumption awareness would be higher among female consumers was supported, the difference observed was not substantial. This finding contradicts the results of the majority of the studies reported in the literature (Babitha, 2024; Nichols & Holt, 2023; Setiawan et al., 2023; Luchs & Mooradian, 2012) and through specific discourses (Brough et al., 2016). However, this finding is congruent with the results presented by Khan and Talluri (2023) and Tyagi (2024). A key finding here is the high score obtained by both male and female young consumers, as young consumers, consistent with the findings of Yamane and Kaneko (2021), Nichols and Holt (2023), and Tyagi (2024) who addresses the topic as attitudes toward sustainable consumption.

The intention and behavior aspects of sustainable consumption were investigated within the context of recycle, reuse, reconsider, and reduce dimensions. In the research findings, the expectation was again that female consumers would obtain higher scores. However, in the reuse and reduce dimensions, male consumers' scores were found to be higher, though not statistically significant. Female consumers achieved higher scores, with a statistically significant difference, only in the recycle and reconsider dimensions. It was observed that the reuse dimension received the highest scores, while the reduce dimension yielded the lowest scores.

The results generally present findings that contradict the common assumption that female consumers are significantly ahead of male consumers in terms of sustainable consumption awareness, intention, and behavior. Although sustainable consumption awareness was found to be high among male consumers, on the other hand, their intention and behavior were found to be significantly lower in certain dimensions. This suggests that while male consumers are knowledgeable about sustainable consumption, they may not actively reflect on it (reconsider dimension) and show a much lower tendency toward recycling behavior compared to female consumers.

5. Conclusion

The main purpose of this research is to expand our understanding of gender differences in sustainability awareness and behavior. Within this framework, the study investigated whether there was a statistically significant difference in sustainability awareness and behaviors between young male and female consumers. The extant literature on sustainability, when investigated in the context of gender, has consistently indicated that female consumers are generally more inclined toward sustainable consumption than their male counterparts. This tendency is attributed to women's biological makeup, as well as the socially constructed roles, norms, and stereotypes associated with gender in society. Consequently, women typically demonstrate a higher level of performance than men in terms of sustainability awareness, intention, and behavior. In line with the literature, and as articulated by Bloodhart and Swim (2020), not only are there measurable differences between women and men concerning the quantity and composition of sustainable consumption patterns, but entrenched gender stereotypes, norms, roles, and related practices fundamentally influence how individuals conceptualize the issue, respond to its urgency, and ultimately translate their awareness into action.

However, the present study surprisingly did not find significant differences between male and female consumers across the different dimensions of sustainable consumption favoring female consumers, contrary to the claims

made in the literature. It is plausible that a shift is currently taking place in the gender-related societal norms and stereotypes impacting the new generation. Consequently, it would be beneficial for future research examining sustainability in the context of gender to investigate this specific point of change. Besides that, in the faculty where the data was collected, intensive seminars and meetings related to sustainability are frequently held, and both male and female students are integrated into sustainability-focused projects. The reason for the absence of significant differences favoring female consumers in some of the findings might be the general awareness created among the students. It will be important to demonstrate the efficacy of such educational interventions through experimental studies based on a pre-test and post-test design.

Regarding the reuse dimension, where male consumers exhibited higher scores, the continued utilization of worn-out or aged products, or the repair of broken items for renewed use, might not be as appealing to female consumers who may have a higher interest in new, fashionable items. This potential explanation accounts for the lack of high scores among female consumers in this specific dimension. Future studies examining sustainable consumption within the context of gender would significantly contribute to the literature by investigating the mediating effect of variables such as the tendency to purchase new products or the adherence to fast fashion trends. The higher mean score obtained by male consumers in the reduction dimension can be correlated with a potential lack of positive attitudes among female consumers towards the use of second-hand goods and product exchange (swapping). Future research examining gender could investigate the influence of these aforementioned factors.

The current study focused on the sustainable consumption awareness and propensity of young consumers. Given their future role as influential decision-makers, understanding the tendencies and habits of young consumers is crucial for the public and private sectors in formulating effective strategies. In this study, the sustainable consumption propensity of young consumers was generally found to be above average. Notably, their level of awareness and their propensity for the 'reuse' dimension of sustainability were observed to be high. The high level of awareness is a positive outcome, indicating that a significant stage in translating sustainability into intention and behavior has been achieved. The high propensity for reuse may signal a consciousness toward conservative methods, such as repairing products or finding alternative uses for them, rather than purchasing new items every time, and future research is specifically recommended to investigate this dimension.

As humanity increasingly confronts issues such as the depletion of vital resources, and the threats of thirst and hunger, the significance of sustainability will continue to grow. Consequently, the findings of studies examining this phenomenon across various dimensions will become even more valuable for comprehending the issue and formulating effective strategies. This study, which investigated the environmental dimension of sustainability, scrutinized the sustainable consumption awareness, intentions, and behaviors of young female and male consumers. It is hoped that the results, including both findings congruent with and contradictory to the existing literature, will be further investigated in subsequent studies and will provide guidance for practitioners.

References

1. Arora, N.K. (2018). Environmental sustainability - Necessary for survival. Environmental Sustainability, 1(1-2), https://link.springer.com/article/10.1007/s42398-018-0013-3
2. Babitha, B. (2024). Unveiling gender dynamics in consumer satisfaction with eco-friendly products: A Study of Customer Awareness and Preferences. ANWESH: International Journal of Management & Information Technology, 9(1), 12-16.
3. Bloodhart, B. & Swim, J.K. (2020). Sustainability and consumption: What's gender got to do with ıt? Journal of Social Issues, 76(1), 101-113. https://doi.org/10.1111/josi.12370
4. Brough, A.R., Wilkie, J.E.B., Ma, J., Isaac, M.S. & Gal, D. (2016). Is Eco-Friendly unmanly? The green-feminine stereotype and its effect on sustainable consumption. Journal of Consumer Resaerch, 43(4), 567-582. https://doi.org/10.1093/jcr/ucw044
5. Bulut, Z.A., Çımrin, F.K. & Doğan, O. (2017). Gender, generation and sustainable consumption: Exploring the behaviour of consumers from Izmir, Turkey. International Journal of Consumer Studies, 41(6), 597-604. https://doi.org/10.1111/ijcs.12371
6. Caring for the Earth (1991). Caring for the Earth: A strategy for Sustainable Living. Published in partnership by IUCN, UNEP, WWF. Gland, Switzerland. https://portals.iucn.org/library/node/6439

7. Çelebi, M.E. & Ekici F.T. (2025). The development of the sustainable consumption behavior and intention scale. International Journal of Assessment Tools in Education, 12(4), 1016-1033. https://doi.org/10.21449/ijate.1479112
8. Eagly, A. H., Diekman, A. B., Johannesen-Schmidt, M. C. & Koenig, A. M. (2004). Gender gaps in sociopolitical attitudes: A social psychological analysis. Journal of Personality and Social Psychology, 87, 796-816.
9. Elliott, R. (2013). The taste for green: The possibilities and dynamics of status differentiation through "green" consumption. Poetics, 41(3), 294-322. https://doi.org/10.1016/j.poetic.2013.03.003
10. Fien, J., Neil, C. & Bentley, M. (2008). Youth can lead the way to sustainable consumption. Journal of education for sustainable development, 2(1), 51-60. https://doi.org/10.1177/097340820800200111
11. Gifford, R. & Nilsson, A. (2014). Personal and social factors that influence pro-environmental concern and behaviour: A review. International Journal of Psychology, 49(3), 141-157. https://doi.org/10.1002/ijop.12034
12. Godin, L. & Langlois, J. (2021). Care, gender, and change in the study of sustainable consumption: A critical review of the literature. Frontiers in Sustainability. 2, 725753. https://doi.org/10.3389/frsus.2021.725753
13. Goebel, A. (2003). Women and sustainability: What kind of theory do we need?. Canadian Woman Studies, 23(1), 77-84. https://cws.journals.yorku.ca/index.php/cws/article/view/6361/5549
14. Heinberg, R. (2010). What is sustainability? The post carbon reader series: Foundation concepts, Post Carbon Institute: CA, USA.
15. Hwang, J. & Griffiths, M. A. (2017). Share more, drive less: Millennials value perception and behavioral intent in using collaborative consumption services. Journal of Consumer Marketing, 34(2), 132-146. https://doi.org/10.1108/JCM-10-2015-1560
16. Isenhour, C. & Ardenfors, M. (2009). Gender and sustainable consumption: Policy implications. International Journal of Innovation and Sustainable Development, 4(2-3), 135-149. https://doi.org/10.1504/IJISD.2009.028068
17. Kennedy, E.H. & Kmec, J. (2018). Reinterpreting the gender gap in household pro-environmental behaviour. Environmental Sociology, 4(3), 299-310. https://doi.org/10.1080/23251042.2018.1436891
18. Khan, J.M. & Talluri, V. (2023). Uncovering The Influences on Sustainable Consumer Choices: A study of gender, age, and green product awareness. Journal of Nonlinear Analysis and Optimization, 14(1), 261-275.
19. Koos, S. (2011). Varieties of environmental labeling, market structures, and sustainable consumption across Europe: A comparative analysis of organizational and market supply determinants of environmentallabeled goods. Journal of Consumer Policy, 34, 127-151.
20. Luchs, M.G. & Mooradian, T.A. (2012). Sex, personality, and sustainable consumer behaviour: Elucidating the gender effect. Journal of Consumer Policy, 35, 127-144. https://doi.org/10.1007/s10603-011-9179-0
21. MacGregor, S. (2006). Beyond mothering earth: Ecological citizenship and the politics of care. Vancouver: UBC Press.
22. Morgil, İ., Arda, S., Seçken, N., Yavuz, S. & Özyalçın Oskay, Ö. (2004). The influence of computer-assisted education on environmental knowledge and environmental awareness. Chemistry Education: Research and Practice, 5(2), 99-110.
23. Nichols, B.S. & Holt, J.W. (2023). A comparison of sustainability attitudes and intentions across generations and gender: A perspective from U.S. consumers. Management Letters / Cuadernos de Gestión, 23(1), 51-62. http://www.ehu.eus/cuadernosdegestion/revista/es
24. Pinto, D.C., Herter, M.M., Rossi, P. & Borges, A. (2014). Going green for self or for others? Gender and identity salience effects on sustainable consumption. International Journal of Consumer Studies, 38(5), 540-549. https://doi.org/10.1111/ijcs.12114
25. Prado, N.B. do & Moraes, G.H.S.M. de (2020). Environmental awareness, consumption of organic products and gender. Revista de Gestão, 27(4), 353-368. https://www.emerald.com/insight/2177-8736.htm
26. Santana, L.N. (2018). Desenvolvimento sustentavel e educação: Dialogo possıvel e necessario. Interfaces Cientificas- Educação, 6(2), 45–52. Universidade Tiradentes.
27. Scoones (2010). Sustainability, development in practice, 17(4-5), 589-596. https://doi.org/10.1080/09614520701469609

28. Setiawan, H., Kusnadi, K., Surtikanti, H.K. & Riandi, R. (2023). Gender differences and the correlation of environmental knowledge with sustainability awareness after ESD-PjBL implementation. JPBI (Jurnal Pendidikan Biologi Indonesia), 9(3), 371-386. https://doi.org/10.22219/jpbi.v9i3.26049
29. Thiele, L.P. (2024). Sustainability. Polity Press, Third Edition, Cambridge, UK.
30. Tyagi, V.K. (April 2024). Gender dynamics in sustainable consumption: An empirical study. Available at SSRN: https://ssrn.com/abstract=4801766 or http://dx.doi.org/10.2139/ssrn.4801766
31. UN Brundtland Commission (1987). https://www.are.admin.ch/en/1987-brundtland-report
32. Yamane, T. & Kaneko, S. (2021). Is the younger generation a driving force toward achieving the sustainable development goals? Survey experiments. Journal of Cleaner Production, 292. https://doi.org/10.1016/j.jclepro.2021.125932
33. Zelezny, L. C., Chua, P.P. & Aldrich, C. (2000). Elaborating on gender differences in environmentalism. Journal of Social Issues, 56, 443-457.