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Towards sustainable consumption: The role of knowledge, environment, and promotion for the millennial generation

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Abstract
The millennial generation plays a crucial role in consumer decision-making and has great potential in driving the transformation towards more sustainable consumption patterns. This research investigates how environmental knowledge, environmental influences, and promotion of sustainable consumption affect the intentions and behaviours of sustainable consumption among the millennial generation. To test this framework, this study employed a quantitative research approach by conducting an online survey to collect data from millennial respondents, with a total sample of 155 individuals. This study used Structural Equation Modelling to test the proposed hypotheses. The findings of this study indicate that the level of environmental knowledge, environmental influences, and the effectiveness of promotion of sustainable consumption have a significant impact on consumer's intention to adopt sustainable consumption behaviours, which in turn are related to actual actions in sustainable consumption. The results of this research provide in-depth insights into how elements such as knowledge, social environment, and promotion can act as drivers or barriers for the millennial generation in adopting more sustainable consumption patterns. The implications of these findings have great potential in shaping more effective strategies and campaigns to promote sustainable consumption behaviours among the millennial generation while also increasing awareness of pressing environmental issues.

Keywords:
behaviour intention; environmental influences; environmental knowledge; promotion of sustainable consumption; sustainable consumption behaviour.

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Introduction

The United Nations (UN) has set 17 sustainable development goals (SDGs) to be achieved by 2030. The SDGs have become a global framework that serves as a guide to achieving sustainability in various aspects of life. One of the goals is to shift existing consumption and production patterns and encourage sustainable consumption, particularly by providing relevant information and raising awareness about sustainability and eco-friendly lifestyles (Francis & Sarangi, 2022; United Nations, 2022). Achieving these goals and changing the paradigm towards responsible consumption behaviour is critical in addressing the challenges arising from unsustainable consumption patterns in various countries, including Indonesia (Yildirim, 2020; Fitriani et al., 2021).

Indonesia is a country with a surge in irresponsible consumption over the last few decades. Data indicates that Indonesia ranks among the largest food waste producers globally, following Saudi Arabia and the United States (UNEP, 2021). Putri (2023) and Resnick et al. (2022) revealed that there is a change in Indonesia's food waste, which reaches 23-48 million tons per year or the equivalent of 115-184 kilograms per capita per year. This food waste continued from 2000 to 2019, impacting various sectors, including the economy and society. The country experiences an economic loss of IDR 213-551 trillion annually, equivalent to 4-5% of Indonesia's Gross Domestic Product (GDP). Socially, the energy loss from food waste is equivalent to the food intake for 61-125 million people or 29-47% of Indonesia's total population. Ironically, despite Indonesia's significant food waste problem, the country still faces high levels of hunger, ranking third in Southeast Asia.

The involvement of the millennial generation is essential as their domination of the global population in tackling environmental issues (Lavuri, 2022). This generation tends to be more environmentally aware, wanting to contribute to positive change (Hanson-Rasmussen et al., 2018). It utilises digital skills to spread environmental awareness (Sogari et al., 2017). Additionally, they possess the power to influence consumption trends and choose environmentally friendly products, thereby driving the growth of sustainable economic sectors (Falke et al., 2022). However, the millennial generation has less knowledge in this endeavour, resulting in a relatively weak understanding of environmental knowledge (Saari et al., 2021), limited comprehension of the environmental influences they experience (Figueroa-García et al., 2018a), and a lack of prioritising sustainable consumption promotion in their digital activities (Piligrimiene et al., 2020).

Several previous studies have found a positive correlation between environmental knowledge and sustainable consumption behaviour, wherein a higher level of knowledge regarding environmental issues tends to be associated with more responsible consumption behaviour (Li et al., 2022;

Lionikiene & Poškus, 2019; Saari et al., 2021; Shimul & Cheah, 2023; Tan & Quang, 2023). Environmental influences, such as family, peers, personal experiences (Figueroa-García et al., 2018a; Huang et al., 2023; Lee et al., 2023; Sari & Muflikhati, 2018), and social media (Trivedi et al., 2018), also play a significant role in shaping the consumption intentions of the millennial generation. Understanding these factors can aid in designing more effective approaches to transform their consumption behaviour towards sustainability. Additionally, Piligrimiene et al. (2020) advocate the importance of promoting sustainable consumption to encourage responsible consumption behaviour. Through public campaigns, education, and other promotional efforts (Soares et al., 2020), the millennial generation can be influenced to make more sustainable consumption choices in their daily lives (Sousa et al., 2022).

Numerous studies have been conducted on sustainable consumption behaviour, such as Chen et al. (2022), Dimitrova et al. (2022), Falke et al. (2022), Francis & Sarangi (2022), Han (2020), Huang et al. (2023), Ramkissoon & Fekete-Farkas (2022), and Yildirim (2020). However, in the context of Indonesia, research on sustainable consumption behaviour is still limited to a few studies with different perspectives, such as the analysis of corporate communication in influencing consumer perceptions and behaviour (Tseng et al., 2021), sustainable food consumption behaviour (Nuh et al., 2023), and environmental values and engagement (Noor &Kuswati, 2023).

Based on this premise, this research confirms the role of environmental knowledge, environmental influences, and sustainable consumption promotion in driving sustainable consumption behaviour among millennials. This research is important in Indonesia, based on the country's environmental problems and the gap between millennials' pro-environmental attitudes and unsustainable consumption behaviour. While this generation tends to be more aware of environmental issues, has the desire to contribute to positive change, and utilises technology to spread environmental awareness, it has been found that they often fail to translate these attitudes into concrete actions in their daily lives (Heo & Muralidharan, 2017). Given millennials' huge impact on environmental conservation efforts, this gap between attitude and behaviour is important to understand and address.

This research highlights the importance of sustainable consumption promotion in solving the millennial generation's consumption problems. This research offers an innovative approach to addressing the gap between millennials' consumption attitudes and behaviours by emphasising sustainable consumption promotion. Through proper education, campaigns, and incentivisation, millennials can be encouraged to consistently make greener consumption choices. This research will make a significant contribution to developing effective strategies and interventions to encourage sustainable consumption behaviour change among millennials.

Literature review

Environmental knowledge, environmental influences, and promotion of sustainable consumption on sustainable consumption behaviour intention

Environmental knowledge refers to the information individuals possess about relevant environmental concepts, environmental problems, and the ecological impacts of consumption and production (Saari et al., 2021). Environmental knowledge plays a vital role in addressing environmental issues. When individuals deeply understand environmental issues and their impacts, they are more likely to cultivate a sense of responsibility towards the environment and make conscious choices that align with sustainable values (Asif et al., 2023). Some studies have shown that environmental knowledge does not directly influence behaviour but is an attitude modifier (e.g., Ghaffar & Islam, 2023; Zeng et al., 2023). The positive impact of environmental knowledge on sustainable consumption intentions has been supported by several studies (e.g., Alsaad et al., 2023; Asif et al., 2023; Bala et al., 2022; Shanmugavel & Balakrishnan, 2023; Zeng et al., 2023). Therefore, individuals with sufficient environmental knowledge are more likely to have the intention to adopt a sustainable lifestyle and engage in environmentally responsible consumption. Thus, this study proposes the following hypothesis.

H1a: Environmental knowledge positively influences sustainable consumption intention.

Environmental influences, such as family, peers, and social media, play a pivotal role in shaping the millennial generation's consumption behaviour. According to Figueroa-García et al. (2018a), environmental influences, particularly from family and peers, significantly impact the formation of sustainable consumption intentions through the values, norms, and experiences they provide. Social media also plays a crucial role in shaping millennials' attitudes and consumption behaviour. When consumers are exposed to shared environmental information on social media platforms that support green initiatives, their intention to purchase green products increases (Kang & Kim, 2017). Millennials are highly influenced by the Internet (Duffett, 2020), which leads them to utilise personalised and socially connected social media platforms that cater to their social needs (Sun & Xing, 2022). The positive impact of environmental influences on sustainable consumption intentions has been supported by several studies (Figueroa-García et al., 2018a; Huang et al., 2023; Lee et al., 2023; Sari & Muflikhati, 2018; Trivedi et al., 2018). Piligrimiene et al. (2020) affirm that environmental influences indirectly impact sustainable consumption behaviour. Thus, individuals residing in an environment that supports sustainability and environmental awareness are more inclined to adopt a sustainable lifestyle and engage in responsible consumption practices. Hence, the following hypothesis is proposed.

H2a: Environmental influences positively impact sustainable consumption intention.

Sustainable consumption promotion is a proactive effort to encourage and enhance consumer awareness and adopt more sustainable consumption patterns in the environmental and social context (Dimitrova et al., 2022). This process involves the implementation of campaigns, marketing strategies, and other initiatives aimed at changing consumers' perceptions, knowledge, and behaviours related to environmental and social challenges. Through sustainable consumption promotion, information about the impact of products and services on the environment and society is conveyed to consumers to urge them to make wiser and more responsible choices in meeting their needs (Radziszewska, 2019). Sousa et al. (2022) confirm the positive relationship between corporate green communication and green purchase intention. Furthermore, several studies (Dinh et al., 2023; Kumar & Pandey, 2023; Piligrimiene et al., 2020; Sousa et al., 2022; Tan & Quang, 2023; Wang & Udall, 2023; Xie & Madni, 2023; Yang & Chai, 2022) have asserted that sustainable promotion has an impact on the inclination towards sustainable consumption. Thus, this study proposes the following hypothesis.

H3a: Sustainable consumption promotion positively influences the intention for sustainable consumption.

Environmental knowledge, environmental influences, promotion, and sustainable consumption behavioural intention on sustainable consumption behaviour

Sustainable consumption behaviour is a crucial aspect of our modern society. It refers to consumer actions and decisions and actions when selecting products and services, taking into consideration the long-term environmental, social, and economic impacts. Individual consumption choices have consequences for the environment and society. Consumption choices drive to strive for wiser and more responsible actions in purchasing and consumption decisions (Dimitrova et al., 2022; Figueroa-García et al., 2018b). Previous studies have revealed a positive correlation between environmental knowledge and sustainable consumption behaviour, wherein a deeper understanding of environmental issues tends to be associated with more responsible consumption actions (Li et al., 2022; Lionikiene & Poškus, 2019; Saari et al., 2021; Shimul & Cheah, 2023; Tan & Quang, 2023). Additionally, environmental factors such as family, peers, personal experiences, and social media, also play a crucial role in shaping attitudes and behaviours towards sustainable consumption (Figueroa-García et al., 2018b; Huang et al., 2023; Lee et al., 2023; Sari & Muflikhati, 2018; Trivedi et al., 2018). Previous studies demonstrate that sustainable consumption promotion through campaigns,

marketing strategies, and other initiatives can positively enhance sustainable consumption behaviour (Dinh et al., 2023; Ghaffar & Islam, 2023; Radziszewska, 2019; Silberer et al., 2020; Sun & Xing, 2022; Xie & Madni, 2023). Lastly, sustainable consumption intention, which reflects individuals' determination to adopt more environmentally friendly consumption patterns, has been identified as a key factor influencing sustainable consumption behaviour (Dimitrova et al., 2022; Matharu et al., 2021). Hence, this study proposes the following hypothesis, which is important in understanding and promoting sustainable consumption behaviour.

H1b: Environmental knowledge positively impacts sustainable consumption behaviour.

H2b: Environmental influence positively impacts sustainable consumption behaviour.

H3b: Sustainable consumption promotion positively influences sustainable consumption behaviour.

H4b: Sustainable consumption intention positively influences sustainable consumption behaviour.

Sustainable consumption behavioural intention

The mediating effect of Sustainable Consumption Behaviour Intention (SCBI) has been a primary concern in studies investigating factors influencing sustainable consumption behaviour (Figueroa-García et al., 2018b). Several studies have identified a strong relationship between SCBI and sustainable consumption behaviour, with SCBI serving as a mediator between other factors and sustainable consumption behaviour (Dimitrova et al., 2022; Fitriani et al., 2021; Lavuri, 2022; Made et al., 2022; Panopoulos et al., 2023). This study interprets "intention for sustainable consumption behaviour" as an individual's inclination to engage in actions and consumption that are more sustainable, even at the cost of sacrifice or paying more (Saari et al., 2021). This construct of behavioural intention is often regarded as a mediator facilitating various desired outcomes. This study formulates three mediation hypotheses.

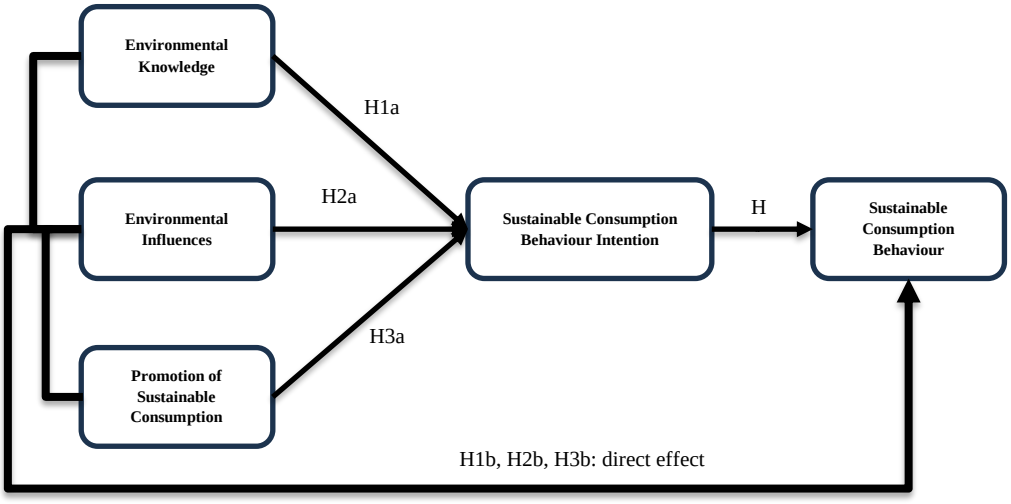
H1c: Sustainable consumption behaviour intention mediates the relationship between environmental knowledge and sustainable consumption behaviour.

H2c: Sustainable consumption behaviour intention mediates the relationship between environmental influence and sustainable consumption behaviour.

H3c: Sustainable consumption behaviour intention mediates the relationship between sustainable consumption promotion and consumption behaviour.

The research framework depicted in Figure 1 illustrates the relationships among environmental knowledge, environmental influences, the promotion of sustainable consumption, sustainable consumption behaviour intention, and sustainable consumption behaviour. The model hypothesises that environmental knowledge, environmental influences, and the promotion of sustainable consumption have a direct effect (H1a, H2a, H3a) on sustainable consumption behaviour intention. This intention, in turn, directly impacts sustainable consumption behaviour (H4). Additionally, the framework suggests that environmental knowledge, environmental influences, and the promotion of sustainable consumption also have direct effects (H1b, H2b, H3b) on sustainable consumption behaviour, indicating multiple pathways through which these factors influence sustainable consumption outcomes.

Figure 1.
Research framework



Source: Authors' work (2024)

Research method

This study conducts an explanatory study using an online survey to collect data and test hypotheses. The survey instrument is designed to gather data on five research variables. Measurement items are taken from previous studies and slightly modified to fit this research. Environmental knowledge is measured using seven items adopted from Saari et al. (2021) and Shimul & Cheah (2023). Environmental influences are measured using seven items adopted from Figueroa-García et al. (2018) and Trivedi et al. (2018). Promotion of sustainable consumption intention utilises four items from Piligrimiene et al. (2020). The four other items from Chen et al. (2022) are used to measure sustainable consumption behaviour intention. Furthermore, four items adopted from Dong et al. (2020) are used to measure sustainable

consumption behaviour. This study uses a five-point Likert scale (1 = strongly disagree, 5 = strongly agree) to measure respondents' responses.

Data and sample collection

This study employs a non-probability sampling method using the purposive sampling technique. The selected respondents are based solely on age, specifically, individuals aged between 18-40 years who are eligible to participate in this study by completing the questionnaire only once. Participation in this research is voluntary and conducted through an online survey using Google Forms. The data collection procedure was carried out from May to June 2023. The online survey method involved distributing a link to the Google Form via social media platforms and email, targeting the millennial generation in Tangerang. Respondents were provided with clear instructions on how to complete the questionnaire, and measures were taken to ensure that each respondent could only participate once. In total, 155 respondents completed the survey. To determine the appropriate sample size, the researcher referred to the study by Hair et al. (2019). This sampling method ensured the selection of a sufficient sample size for the research objectives. The study also categorised respondents based on gender, age, educational level, and occupation to analyse demographic influences on the outcomes.

Data analysis

The data analysis in this study utilises the software Smart PLS 3.0. This software is employed to assess the reliability, convergent validity, and discriminant validity of the constructs in this research, as well as to test the formulated hypotheses. The Partial Least Squares Structural Equation Modeling (PLS-SEM) method is chosen due to its suitability for handling non-normally distributed data (Chin et al., 2003). Furthermore, this method is well-suited for studies with relatively small sample sizes, such as this study involving fewer than 500 respondents (Hair et al., 2014).

Results

Demographic information

Detailed information regarding respondents' demographic profile is provided in Table 1. The total number of respondents involved in this study is 155 individuals, with a composition of approximately 47% females and 53% males. The majority of respondents, approximately 32%, fall within the age range of 22–30 years, while the remaining 68% fall within the age range of 31–40 years. Regarding education, approximately 78% of respondents have a bachelor's degree, with 15% holding a master's degree and 5% possessing a diploma. Only about 1% of respondents hold a doctoral degree. In terms of occupation, around 77% of respondents are employed, 18% are entrepreneurs, and 5% are unemployed.

Table 1.
Demographic characteristics of respondents

Variable	Categories	Percentage
Gender	Female	47%
	Male	53%
Age Range	22 - 30 years	32%
	31 - 40 years	68%
Education	Diploma	5%
	Undergraduate	78%
	Master	15%
	Doctoral	1%
Job	Jobless	5%
	Employed	77%
	Entrepreneur	18%

Source: Authors' work (2024)

Measurement model analysis

The measurement model analysis findings are reassuring, indicating that all items exceed the threshold loading value of 0.50, and cronbach's alpha (CA) values are greater than 0.70 for all constructs. The composite reliability (CR) values are greater than 0.70, and the average variance extracted (AVE) values exceed the threshold of 0.50 (Byrne, 2016; Hair et al., 2019). The threshold value of rho_A indicates values greater than the recommended value of 0.70 (Appendix 1), which is suitable for composite reliability (Jung & Park, 2018). This confirms that convergent validity, a key aspect of our study, has been successfully achieved.

Table 2 presents the discriminant validity evaluated based on the criteria of Fornell & Larcker (1981) and the Heterotrait-Monotrait (HTMT) ratio (Henseler et al., 2015). The findings indicate that the square root of the average variance extracted (AVE) for each construct is higher than its correlation with any other construct, demonstrating discriminant validity. This study also considered the HTMT ratio for a more robust discriminant validity assessment. The results show that the discriminant validity does not violate the recommended HTMT value of 0.85 (Kline, 2016), indicating no multicollinearity issues among the construct items.

In addition, the model's robustness for measuring standardised root mean square residual (SRMR) is considered an indicator of model fit. The results show that an SRMR value of 0.05 signifies a satisfactory fit (Henseler & Sarstedt, 2013). Henseler et al. (2016) reported SRMR as a fit measure for PLS-SEM, which is used to avoid model misspecification. SRMR is an absolute fit measure defined as the standardised difference between observed and predicted correlations. A value less than 0.08 is considered a good fit (Pavlov et al., 2021).

Table 2.
Discriminant validity

Criteria	EI	EK	PS	SCB	SBI
Fornell-Larcker Criterion					
EI	0.897				
EK	0.659	0.895			
PS	0.634	0.632	0.873		
SCB	0.841	0.862	0.679	0.839	
SBI	0.637	0.595	0.663	0.703	0.926
Heterotrait-Monotrait Ratio (HTMT)					
EI					
EK	0.685				
PS	0.679	0.679			
SCB	0.671	0.667	0.769		
SBI	0.667	0.623	0.716	0.780	

The square root of the AVE (Average Variance Extracted) for each construct is presented on the diagonal. The constructs and their corresponding abbreviations are as follows: EI, Environmental Influences; EK, Environmental Knowledge; PS, Promotion of sustainable consumption; SCB, Sustainable Consumption Behaviour; SBI, Sustainable consumption behaviour intention.
Source: Authors' work (2024)

Structural model assessment

The analysis of collinearity, known as variance inflation factors (VIF), is evaluated as an effective alternative method to identify multicollinearity issues. The results of the collinearity tests and VIF values for each construct are presented in Table 3.

Table 3.
Path coefficients

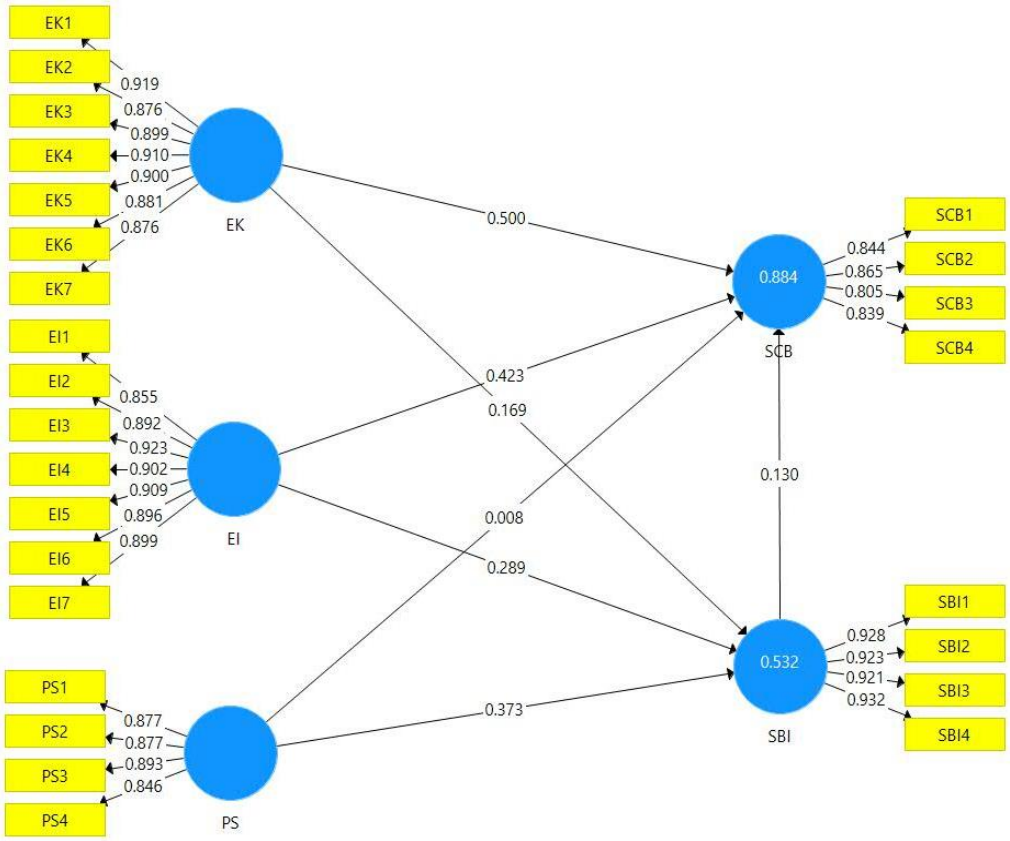
Hypothesis relationship		Beta	SD	t-value	p-value	VIF	Decision
H1a	EK → SBI	0.169	0.077	2.190	0.029	2.046	Accepted
H2a	EI → SBI	0.289	0.091	3.181	0.002	2.053	Accepted
H3a	PS → SBI	0.373	0.068	5.471	0.000	1.934	Accepted
H1b	EK → SCB	0.500	0.039	12.811	0.000	2.107	Accepted
H2b	EI → SCB	0.423	0.046	9.240	0.000	2.231	Accepted
H3b	PS → SCB	0.008	0.041	0.201	0.841	2.231	Rejected
H4	SCBI → SCB	0.130	0.043	3.003	0.003	2.136	Accepted
Mediating effect SBI							
H1c	EK → SBI → SCB	0.022	0.012	1.765	0.038		Accepted
H2c	EI → SBI → SCB	0.038	0.019	2.001	0.046		Accepted
H3c	PS → SBI → SCB	0.048	0.017	2.784	0.006		Accepted

EK stands for Environmental Knowledge, EI stands for Environmental Influences, PS stands for Promotion of Sustainable Consumption, SCB stands for Sustainable Consumption Behaviour, and SBI stands for Sustainable Consumption Behaviour Intention.
Source: Author's work (2024)

All of these VIF values are below the threshold of 3.3. This indicates no significant multicollinearity problems in this study (Diamantopoulos & Siguaw, 2006). The structural model in Figure 2 depicts the causal relationships between independent and dependent constructs. In this study, the bootstrapping approach is employed with 5,000 resamplings to evaluate the significance of

the path coefficient (Hair et al., 2017). The hypotheses relationships are shown in Table 3.

Figure 2.
Structural model of the study



Source: Authors' work (2024)

The findings reveal that environmental knowledge (β = 0.169, t = 2.190, p < 0.05), environmental influences (β = 0.289, t = 3.181, p < 0.05), and sustainable consumption promotion (β = 0.373, t = 5.471, p < 0.05) are each correlated with sustainable consumption intention. Therefore, hypotheses H1a, H2a, and H3a are accepted. Similarly, environmental knowledge (β = 0.500, t = 12.811, p < 0.05), environmental influences (β = 0.423, t = 9.240, p < 0.05), and sustainable consumption intention (β = 0.130, t = 3.003, p < 0.05) are correlated with sustainable consumption behaviour. However, sustainable consumption promotion (β = 0.008, t = 0.201, p > 0.05) is not correlated with sustainable consumption behaviour. Therefore, H1b, H2b, and H4 are accepted, while H3b is rejected. Furthermore, there is evidence that sustainable consumption intention mediates the influence of environmental knowledge (β = 0.022, t = 1.989, p < 0.05), environmental influences (β = 0.038, t = 2.001, p < 0.05), and sustainable consumption promotion (β = 0.048, t = 2.784, p < 0.05) on sustainable consumption behaviour. Therefore, hypotheses H1c, H2c, and H3c are accepted.

Discussion

This study has examined and confirmed several hypotheses on the factors influencing sustainable consumption behaviour. The analysis of the research findings provides valuable insights into the relationship between the variables under investigation and sustainable consumption behaviour. Overall, the results of this study are consistent with previous literature and offer valuable insights into understanding the factors influencing sustainable consumption behaviour.

The research findings indicate that environmental knowledge influences sustainable consumption intention (H1a), and this finding is consistent with previous research (Bala et al., 2022; Dimitrova et al., 2022; Michel et al., 2022; Saari et al., 2021). This aligns with the common view that individuals with a better understanding of environmental issues tend to have a stronger intention to adopt sustainable behaviours. These results reflect individuals' awareness of environmental impacts, which drives them to take more responsible actions in their consumption.

Our findings regarding the influence of the environment on sustainable consumption intention (H2a) are consistent with previous empirical studies (Bruno et al., 2022; Falke et al., 2022). These results underscore the importance of social and cultural environments in shaping individuals' perspectives on sustainable consumption behaviour. The roles of family, peers (Figueroa-García et al., 2018a; Huang et al., 2023; Lee et al., 2023; Sari & Muflikhati, 2018), and social media (Trivedi et al., 2018) are significant in shaping norms and values that support awareness of environmental issues, ultimately influencing individuals' intention to adopt more ethical consumption behaviours. These findings demonstrate that social environmental factors significantly shape individuals' perspectives and attitudes towards sustainability in consumption.

Similarly, the third finding reveals the impact of sustainable consumption promotion on sustainable consumption intention (H3a). This finding also validates previous research (Piligrimiene et al., 2020; Pop et al., 2020; Silberer et al., 2020; Sun & Xing, 2022) that efforts to promote and educate about sustainable consumption can influence individuals' intention to change their consumption behaviour. It indicates that educational messages and support from various stakeholders can play a crucial role in shaping sustainable consumption intention (Sousa et al., 2022).

On the other hand, the direct effects of the five identified factors (environmental knowledge, environmental influences, sustainable consumption promotion, and sustainable consumption intention) on sustainable consumption behaviour have been confirmed. The research indicates that environmental knowledge, environmental influences, and sustainable consumption intention directly influence sustainable consumption behaviour

(H1b, H2b, H4b). These results align with previous research findings (Noor & Kuswati, 2023; Piligrimiene et al., 2020; Lionikiene & Poškus, 2019; Saari et al., 2021; Tan & Quang, 2023; Zeng et al., 2023), emphasising the important role of these elements in shaping individuals' actual actions in adopting more sustainable consumption patterns.

However, interestingly, sustainable consumption promotion does not significantly influence sustainable consumption behaviour (H3b). These findings contradict previous research (Dinh et al., 2023; Jaiswal et al., 2022; Kumar & Pandey, 2023; Piligrimiene et al., 2020), which reported the direct effects of sustainable consumption promotion on sustainable consumption behaviour. This indicates that although promotion can encourage sustainable consumption intention, other factors, such as knowledge and environmental influences, may play a more dominant role in shaping actual actions in sustainable consumption.

Hypotheses H1c, H2c, and H3c posit that sustainable consumption intention mediates the relationship between environmental knowledge, environmental influences, sustainable consumption promotion, and sustainable consumption behaviour. The research findings affirm that sustainable consumption intention strongly mediates the relationships between environmental knowledge, environmental influences, sustainable consumption promotion, and sustainable consumption behaviour. This study is consistent with previous research (Made et al., 2022; Matharu et al., 2021; Saari et al., 2021; Sheoran & Kumar, 2022). These findings emphasise that sustainable consumption intention is the primary mediator, clarifying how knowledge and the social environment affect sustainable consumption behaviour. Sustainable consumption intention captures the impact of sustainable consumption promotion and exerts a more direct influence on the desired behaviour.

Conclusion, limitation, and future research

The findings indicate that environmental knowledge, environmental influences, and the promotion of sustainable consumption positively correlate with sustainable consumption intentions. Additionally, environmental knowledge, environmental influences, and sustainable consumption intentions positively correlate with sustainable consumption behaviour. However, the promotion of sustainable consumption does not significantly correlate with sustainable consumption behaviour.

This study has significant implications for developing intervention strategies and policies. Firstly, understanding the factors that drive sustainable consumption behaviour allows for the creation of more effective education programs and public campaigns. Secondly, the research results can guide product designers and service providers in creating solutions that align with the values and preferences of the millennial generation, catering to the demand for

environmentally friendly products and services. Lastly, the research promotes cross-sector collaboration between government, business, and civil society organisations to implement initiatives that encourage more sustainable consumption among millennials.

Furthermore, this study contributes to the literature on sustainable consumption behaviour by exploring the relatively new relationships between environmental knowledge, environmental influence, and the promotion of sustainable consumption. Theoretically, the findings enhance the understanding of sustainable consumption behaviour among millennials. By identifying the key roles of factors such as knowledge, environment, and promotion, the theoretical framework is enriched, highlighting important dimensions in shaping millennials' consumption preferences and behaviours.

Author contribution

Ayi Muhyidin: Conceptualisation, Writing - Original Draft, Formal Analysis, Data Handling, and Methodology. **Imal Istimal:** Supervision and Funding Acquisition. **Sutar:** Writing - Review and Editing. **Maswanto:** Conceptualisation and Methodology.

Declaration of interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Appendix 1

Convergent validity

Variables and items	FL	CA	rhoA	CR	AVE
Environmental Knowledge (Saari et al., 2021; Shimul & Cheah, 2023)		0.958	0.959	0.966	0.800
I possess a substantial understanding of the underlying causes of the current environmental predicament (EK1)	0.919				
My knowledge concerning environmental issues propels me to adopt more sustainable consumption patterns (EK2)	0.876				
I carefully consider the environmental impact when purchasing products or services (EK3)	0.899				
I consciously avoid products packaged in single-use plastic to alleviate plastic waste (EK4)	0.910				
I prefer products that are recycled or possess eco-friendly labels (EK5)	0.900				
I actively seek out information regarding sustainable consumption practices and methods to reduce environmental impact (EK6)	0.881				
My overall lifestyle wholeheartedly supports sustainable consumption behaviour (EK7)	0.876				
Environmental Influences (Figueroa-García et al., 2018; Trivedi et al., 2018)		0.959	0.960	0.966	0.804
The environment surrounding me serves as a profound inspiration for me to adopt environmentally friendly consumption behaviours (EI1)	0.855				
I frequently engage in social activities or campaigns that support the environment (EI2)	0.892				
I am conscious of environmentally friendly product choices and prioritise them in my consumption habits (EI3)	0.923				
An eco-friendly culture holds significant value in my day-to-day life (EI4)	0.902				
I feel a sense of responsibility to preserve the environment for future generations (EI5)	0.909				

Variables and items	FL	CA	rhoA	CR	AVE
I actively separate and recycle recyclable waste (EI6)	0.896				
I believe that the media plays a crucial role in shaping my understanding and awareness of sustainable consumption (EI7)	0.899				
Promotion of sustainable consumption (Piligrimiene et al., 2020)		0.896	0.900	0.928	0.762
The acquisition of knowledge regarding environmental issues aids in my comprehension of the environmental impact of consumption (PS1)	0.874				
Promotion of green products captures my attention and influences my consumption choices (PS 2)	0.878				
Promotion of recycling enhances my awareness and participation in waste separation and recycling (PS3)	0.891				
Environmental campaigns conducted by communities or organisations motivate me to adopt sustainable consumption (PS4)	0.849				
Sustainable consumption behaviour intention (Chen et al., 2022)		0.859	0.859	0.905	0.703
I am willing to pay a premium for products that have a lower environmental impact (SBI1)	0.928				
Sustainability factor is one of my primary considerations in making purchasing decisions (SBI 2)	0.923				
I have a strong desire to transform my consumption habits into more sustainable ones (SBI 3)	0.921				
I believe it is important to share information about sustainable consumption with family and friends (SBI4)	0.932				
Sustainable Consumption Behaviour (Dong et al. 2020)		0.945	0.945	0.960	0.858
I take into account the environmental impact when buying products (SCB1)	0.844				
I strive to reduce the use of disposable products and switch to reusable ones (SCB2)	0.865				
I make an effort to recycle recyclable products instead of throwing them away (SCB3)	0.805				
I am concerned about environmental damage and take small steps to reduce my impact (SCB4)	0.839				

FL, Factor Loading; CR, Cronbach's Alpha; rhoA, Dillon-Goldstein's rho; CR, Composite Reliability; AVE, Average Variance Extracted.

Source: Authors' work (2024)