Vilnius University Press

Content lists are available at VilniusUniversity Press

Transformations In Business & Economics
2026, Vol. 25 No 1 (67), pp.73-87.

ISSN 1648-4460; E-ISSN 2538-872X
https://doi.org/10.15388/Tibe.2026.25.1.4

Chapter: Fostering Transformative Shifts in Sustainability and Environmental Behaviour

THE RELATION BETWEEN ENVIRONMENTAL AWARENESS, SUSTAINABILITY AND CONSCIOUS LIVING AMONG CONSUMERS

Monika Garai-Fodor
E-mail: fodor.monika@kgk.uni-obuda.hu
ORCID: hhttps://orcid.org/0000-0001-7993-2780
Affiliation: Obuda University, Keleti Karoly Faculty of Business and Management, Hungary
ROR: https://ror.org/00ax71d21

Nikolett Huszak
E-mail: huszak.nikolett@uni-obuda.hu
ORCID: https://orcid.org/0009-0003-4080-858
Affiliation: Obuda University, Keleti Karoly Faculty of Business and Management, Hungary
ROR: https://ror.org/00ax71d21

Annotation. The research analysed the relationship between sustainable, environmentally conscious behaviour and conscious living. We were interested in the extent to which self-awareness and self-development are crucial dimensions of social and environmental awareness. In case of our quantitative research, snowball sampling method with seeds was used, resulting in 2033 reachable questionnaires. Based on the results, it was found that environmentally conscious, sustainability-seeking consumer attitudes function as a segmentation criterion, three distinct consumer segments could be characterised: 'conscious, sustainability-seeking consumers', 'hesitant consumers' and 'risk-aware, empowered consumers'. For all three groups of consumers, we found a statistically significant relationship between the perception of the importance of self-awareness and self-development, which clearly indicated the extent to which these competences play a decisive role in the development of conscious and sustainability-seeking behaviour. The study made concrete suggestions for the adequate development of self-development and self-awareness in relation to enhancing environmentally conscious and sustainable consumer behaviour.

Keywords: sustainability, awareness, self-development.

JEL classification: I 29, J19, I23.

Introduction

The importance of self-awareness and self-development is nowadays increasingly recognised and emphasised in the context of sustainability and conscious living. Self-awareness is defined as the awareness of the individual, encompassing their belief systems, assumptions, and values, in addition to the impact of their actions on the environment. As a recent review study observes, self-awareness, defined as 'how we see ourselves and how we affect our environment', exerts a fundamental influence on our behaviour and the kind of person we wish to become (Carden *et al*., 2022; London *et al*., 2023). Self-development can be defined as the process of making a conscious effort to develop one's own skills, character and attitudes in order to become a better version of oneself (Villido, 2018). These two factors are closely linked to conscious living, which involves conscious decision-making, value-based action and consideration of long-term consequences in everyday life (Ardelt, Grunwald, 2018; Cook, 1999).

Submitted on April 2025. Accepted on June 2025.

The concept of sustainability, encompassing environmental, social and economic dimensions, cannot be realised solely through technological innovation or regulatory measures. A fundamental transformation in the cognitive frameworks of individuals is also imperative for achieving this objective. A plethora of studies have demonstrated that internal qualities that facilitate personal transformation, such as self-awareness (i.e. self-reflection), insight, purposefulness and agency, are foundational elements in the promotion of sustainable behaviour. (Jansen *et al*., 2024). In order to make sustainable and conscious choices in everyday life (e.g. waste fewer resources, consume more ethically, care for one's own well-being and that of the environment), a certain level of self-awareness and personal development based on this is essential (Halicka *et al*., 2025; Jansen *et al*., 2024; Jansson-Boyd, Cloherty, 2014; Villido, 2018).

This necessitates an interdisciplinary approach (Christensen *et al*., 2021; Lee *et al*., 2021; Toh, Tambyah, 2022; Žalėnaukis, Pereira, 2021). From a psychological perspective, it is important to understand how the development of an individual's inner world, self-awareness, and values influences their behaviour and decisions in the area of sustainability (Villido, 2018). From an educational perspective, this raises the question of how to integrate the promotion of self-awareness and self-development into education in order to educate conscious and responsible citizens (Seville, 2021; Awan *et al*., 2021). From an economic perspective, it is imperative to analyse the impact of a self-aware, value-oriented society on consumption patterns, the labour market, and, in the longer term, economic growth. This analysis should consider the interaction with sustainability goals (Grigiriescu *et al*., 2021; Awan *et al*., 2021). Generation Z merits particular consideration as they are the decision-makers, consumers and opinion leaders of the future. In the context of the digital age, characterised by the rapid dissemination of information and the concomitant challenges, the necessity for guidance and self-awareness to cultivate a value-based, sustainable lifestyle is particularly salient (Garai-Fodor, Huszák, 2025a; McCrindle, 2025; McKinsey, 2024a). The aforementioned concepts and reflections underpin the pursuit of the Sustainable Development Goals (SDGs), which encompass principles that address environmental, economic, and social dimensions (Manning *et al*., 2020). The Sustainable Development Goals (SDGs), established by the United Nations in 2015, are a set of 17 interconnected goals that aim to address global challenges such as poverty, inequality, climate change, and environmental degradation by the year 2030. These objectives function as a comprehensive blueprint for achieving a more equitable and sustainable future. It is evident that Generation Z, comprising individuals born between 1995 and 2010, are uniquely positioned to drive progress towards the aforementioned goals. Generation Z is distinguished by their digital fluency and social consciousness. Consequently, they are actively engaged in climate activism and sustainability initiatives. Educational institutions have been identified as playing a critical role in harnessing the potential of Generation Z by integrating the principles of the Sustainable Development Goals into curricula, with a view to fostering a sense of global citizenship and purpose. By aligning their values and actions with the SDGs, Gen Z is not only transforming the present, but also laying the groundwork for a more sustainable and inclusive future.

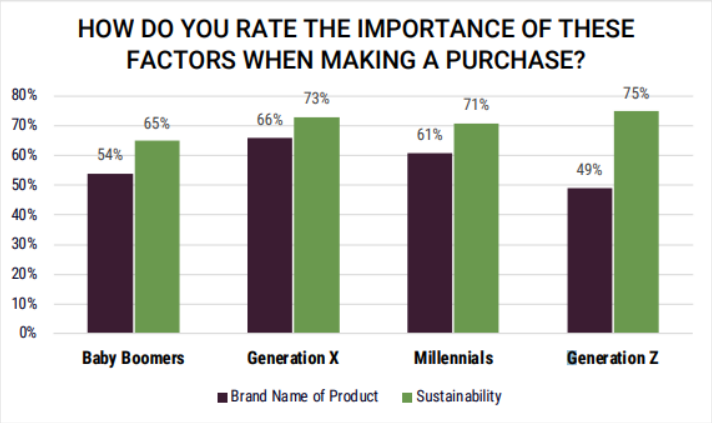
However, achieving the SDGs also requires a change in the mindset, behaviour and transformative capacity of the individual, which can be achieved by following the definition and methodology of the SDGs (Ankrah *et al*., 2023a; Mubtaker, 2024; Syrgiannis *et al*., 2019).

1. Literature Review

In the course of our research, we explored a number of themes, including the relationship between sustainability and awareness, the significance of environmental impacts and climate change, the importance of self-awareness and self-improvement, and the relationship between sustainability. In addition, an investigation was conducted into the correlation between personal and social responsibility

and the issue in question. A subsequent review of the extant literature revealed numerous studies that have previously addressed the topic, thus lending support to the findings from several perspectives. The present study focuses on Generation Z, the only age group that was the subject of the research.

The term 'Generation Z' is used to denote young people born between 1995 and 2010. Research conducted by McCrindle (McCrindle, Fell, 2019) suggests that this group is a particularly interesting one in terms of studying the relationship between self-awareness and sustainability. These individuals have matured into a climate-conscious discourse, while their personalities are being shaped by digitalisation and information overload (McKinsey, 2024b). A plethora of surveys and research findings have indicated that Generation Z members appear to be particularly responsive to sustainability issues (Insight, 2022; The sustainability generation, 2023). A World Economic Forum article from three years ago also supports the finding that three quarters of Generation Z youth surveyed prefer a sustainable product over a brand name (World Economic Forum, 2022).



Source: World Economic Forum.

Figure 1. **Purchase Based on Brand Name of the Product vs. Sustainability**

As demonstrated by international studies, this age group evinces the most profound concern for the future of the planet. Moreover, it is characterised by a propensity to influence its environment in order to assist others in making more sustainable choices (Nielsinq.com, 2024; Salguero *et al.*, 2024). However, it is important to emphasise that Generation Z is not a homogeneous group; their behaviour and choices are significantly influenced by their social and cultural context. A comparative study has demonstrated that, although Generation Z's sustainability orientation is generally strong, its manifestation may differ between, for example, the US and India, partly due to different subjective norms and environmental conditions (Seemiller, Grace, 2024; Sengupte *et al.*, 2024). This suggests that their positive attitudes towards sustainability do not invariably translate into concrete actions or decisions in all life situations. The values espoused by Generation Z, as outlined in the extant literature, include authenticity, self-actualisation, and mental health. Additionally, members of this demographic are said to be cognisant of sustainability and individual responsibility (Kara, Min, 2023). Furthermore, members of Generation Z place a high value on authenticity, diversity, and mental well-being. They are also highly aware of environmental and social issues. Generation Z has been shown to demonstrate a strong commitment to supporting sustainable brands, and there is a growing expectation among this demographic that businesses will demonstrate ethical practices and transparency.

A significant proportion of young people assert that self-development is of importance to them, whether in relation to career goals, lifestyle changes or even achieving spiritual well-being. These aspirations can

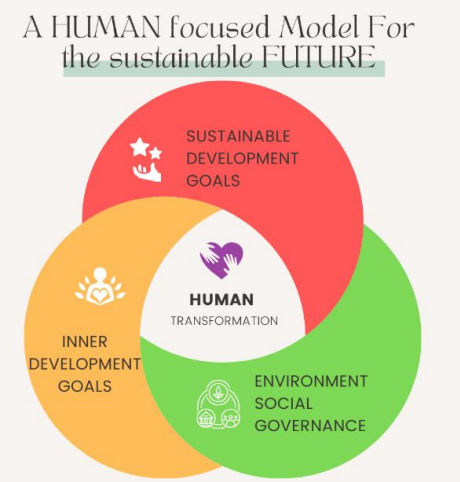
provide a positive basis for a commitment to sustainability, as part of conscious self-development. Indeed, the recognition that personal well-being is closely linked to the state of the environment is an integral component of this (Henderson, Loreau, 2023; Sengupta, 2002). The notion of conscious living, which encompasses the cultivation of health, relationships, and environmental well-being, is also gaining traction among Generation Z. As demonstrated in the findings of a preceding study, young individuals do indeed hold the conviction that the foundation of conscious living is good self-awareness, perceiving healthy habits as the embodiment of this concept (Garai-Fodor, Huszák, 2025b). The development of self-awareness and the promotion of sustainability values are pivotal issues. The cultivation of self-awareness facilitates the clarification of needs, enables informed purchasing and consumption decisions, and fosters the emergence of conscious consumer behaviour. This finding is indicative of a value-driven mindset and environmental awareness as a preference (Hanel, Basil, 2023; Lee, Workman, 2020). In order to obtain a more comprehensive understanding of Generation Z's heightened levels of conscious consumption habits, it is imperative to explore the various dimensions of consciousness. The mindset of Generation Z is having a significant impact on business models, with a shift towards greater emphasis on sustainability, social impact, and long-term value, as opposed to short-term profit. A body of research has previously been conducted on the subject of consumer preferences of this generation from the perspective of marketing strategy, and the development of sustainable relationships with said consumers. In the present study, social values, environmental concerns, sustainability, and the impact of social media and personalised experiences were identified as areas of interest (Salam *et al*., 2024).

The concept of awareness, its dimensions, the significance of self-love and self-development, and their correlation with conscious consumption, as well as aspects of responsibility and sustainability, can all be associated with specific themes of the SDGs. These themes are closely related to economic growth and economic sustainability (Ankrah *et al*., 2023b; Esghtereport, 2024; Hamadeh, 2022; Innovative Development of Modern Organizations, 2025; The 17 Goals, 2023).

The United Nations Sustainable Development Goals (SDGs) are believed to be capable of being achieved through the implementation of Inner Development Goals (IDGs). The IDGs are a framework developed precisely to foster inner growth, which is necessary for individuals to drive meaningful societal change. The IDGs identify five pivotal dimensions – Being, Thinking, Relating, Collaborating, and Acting – comprising 23 skills and qualities such as self-awareness, empathy, critical thinking, and resilience. These inner capacities are essential for navigating complex global challenges with wisdom and compassion.

For Generation Z, the IDGs resonate profoundly. Born into an era of rapid technological change, climate crisis, and global uncertainty, Generation Z values authenticity, mental health, and purpose-driven action. A plethora of studies have demonstrated that contemporary generations exhibit higher levels of self-awareness and emotional intelligence in comparison to their predecessors. The pursuit of career success, personal fulfilment, and positive societal impact characterises this demographic. The alignment of IDGs with the values of Gen Z, particularly their pursuit of conscious living and sustainability, is a salient point of interest. This assertion underscores the notion that the initiation of systemic change is contingent upon the occurrence of individual transformation.

It is imperative for Generation Z to nurture intrinsic growth in order to lead with empathy, adopt a long-term perspective, and cultivate inclusive collaboration. These are the traits that are essential for the establishment of sustainable societies. Educational institutions, employers, and policymakers who adopt the IDGs will be better able to engage this generation, thereby empowering them as conscious change-makers ready to co-create a just and thriving future.



Source: created by the authors.

Figure 2. **A Human Focused Model for Sustainable Future 3+1 Dimensional Model**

We have made the context of our research more transparent and meaningful by creating the following three plus one dimensional model of how we see each sustainability framework related to Generation Z's awareness, self-development and consumption habits. The model illustrates how everything inside the human factor enables change inside and then outside, affecting the environment, people and choices.

2. Material and Methodology

A two-stage research project was applied in the autumn of 2024 as a primary research.

Source: created by the authors.

Figure 3. **Research Project Flowchart**

The two-stage research project undertaken in autumn 2024 constituted the primary research. The initial phase of the study involved qualitative research, conducted in September 2024. This phase entailed the execution of mini-focus group interviews, utilising a semi-structured interview schedule. The second

phase of quantitative data collection entailed the administration of a pre-tested, standardised, online questionnaire.

In both qualitative and quantitative research, a non-random sampling procedure was employed, incorporating a heterogeneous snowball sampling method with seeds. The sampling process was initiated with the identification of seeds, which were reported by students of the Keleti Károly Faculty of Economics at Obuda University. Participants were approached and requested to recommend subjects from each generation included in the study to participate. In addition to their own participation, they were asked to recommend other individuals from their social network who also met the research criteria (generational affiliation). This recommendation process formed the basis for expanding the sample size through subsequent waves of recruitment. The recommendation process was conducted iteratively, with each participant nominating others who in turn recommended additional participants. This chain-like referral mechanism enabled the recruitment of individuals who would not have been reached or would have been difficult to reach using traditional sampling methods (e.g. Generation Z and Alpha). By leveraging existing social connections and networks using the heterogeneous snowball sampling with seed method, 40 subjects (i.e. 10 mini-focus group participants) were recruited in the qualitative research, and 2,033 evaluable questionnaires were obtained in the quantitative research.

In the initial qualitative investigation, heterogeneous mini-focus groups were established, with participants from different generations selected to ensure a range of perspectives. Each group consists of four participants. The semi-structured interview schedule will encompass the following main topics: awareness and its dimensions, the importance of self-awareness and self-development and its relation to conscious behaviour, the role of self-development and self-awareness and its development in education. The primary objective of the qualitative research was to establish a foundation for the subsequent quantitative phase, to finalise its research tool and to delineate the research hypotheses. The qualitative data were evaluated using a conventional content analysis method.

In the second step of the research process, quantitative data was collected in October 2024, using the heterogeneous snowball seed sampling technique that had been detailed earlier. The online survey yielded an evaluable questionnaire in 2033. The sample comprised 40% male and 60% female respondents, all of whom were members of Generation Z. 37% of the respondents resided in the capital, 41% in cities, and only 22% in villages. The survey revealed that 37% of respondents had completed secondary education, while the remainder were still engaged in this educational phase.

The research tool employed was a pre-tested, standardised questionnaire, which covered the following topics: the perception and practice of conscious living; the analysis of individual life goals and value orientation; the relationship between conscious living and self-awareness; and the possibilities of self-awareness and self-development in higher education. The questionnaire employed in this study was of a closed nature, with three open-ended questions inviting free association. In the case of closed questions, a combination of both nominal and metric-level questions was employed. The former category included single- and multiple-choice selective questions, as well as ranking questions. The latter comprised Likert and semantic differential scales.

The subjects were invited to respond to scale questions on a scale of 1 to 4. One potential explanation for this phenomenon is the individual scale preference of Hungarian respondents. Due to the school grading system in Hungary, Hungarian respondents demonstrate greater stability in interpreting a scale of up to five grades as opposed to scales of 1-7, 1-9 or 1-10. The even scale was selected because the middle value (3) for the odd (1-5) scale functions as an escape route for respondents. The presence and potential

overrepresentation of 'indifferent' consumers selecting the middle value complicates the segmentation process from both a statistical and a professional perspective. Consequently, an even scale was selected, a method that, by excluding the middle value, compels the respondent to adopt a more rigorous stance, thereby facilitating the effective execution of the segmentation process (Malhotra, Simon, 2017).

The quantitative results were processed and the hypotheses were tested by means of descriptive statistics, bivariate and multivariate analyses, using SPSS 26.0 software. In order to examine the correlation of the results measured on the metric scale, the analysis of variance method was used, including the one-way ANOVA method for comparing multiple sample means. The mean of a metric dependent variable was then compared between more than two groups. The post-hoc test was utilised to ascertain which pairs of groups exhibited significant disparities. In order to ascertain the existence of correlations ($p < 0.05$), significance values were utilised. The internal correlations were analysed using the F-statistic, i.e. the coefficient of variance of the means within samples (McKinsey, 2024b; Mubtaker, 2024). For the correlation tests described in this study, where the significance value according to the ANOVA table was below 0.05, the statistical relationship between the two variables was confirmed (Sajtos, Mitev, 2007).

3. Results

For the first time, the present study analysed respondents' perceptions of individual and social responsibility in relation to sustainability and environmental behaviour (Espejo *et al.*, 2025). The analysis was conducted using a list of statements derived from the qualitative research phase. The mean scores obtained on a scale from 1 to 4 indicated that the sample members considered individual responsibility to be the most significant, and that they perceive the impact of climate change in their daily lives (*Table 1*). The repercussions of climate change are also experienced on a quotidian level; that is to say, environmental issues cannot be circumvented or sidestepped, and as a result individual participation is imperative in identifying solutions to these global challenges (Filip *et al.*, 2025).

Table 1. Preception of Aspects of Sustainability and Enviromental Awareness (Average, where 1=Strongly Disagree, 4=Strongly Agree)

List of claims	Mean	Std. deviation
Economic growth is more important than sustainability	2.23	0.860
In my everyday shopping, I give preference to companies that offer sustainable products and services	2.72	0.899
I am willing to pay more for a more sustainable product	2.67	0.918
I feel that the domestic labour market does not support sustainable solutions enough	2.90	0.871
Business should play a bigger role in shaping a sustainable future	3.17	0.859
I am already experiencing the effects of climate change in my daily life	3.10	0.929
Environmental awareness is a feature of my consumption habits	2.68	0.863
I want to learn more about how I can reduce my ecological footprint	2.87	0.902
It is important for me to use environmentally friendly technologies	2.88	0.877
Individual responsibility is essential to solve environmental problems	3.16	0.876

Note: own research, N=2033.

Source: created by the authors.

In the subsequent phase of the research, a factor analysis was conducted on the list of statements using the varimax method to test the hypothesis. The decision to adopt a three-factor structure was informed by the KMO value and the overall variance, as well as the professional explanatory power. Consequently, three factors were identified (*Table 2*).

Table 2. Factor Groups for Sustainability, Environmentally Conscious Behaviour

List of claims	Component		
	Activity and sustainability	Liability, consequences	Economic growth
I am willing to pay more for a more sustainable product	**0.755**	0.098	0.120
In my everyday shopping, I give preference to companies that offer sustainable products and services	**0.748**	0.117	0.166
Environmental awareness is a feature of my consumption habits	**0.726**	0.199	0.055
It is important for me to use environmentally friendly technologies	**0.647**	0.116	-0.103
I want to learn more about how I can reduce my ecological footprint	**0.576**	0.180	-0.126
I feel that the domestic labour market does not support sustainable solutions enough	0.011	**0.729**	0.280
I am already experiencing the effects of climate change in my daily life	0.178	**0.708**	-0.042
Business should play a bigger role in shaping a sustainable future	0.237	**0.684**	-0.034
Individual responsibility is essential to solve environmental problems	0.310	**0.680**	-0.086
Economic growth is more important than sustainability.	0.148	0.006	**0.933**

Note: N=2033. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalisation. total variance=60.474%; KMO=0.881.

Source: own research.

The 'Activity and Sustainability' factor group encompasses factors pertaining to individual behavioural elements, including the prevalence of environmental and sustainability considerations in purchasing decisions, product choice, and openness to learning about sustainability. The present findings are consistent with those of international research, which has also underscored the significance of these dimensions (Nguyen, Johnson, 2020).

The 'Responsibility, consequences' factor group encompasses factors that demonstrate the impact of climate change on our daily lives and underscore the necessity for individual and societal responsibility and engagement. The role of these elements in sustainability is also supported by previous research (Dragolea *et al*., 2023).

In the 'Economic Growth' factor, a single factor was included in both the three- and four-factor solutions, and the priority of economic growth over sustainability. This factor was not an element that varied in any single factor test; it was consistently a single, separate factor for each structure. This, in line with previous research, emphasises the role of the economic aspect in sustainability (Jackel, Garai-Fodor, 2025).

In the subsequent phase, a K-means clustering procedure was implemented for the factor weights, with the objective of demonstrating that perceptions of sustainability and the elements of environmentally conscious behaviour can function as a segmentation criterion. The procedure yielded three markedly distinct clusters (*Table 3*).

Table 3. Consumer Groups According to Their Perception of Aspects of Sustainability and Environmentally Responsible Behaviour

Factors	Cluster		
	Uncertain N=655	Conscious, sustainability-minded people N=800	Recognising risks, wanting to be involved N=578
Activity and sustainability	-0,70980	0,81754	-0,32719
Liability, consequences	0,81999	0,16049	-1,15135
Economic growth	-0,32498	0,42669	-0,22230

Note: own research, N=2033.

Source: created by the authors.

The 'Uncertain' segment (N=655) consists of individuals who lack the requisite knowledge to evaluate the aspects of sustainability and environmental awareness. Those who did not adopt a position, either due to a lack of information or negative attitudes towards the issue, did not rate any of the factors as important or decisive above average.

The activity and sustainability factor was rated above average by participants who described themselves as 'conscious, sustainability-minded' (N=800). These consumers claim to make environmentally conscious purchasing decisions on a daily basis, opting for eco-friendly solutions even when such choices incur a higher financial risk. These individuals actively seek and heed information and instructions that facilitate the reduction of their ecological footprint.

The 'Risk Aware, Empowered' (N=578) consumer is defined by a conviction that individuals, society, companies and economic actors should assume a more significant role in addressing environmental issues. Those who are cognisant of the problems and changes caused by climate change in their daily lives and consider their individual responsibility in providing adequate solutions to these problems to be strong.

Subsequent analysis of the clusters revealed no statistically significant correlation between cluster membership and the socio-demographic element under investigation, neither in terms of age nor gender (sig>0.05). Consequently, we proceeded to analyse additional potential relationships and correlations along the descriptive variables. The results indicate that perceptions of the significance and function of self-awareness and self-development vary across distinct clusters. The statistical significance of the relationship between these two variables was confirmed through analysis of variance (p=0.05; see *Table 4*).

The results of the study indicate that 'conscious sustainability strivers' regard self-awareness as a pivotal element for sustainable living, and they allocate a significant amount of attention to self-development. Consequently, there has been a reported enhancement in their self-esteem, leading to a congruence between their self-image and the perceptions held by others.

In the context of 'risk-aware, empowered' individuals, it appears that they demonstrate a reduced propensity to discern and comprehend the significance and function of self-development and self-awareness. The emphasis placed on self-development is negligible, and the concept is not perceived as a defining dimension of sustainable living. It is the contention of the present study that the trepidation surrounding environmental risks, coupled with the reliance on external entities – be they corporate entities, market actors or employers – to mitigate these risks, may be indicative of a deficiency in self-awareness and self-efficacy. It is posited that this can be effectively addressed through educational interventions.

Table 4. Perception of the Importance and Role of Self-Awareness and Self-Development and the Relationship Between Clusters

Relationship between statement list and clusters		N	Mean	Std. deviation
Self-awareness is essential for a successful life	Uncertain	630	**3.65**	0.668
	Conscious, sustainability-minded people	771	**3.60**	0.644
	Recognising risks, expecting engagement	557	2.90	1.060
	Total	1958	3.42	0.857
Self-awareness is key to sustainable living	Uncertain	630	3.11	0.839
	Conscious, sustainability-minded people	771	**3.35**	0.710
	Recognising risks, expecting engagement	557	2.69	0.896
	Total	1958	3.09	0.851
I work regularly on my self-improvement	Uncertain	630	2.95	0.883
	Conscious, sustainability-minded people	771	**3.22**	0.737
	Recognising risks, expecting engagement	557	2.66	0.910
	Total	1958	2.97	0.867
My self-esteem has changed in a positive direction over the years	Uncertain	630	2.95	0.990
	Conscious, sustainability-minded people	771	**3.25**	0.792
	Recognising risks, expecting engagement	557	2.71	0.934
	Total	1958	3.00	0.927
My self-image is in line with how others see me	Uncertain	630	2.54	0.872
	Conscious, sustainability-minded people	771	**3.00**	0.808
	Recognising risks, expecting engagement	557	2.54	0.888
	Total	1958	2.72	0.881

Note: N=2033, analysis of variance, one-way ANOVA.

Source: own research.

It is evident that the 'Uncertain' exhibited a notable absence of self-awareness. The possession of self-awareness was regarded as being of pivotal significance for the attainment of a fruitful and enduring existence. Nevertheless, there is a necessity for enhancement of their self-concept and self-image. It is our contention that it is not possible to speak of negative attitudes or passivity towards sustainability and environmental awareness among the 'Uncertain'; rather, we propose that the issue is a lack of education as a barrier. It is hypothesised that these consumers can be persuaded and educated to become active citizens through the transfer of appropriate knowledge and the development of relevant competences.

Furthermore, a correlation was identified between the descriptive variable and cluster membership for additional behavioural items (*Table 5*). It is evident that individuals who align with the 'Conscious, Sustainability-Minded' paradigm demonstrate a conscientious approach to their expenditure, meticulously considering the implications of their purchasing decisions. In addition to being informed prior to purchase, a characteristic of conscious behaviour, consumers do not make decisions impulsively but rather carefully and informatively.

Table 5. The Relationship Between Awareness-Related Behavioural Elements and Clusters

Behavioural elements and the relationship between clusters		N	Mean	Std. deviation	Sig
I pay attention to how much I spend on what	Uncertain	599	3.10	0.861	0.019
	Conscious, sustainability-minded people	758	**3.11**	0.846	
	Recognising risks, expecting engagement	541	2.99	0.878	
	Total	1898	3.07	0.861	
I do my research before buying	Uncertain	599	**2.94**	0.863	0.039
	Conscious, sustainability-minded people	758	**2.93**	0.843	
	Recognising risks, expecting engagement	541	2.82	0.884	
	Total	1898	2.90	0.862	
I volunteer	Uncertain	599	2.08	0.963	0.039
	Conscious, sustainability-minded people	758	**2.17**	1.005	
	Recognising risks, expecting engagement	541	**2.23**	0.969	
	Total	1898	2.16	0.983	
I donate to the needy	Uncertain	599	2.37	0.900	0.009

Note: own research, N=2033.

Source: created by the authors.

Furthermore, volunteering and charitable contributions are notably higher than the norm, a trend that is also evident among the 'Risk Aware, Expecting to Play a Role' group. In addition to companies and labour market actors, they emphasised the significance of their individual responsibility in constructing a more sustainable future. The significance of individual empowerment appears to be reflected not only in their preferences but also in their actions.

Conclusions

The extant interdisciplinary literature, in conjunction with the research findings presented here, suggests that self-awareness and self-development play a central role in the development of sustainable and conscious lifestyles. At the psychological level, the ability of individuals to make responsible choices is determined by their intrinsic values and awareness. At the educational level, the development of self-awareness establishes the foundation for future generations' sustainability competence. From an economic perspective, the transformation of markets and growth patterns towards a more sustainable future is driven by a community of conscious individuals. In the case of Generation Z, it is evident that the integration of personal development and the pursuit of sustainability can exert a significant influence on future socio-economic processes. The multifaceted challenges posed by sustainability necessitate a dual approach, encompassing both external systemic transformation and internal, individual-level development. It is evident from the research that a more profound comprehension of ourselves is pivotal to the establishment of a conscious and sustainable future.

In light of the research's inherent limitations, conducting an international comparative analysis could offer a more comprehensive understanding of the parallels and disparities in cultural norms, values, and belief systems. This analysis could elucidate the influence of these systems on transnational decision-making processes and choice mechanisms. Furthermore, it could explore the relationship between self-awareness and sustainability, and the ramifications for the SDGs.

Literature

Ankrah, D., Bristow, J., Hires, D., Artem Henriksson, J. (2023a), "Inner Development Goals: from inner growth to outer change. Field Actions Science Reports", *The Journal of Field Actions*, No 25, pp.82-87.

Ardelt, M., Grunwald, S. (2018), "The Importance of Self-Reflection and Awareness for Human Development in Hard Times", *Research in Human Development*, Vol. 15, No 3-4, pp.187-199, https://doi.org/10.1080/15427609.2018.1489098.

Carden, J., Jones, R.J., Passmore, J. (2022), "Defining Self-Awareness in the Context of Adult Development: A Systematic Literature Review", *Journal of Management Education*, Vol. 46, No 1, pp.140-177, https://doi.org/10.1177/1052562921990065.

Christensen, J., Ekelund, N., Melin, M., Widén, P. (2021), "The Beautiful Risk of Collaborative and Interdisciplinary Research: A Challenging Collaborative and Critical Approach towards Sustainable Learning Processes in Academic Profession", *Sustainability*, Vol. 13, No 9, Article 9, https://doi.org/10.3390/su13094723.

Cook, S.H. (1999), "The self in self-awareness", *Journal of Advanced Nursing*, Vol. 29, No 6, pp.1292-1299, https://doi.org/10.1046/j.1365-2648.1999.01014.x.

Dragolea, L.-L., Butnaru, G.I., Kot, S., Zamfir, C.G., Nuţă, A.-C., Nuţă, F.-M., Cristea, D.S., Ştefănică, M. (2023), "Determining factors in shaping the sustainable behaviour of the generation Z consumer", *Frontiers in Environmental Science*, Vol. 11, https://doi.org/10.3389/fenvs.2023.1096183.

ESG/ The Report (2024), *What is SDG and ESG?*, available at, https://esgthereport.com/what-is-sdg-and-esg/, referred on 30/12/2024.

Espejo, L., Perez, N., Mendoza, C., Gagarín, Y. (2025), "A Systematic Review on Unique Characteristics of Generation Z and Their Impact on Purchasing Decisions", *Journal of Ecohumanism*, Vol. 4, No 1, Article 1, https://doi.org/10.62754/joe.v4i1.4079.

Filip, A., Stancu, A., Onișor, L.-F., Mogoș, O.C., Catană, Ștefan-A., Goldbach, D. (2025), "Drivers of Purchase Intentions of Generation Z on Eco-Products", *Sustainability*, Vol. 17, No 2, Article 2. https://doi.org/10.3390/su17020629.

Garai-Fodor, M., Huszák, N. (2025a), "The potential of integrating conscious living into education for generation Z in the light of primary data", *Frontiers in Education*, Vol. 9, https://doi.org/10.3389/feduc.2024.1477879.

World Economic Forum (2022), *Gen Z cares about sustainability more than anyone else - and is starting to make others feel the same way*, available at, https://www.weforum.org/stories/2022/03/generation-z-sustainability-lifestyle-buying-decisions/, referred on 22/03/2024.

Grigorescu, A., Pelinescu, E, Dutcas, M.F., Ion, A.E. (2021), "Human Capital in Digital Economy: An Empirical Analysis of Central and Eastern European Countries from the European Union", *Sustainability*, Vol. 13, No 4, https://www.mdpi.com/2071-1050/13/4/2020.

Halicka, E., Kaczorowska, J., Rejman, K., Plichta, M. (2025), "Investigating the Consumer Choices of Gen Z: A Sustainable Food System Perspective", *Nutrients*, Vol. 17, No 3, Article 3, https://doi.org/10.3390/nu17030591.

Hamadeh, S.A. (2022), "How gen Z can improve community literacy about the 17 SDGs? A realist approach to construct a futuristic change-maker paradigm", *Green Technology, Resilience, and Sustainability*, Vol. 2, No 1, 2, https://doi.org/10.1007/s44173-022-00002-2.

Hanel, V., Basil, D.Z. (2023), "Socially conscious consumer behavior: the role of ethical self-identity and priming", *International Review on Public and Nonprofit Marketing*, Vol. 20, No 2, pp.427-445, https://doi.org/10.1007/s12208-022-00348-0.

Henderson, K., Loreau, M. (2023), "A model of Sustainable Development Goals: challenges and opportunities in promoting human well-being and environmental sustainability", *Ecological Modelling*, Vol. 475, 110164, https://doi.org/10.1016/j.ecolmodel.2022.110164.

NIQ (2024), *How Gen Z Consumer Behavior is Reshaping Retail*, available at, https://nielseniq.com/global/en/insights/analysis/2024/how-gen-z-consumer-behavior-is-reshaping-retail/, referred on 21/02/2025.

Springer Nature Link (2024), *Innovative Development of Modern Organizations, New Economy and ESG Transformation*, available at, https://link.springer.com/chapter/10.1007/978-3-031-49711-7_11, referred on 19/03/2025.

First Insight (2022), The State of Consumer Spending: Gen Z Shoppers Demand Sustainable Retail, available at, https://www.firstinsight.com/white-papers-posts/gen-z-shoppers-demand-sustainability, referred on 15/03/2025.

Jäckel, K., Garai-Fodor, M. (2025), "How Generation Z Economics Students Think About Sustainability and the Environment, *2025 IEEE 23rd World Symposium on Applied Machine Intelligence and Informatics (SAMI)*, 000101-000106, https://doi.org/10.1109/SAMI63904.2025.10883159

Jansen, P., Hoja, S., Rahe, M. (2024), "The relationship between the aspects of connectedness and sustainable consumption", *Frontiers in Psychology*, Vol. 14, 1216944, https://doi.org/10.3389/fpsyg.2023.1216944.

Jansson-Boyd, C., Cloherty, R. (2014), "Using Self-Awareness as a Means to Reduce Energy Consumption", in: *Proceedings of the 4th World Sustainability Forum*, 1–30 November 2014, MDPI: Basel, Switzerland, https://doi.org/10.3390/wsf-4-e007.

Kara, A., Min, M.K. (2023), "Gen Z consumers' sustainable consumption behaviors: influencers and moderators", *International Journal of Sustainability in Higher Education*, Vol. 25, No 1, pp.124-142, https://doi.org/10.1108/IJSHE-08-2022-0263.

Lee, M.T., Kubzansky, L.D., VanderWeele, T.J. (2021), *Measuring Well-Being: Interdisciplinary Perspectives from the Social Sciences and the Humanities*, Oxford University Press, https://doi.org/10.1093/oso/9780197512531.001.0001.

Lee, S.-H., Workman, J. (2020), "How Do Face Consciousness and Public Self-Consciousness Affect Consumer Decision-Making?", *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 6, 144, https://doi.org/10.3390/joitmc6040144.

London, M., Sessa, V.I., Shelley, L.A. (2023), "Developing Self-Awareness: Learning Processes for Self- and Interpersonal Growth", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 10, pp.261-288, https://doi.org/10.1146/annurev-orgpsych-120920-044531.

Manning, L., Aguiar, L.K. de. (2020), "Embedding Sustainable Development in the Curricula: Learning about Sustainable Development as a Means to Develop Self-Awareness", in: Integrating Sustainable Development into the Curriculum, Emerald Publishing Limited, Vol. 18, pp.25-39, https://doi.org/10.1108/S2055-364120200000018020.

Malhotra, N.K., Simon J. (2017), *Marketing kutatás,* Akadémiai Kiadó, [Marketing research, *in Hungarian*].

McCrindle, M., Fell, A. (2019), Understanding Generation Z: Recruiting, Training and Leading the Next Generation, available at, https://mccrindle.com.au/app/uploads/2024/11/McCrindle_Trends-of-2025_Infographic.pdf, referred on 9/12/2024.

McKinsey (2024), What is Gen Z?, available at, https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-gen-z, referred on 9/12/2024.

Mubtaker, Y. (2024), *Inner Development Goals: Transformational Skills for Sustainable Development*, Independently published.

Nguyen, N., Johnson, L. W. (2020), "Consumer behaviour and environmental sustainability", *Journal of Consumer Behaviour*, Vol. 19, No 6, pp.539-541, https://doi.org/10.1002/cb.1892.

Sajtos L., Mitev A. (2007), SPSS kutatási és adatelemzési kézikönyv Budapest: Alinea Kiadó, [SPSS Research and Data Analysis Manual, *in Hungarian*].

Salam, K.N., Singkeruang, A.W.T.F., Husni, M.F., Baharuddin, B., A.r, D.P. (2024), "Gen-Z Marketing Strategies: Understanding Consumer Preferences and Building Sustainable Relationships", *Golden Ratio of Mapping Idea and Literature Format*, Vol. 4, No 1, Article 1, https://doi.org/10.52970/grmilf.v4i1.351.

Salguero, R.B., Bogueva, D., Marinova, D. (2024), "Australia's university Generation Z and its concerns about climate change", *Sustainable Earth Reviews*, Vol. 7, No 1, 8, https://doi.org/10.1186/s42055-024-00075-w.

Seemiller, C., Grace, M. (2024), "Prelims", in: C. Seemiller, M. Grace (eds.), Gen Z Around the World: Understanding the Global Cohort Culture of Generation Z, Emerald Publishing Limited, pp.i-xxvi, https://doi.org/10.1108/978-1-83797-092-620241017.

Sengupta, D., Mathews, M., Bridges, L., D'Costa, R., Bastian, B.L. (2024), "Sustainability Orientation of Generation Z and Its Role in Their Choice of Employer-A Comparative Qualitative Inquiry of India and United States", *Administrative Sciences*, Vol. 14, No 10, Article 10, https://doi.org/10.3390/admsci14100249.

Sengupta, R. (2002), "Human Well-Being and Sustainable Development", *Economic and Political Weekly*, Vol. 37, No 42, pp.4289-4294.

Seville-Liu, A. (2021), "Mori Akira's Education for Self-Awareness: Lessons from the Kyoto School for Mindful Education", *Journal of Philosophy of Education*, Vol. 55, No 1, pp.243-262, https://doi.org/10.1111/1467-9752.12546.

Syrgiannis, C., Zabaniotou, A., Fazenda, I. (2019), "Inner Processes of Creation towards awareness of own worth for sustainable proposals", *Journal of Cleaner Production*, Vol. 230, pp.767-774, https://doi.org/10.1016/j.jclepro.2019.05.150.

United Nations: THE 17 GOALS | Sustainable Development (2016), available at, https://sdgs.un.org/goals, referred on 19/03/ 2025.

Ulster University: The sustainability generation: Why do Generation Z care about this planet? (2023), available at https://www.ulster.ac.uk/faculties/ulster-university-business-school/updates/other/the-sustainability-generation-why-do-generation-z-care-about-this-planet, referred on 18/12/2024.

Toh, T.C., Tambyah, S.K. (2022), "Opportunities and Challenges in Developing Interdisciplinary Thinking in Undergraduate Education", in: *Student Growth and Development in New Higher Education Learning Spaces*, Routledge, https://doi.org/10.4324/9781003212843-3.

Awan U., Sroufe R., Shahbaz M. (2021), "Industry 4.0 and the circular economy: A literature review and recommendations for future research" in: Business Strategy and the Environment, Wiley Online Library. https://doi.org/10.1002/bse.2731

Villido, I. (2018), "Awareness as the new paradigm for personal sustainability: a practitioner's perspective on the sustainability transition", in: *Personal Sustainability*, Routledge, https://doi.org/10.4324/9781315159997-9.

Wahyuno, E., Sunandar, A., Ediyanto, E., Ramadhani, R.S., Fitrasari, B.D. (2021), "Management of Inclusive Education Services in School Through Self Awareness, Motivation, and Self Efficiency", *Journal of Disruptive Learning Innovation (JODLI)*, Vol. 3, No 1, pp.55-67, https://doi.org/10.17977/um072v3i12021p55-64.

Yılmaz, H.A. (2022), "Self-awareness and self-consciousness: a review from a social psychology perspective", *Psikiyatride Güncel Yaklaşımlar/Current Approaches in Psychiatry*, Vol. 14, No 4, pp.437-445, https://doi.org/10.18863/pgy.1029405.

Žalėnienė, I., Pereira, P. (2021), "Higher Education For Sustainability: A Global Perspective", *Geography and Sustainability*, Vol. 2, No 2, pp.99-106, https://doi.org/10.1016/j.geosus.2021.05.001.

Acknowledgements

Supported by the 2024-2.1.1 university research scholarship program of the ministry for culture and innovation from the source of the national research, development and innovation fund.

VARTOTOJŲ APLINKOSAUGINIO SĄMONINGUMO, TVARUMO IR SĄMONINGO GYVENIMO SĄSAJOS

Mónika Garai-Fodor, Nikolett Huszák

Santrauka. Tyrime analizuojamas tvaraus, aplinką tausojančio elgesio ir sąmoningo gyvenimo santykis. Nagrinėjama, kiek savimonė ir saviugda yra svarbūs socialinio ir aplinkos sąmoningumo aspektai. Atliekant kiekybinį tyrimą buvo taikomas „sniego gniūžtės“ atrankos metodas su pagrindine grupe, buvo užpildyti 2033 klausimynai. Remiantis rezultatais nustatyta, kad aplinkosauginis sąmoningumas ir tvarumo siekimas yra vartotojų elgsenos diferencijavimo kriterijus, pagal kurį galima išskirti tris skirtingas vartotojų grupes: sąmoningi, tvarumo siekiantys vartotojai, dvejojantys vartotojai ir riziką suvokiantys, įgalinti vartotojai. Visų trijų vartotojų grupių atveju nustatytas statistiškai reikšmingas ryšys tarp savimonės ir saviugdos svarbos suvokimo, kuris atskleidė, kiek reikšmingos šios kompetencijos sąmoningo ir tvarumo siekiančio elgesio formavimosi procese. Tyrime pateikti konkretūs pasiūlymai, kaip tinkamai ugdyti saviugdą ir savimonę, siekiant stiprinti aplinką tausojantį ir tvarų vartotojų elgesį.

Reikšminiai žodžiai: tvarumas; sąmoningumas; saviugda.