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## ADOPTING THE ESG CONCEPT INTO THE UNIVERSITY ECOSYSTEM FROM A GENERATION Z PERSPECTIVE

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**ABSTRACT:** The aim of this article is to indicate the benefits resulting from the potential of pro-environmental expectations of Generation Z towards universities, which, as educational institutions, should be a model of responsible conduct in accordance with the ESG message. The authors used a sequential explanatory strategy with a literature review method and a diagnostic survey using the user-centric CAWI internet survey method. A practical conclusion was that the functioning of universities should be consistent with the idea of sustainable development and ESG guidelines if they want to maintain the authority of educational guides for Generation Z. Universities should take measures to reduce CO<sub>2</sub> emissions, implement zero waste policies, invest in renewable energy technologies, and intensify the promotion of diversity, inclusion and active involvement in local community initiatives. The originality of the research is based on the research covering the expectations of Generation Z representatives regarding the functioning of universities. The research was limited by time and budget. In the future, the research will be repeated, including the perspective of representatives of academic staff and with a broader impact on European countries.

**KEYWORDS:** sustainable development, ESG, Generation Z, university management

## Introduction

The ESG (Environment – Social responsibility – Governance) concept is based on three pillars: environmental, social and corporate governance, integrating aspects of sustainable development into management and strategic decision-making by managers of organisations regarding their future and development. ESG assumptions reflect a holistic approach to management, which takes into account both short- and long-term impacts of the organisation's activities on the environment. ESG helps institutions adapt their activities to global standards of social responsibility, which is particularly important in the context of growing ecological and social awareness among stakeholders (Ejdys & Szpilko, 2022). Against this background, the introduction of ESG into university management (Christie, 2024; Chankseliani & McCowan, 2020) may contribute, in relation to the pillars of the concept, to:

- Increasing environmental efficiency – by saving energy, reducing waste and promoting sustainable practices on campuses.
- Strengthening social involvement – activities for inclusiveness, equal opportunities, and support for local communities.
- Improving corporate governance – transparent management, financial responsibility and promoting ethical standards.

The world is changing at an ever-increasing pace, and what we know today about the negative impact on the environment can still be turned into good. The literature shows that the reorientation of university programs toward the ESG is becoming more common – this applies to both teaching and operational management (Solís Espallargas et al., 2023; Wang et al., 2024; Sharma et al., 2022). Sustainable and regenerative development must move beyond mission statements to produce real, measurable outcomes. Education – both formal and informal – plays a vital role. Schools and universities should not only build internal expertise but also share it by implementing and openly reporting strategies aligned with ESG principles. The ESG principles emphasise the importance of long-term values related to the environment, society and governance. These commitments should be verified and made available to the community to enable informed choices, such as regarding work, education or consumption. Every offering involves an environmental footprint, the minimisation of which, especially the carbon footprint, is crucial to sustainable development. Universities play a key role in preparing mid- and senior-level staff for responsible design, product development, service delivery and management in the future (Sheehan et al., 2022). Accordingly, they should include in their curricula courses and subjects that raise awareness of the importance of sustainable development and methods of implementing and managing it in accordance with ESG guidelines (Žalėnienė & Pereira, 2021). In addition, universities themselves, as educational institutions, should apply these guidelines, thereby setting an example of responsible action (Bice & Coates, 2016). Research shows that the integration of ESG principles in higher education fosters the development of social and environmental competencies that are crucial for future leaders and managers (Strandberg, 2015; Chineme et al., 2019). In addition, transparent reporting of ESG activities by universities increases their credibility and influences the choices of students and other stakeholders (Raji & Hassan, 2021). The university's offerings are primarily aimed at the Z generation, who value openness, entrepreneurship, diversity, environmental concerns and community involvement (Djafarova & Fouts, 2022). With changing demographics and increasing competition for the best candidates, universities are increasingly integrating sustainability and ESG principles into their branding strategies (O'Sullivan et al., 2024). Authentic implementation of these principles fosters not only a positive image but also builds loyalty in the academic community, minimising the risk of greenwashing (Lakhno, 2024). Generation Z can have a chance to influence the defence of the planet (Pradeep & Pradeep, 2023; Rambabu et al., 2021). In this context, the authors believe it was worth analysing the profile and functioning of Generation Z in terms of educational choices. Due to the area of consideration adopted in this work, referring to potential and current students, the further part of the considerations focuses on people born after 1995, i.e. Generation Z.

The article consists of a review of the literature on the ESG concept, its application in organisations, including universities, and also focuses on the research conducted so far in relation to Generation Z and their consumer decisions. The next part presents the research methodology, the results of the primary research and the conclusions leading to the indication of further areas of research.

## An overview of the literature

Sustainable development is not only about the reduction of negative impact on the environment (Sachs et al., 2022). It begins to become a possibility for further steps in the progress of civilisation (Ozili & Iorember, 2023). To achieve sustainable development, three key elements must be consistent: economic growth, social inclusion and environmental protection (Ośrodek Informacji OZN, 2024). Taking action must be a priority for entities that are part of interstate and state structures, individual organisations, enterprises and institutions (Ruggerio, 2021; Korzeb et al., 2024).

Greening the economy is a process in which there is an increased emphasis on activities aimed at protecting the environment, sustainable management of natural resources and reducing greenhouse gas emissions (Mikhno et al., 2021). Meanwhile, key ESG greening trends include:

- Increasing share of renewable energy sources (RES): solar and wind energy is a central element of the CO<sub>2</sub> emission reduction strategy. Organisations that increase the share of RES in the energy mix can gain a competitive advantage and gain recognition in the eyes of stakeholders (Zioło et al., 2023).
- Transforming the circular economy: promoting maximum use of raw materials through recycling, reusing and refurbishing products (Geissdoerfer et al., 2017). Organisations, especially companies implementing the principles of the circular economy, can benefit from reducing the costs of raw materials and improving their image.
- Innovations in ESG reporting: digital tools and technologies such as blockchain enable transparent and reliable reporting of ESG data, which increases stakeholder trust (Kamińska-Witkowska & Matuszak-Flejszman, 2023).

Those actions also concern universities. Their contribution can also be seen in the greening processes. Pillars of ESG start with increasing environmental efficiency by infrastructural changes in their buildings, such as energy-efficient lighting (Shao et al., 2023) or waste management activities (Ottoni et al., 2021). Another pillar concern is strengthening social involvement by implementing inclusiveness and equality practices (Davis et al., 2024) or supporting local societies, as can be seen at the University of Leeds. The third pillar of ESG is corporate governance, which should be embedded by transparent management (Zafra-Gómez et al., 2023), responsible financial decisions (Jain et al., 2019) or ethical standards (Gichuru, 2023).

Institutional theory helps with understanding the concept of ESG impact on strategies and operational management in organisations (Galleli & Amaral, 2025). Considering the ESG principles, it is essential to align all institutional processes with the overarching concept. All of those actions are reviewed by stakeholders (Dmytriiev et al., 2021).

One of the stakeholder groups is definitely consumers, including those entering the shopping market and increasingly making conscious consumer decisions. This applies primarily to the youngest generations of adults, i.e. those born after 1995, Generation Z (Seemiller & Grace, 2019) – present and future students (Hasan et al., 2024). How their presence will change the world, we will find out in a few years. Today, we can already say that it will be a world of bits. The increasing role of technology will make it necessary to be constantly online (hyperconnected), which is in line with the marker of the Gen Alpha generation (born after 2013) (Thomas et al., 2021). In terms of ecology and sustainable development, this path is inscrutable. Perhaps we will encounter an even greater determination to protect the Earth than Generation Z expresses. This is the first generation that is so aware of ecological changes and the negative impact of humans on the planet. That is why Generation Z is also defined as the Hopeful Generation; Delta Generation – the generation of change (Walker, 2020), a counterweight to the destructive millennials and Founders, the generation that has the chance to rebuild the planet (Gomes et al., 2023). This is also a generation that currently plays an important role in the higher education system (Aleixo et al., 2021). Their choice of fields of study and the universities they want to associate with also has an impact on the development of these entities (Kobylińska et al., 2024).

## Research methods

The presented part concerns the methodology of empirical research on the indication and assessment of the benefits arising from the potential of attitudes and choices of Generation Z in the student group reflecting the values of the sustainable development concept and ESG prerogatives, conducted from December 2023 to May 2024. The aim of the study was to diagnose the connections between Generation Z representatives' declarations regarding their knowledge of pro-environmental terminology (sustainable development and ESG guidelines) and Generation Z representatives' formulation of expectations towards universities as places for acquiring knowledge. A sequential explanatory strategy was used to achieve the research objective. In accordance with the research rigour, the research subject was assumed to be representatives of Generation Z who are current and/or potential students of universities operating in Poland in the years 2023–2024, and the research subject was assumed to be expectations towards universities as places of acquiring knowledge. The study treated Generation Z as a whole without detailing it into specific age subgroups. Consequently, two research questions were adopted:

- RQ1 – Do Generation Z know and understand pro-environmental terminology?
- RQ2 – whether and what expectations identified with the area of sustainable development are expressed towards the university by its stakeholders representing Generation Z?

In the next step, an inductive evidence model was adopted, which resulted in the formulation of research hypotheses.:

- H1 – Generation Z, familiar with pro-environmental terminology, prioritise the concept of sustainable development and ESG guidelines.
- H2 – Generation Z representatives, aware of the essence of the concept of sustainable development, have strictly defined pro-ecological, social and organisational expectations towards the universities where they want to study.

Verification of the hypotheses required collecting data from primary sources. The population adopted for the study was composed of people aged 13 to 27, in accordance with the age limits for Generation Z, who lived in Poland in 2023. The unit of the study was a teenage or adult person interested in studying or who was a student at a university operating in Poland in 2023, and who used the Internet at least once in the 3 months preceding the study. Due to the limited time of the study, budget resources and the real possibility of examining the entire population, the study involved representatives of the group in the form of a study sample, the minimum size of which was determined using the formula with a known fraction size:

$$n_{min} = NP[\alpha^2 \times f(1 - f)] / [NP \times e^2 + \alpha^2 \times f(1 - f)], \quad (1)$$

where:

$n_{min}$  – means minimum sample size,

NP – size of the study population,

$\alpha$  – confidence level for results,

f – fraction size,

e – assumed maximum error.

The basis for the calculations was the size of the population, which, according to the Central Statistical Office data as of 31.12.2022, amounted to 5,757,741 people. Taking into account the distribution of proportions from previously conducted studies on the use of the Internet by representatives of Generation Z, the fraction factor  $f = M/N$  was assumed as 0.6 for people aged 13–27 regularly using the Internet and 0.4 for the rest, with a random error of 5% and a confidence level of 0.95. After performing the calculations, the minimum sample size was obtained at the level of  $n_{min} = 369$  units. Due to the lack of a sampling frame in the collection of units for the study, the method of non-random selection of typical units was used in accordance with the assumptions of the study. The suggested age range for participants was 13 to 27, with the aim of reducing the likelihood of errors in the study guidelines.

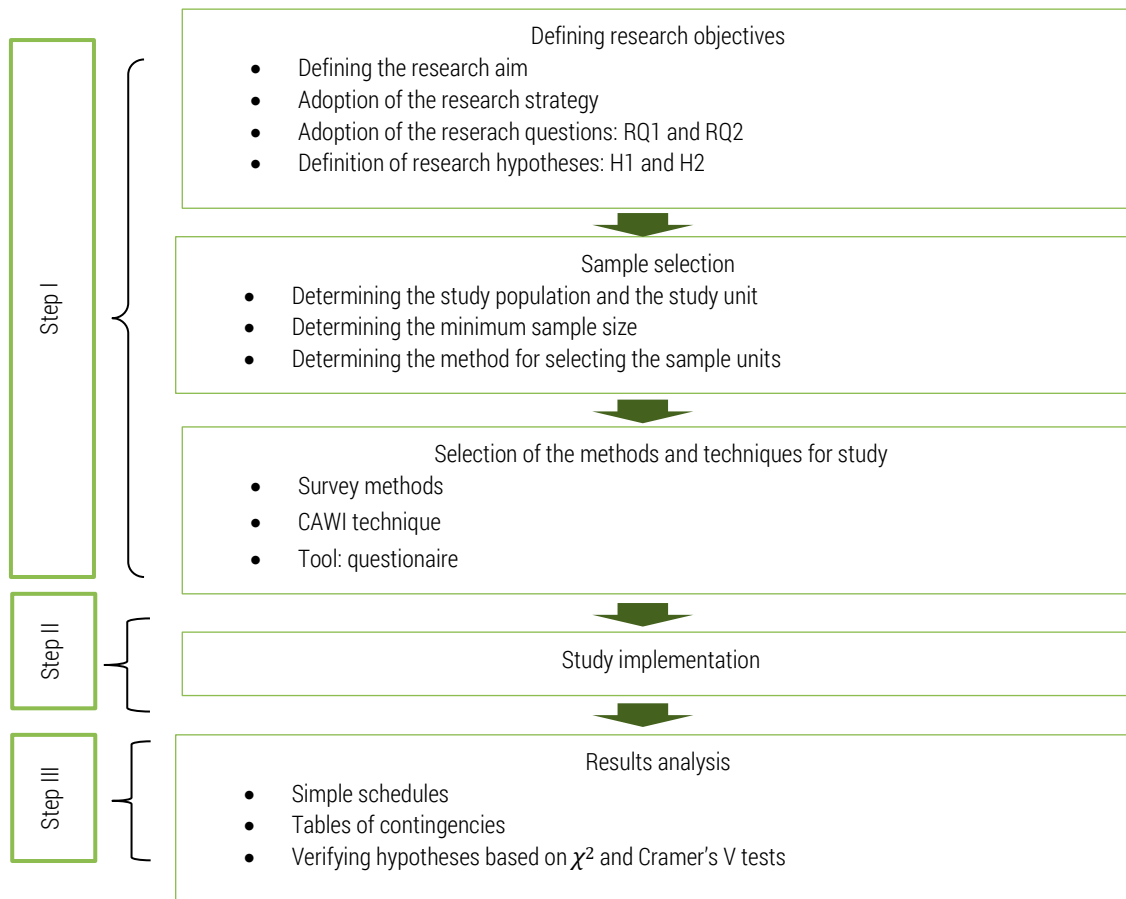


Figure 1. Research program scheme

In the process of collecting the material, a diagnostic survey was used with the “user-centric” CAWI (Computer Assisted Web Interview) internet survey method, with a measurement tool in the form of a standardised questionnaire consisting of closed questions based on the Rensis Likert scale of attitudes. The questionnaire was disseminated using social networking sites. This approach was dictated by the speed of reaching representatives of the Z population.

After the data collection, aggregation and coding stages in SPSS (Statistical Package for the Social Sciences), a three-step analysis was carried out. This process began with the verification of the compliance of the studied sample with the studied population based on the  $\chi^2$  statistic:

$$\chi^2 = \sum_{i=1}^r \frac{(n_i - np_i)^2}{np_i}, \quad (2)$$

where:

$p_i$  – is the probability that feature X takes a value belonging to the interval of class “i”,  
 $np_i$  – is the number of units that should be in the i-th interval.

Assuming that the statistic has a  $\chi^2\alpha$  distribution with  $k = (r - 1)$ , where:  $k$  denotes the number of degrees of freedom and  $r$  is the number of class intervals. In turn, the empirical value of the  $\chi^2$  statistic is calculated from the data obtained from the study. The form of the critical set:  $P(\chi^2 < \chi^2\alpha) = \alpha$ , where  $\chi^2\alpha$  is the critical value determined from the tables of  $\chi^2$  distributions for  $k = r - 1$  degrees of freedom and  $p = \alpha$ .

In the next step, an analysis of simple distributions of response variants and an analysis using descriptive statistics parameters were conducted. Then, where possible and logically justified, contingency tables were prepared, and correlation analysis was conducted in order to determine the possible existence of statistically significant relationships between selected variables (independent

and dependent) and thus verify the research hypotheses. Each time, the contingency table for a given pair of variables was, in accordance with the statistical analysis procedures, the basis for verifying the null hypothesis (H0) about the existence of potential stochastic independence between the selected variables X and Y and the alternative hypothesis (H1), accepted in the case of rejecting the null hypothesis (H0) in accordance with the formula:

$$\begin{aligned} H_0 : P\{X = x_i \wedge Y = y_j\} &= P\{X = x_i\} \cdot P\{Y = y_j\} \\ H_1 : P\{X = x_i \wedge Y = y_j\} &\neq P\{X = x_i\} \cdot P\{Y = y_j\} \end{aligned} \quad (3)$$

The basis for verifying the hypothesis H0 about the stochastic independence of variables was the value of the statistic obtained from the formula:

$$\chi^2 = \sum_i^r \sum_j^s \frac{(n_{ij} - \tilde{n}_{ij})^2}{\tilde{n}_{ij}} : \chi_{(r-1) \cdot (s-1)}^2, \quad (4)$$

where:

$n_{ij}$  – empirical conditional numbers resulting from the contingency table,

$\tilde{n}_{ij}$  – theoretical conditional counts that could appear in the table if the features were independent.

The V-Cramér coefficient was used to indicate the level of dependence.

$$V = \sqrt{\frac{\chi^2}{n \cdot \min(r-1, k-1)}}, \quad (5)$$

where:

V – is the V-Cramer coefficient between two variables,

$\chi^2$  – result of the  $\chi^2$  test for a pair of variables,

n – number of observations,

r – number of levels of one variable,

k – number of second variable,

$\min(r-1, k-1)$  – the value of the two (r-1) or (k-1) is chosen, whichever is smaller.

To test the statistical significance of the relationship between selected variables, statistical significance was verified for the indicated variables, and the value of the asymptotic significance parameter was checked to see if the  $\chi^2$  statistical value of a given pair of analysed variables was less than 0.05. If so, the observed relationship between variables was considered statistically significant. The results and conclusions formulated from the sample could be considered representative and transferred to an inference about the entire population.

## Results of the research

Open access to the questionnaire on social media resulted in the collection of research material from 927 respondents, which was a larger number than initially expected. Among the respondents, the majority were women (51.9% of respondents) compared to men (48.1% of respondents). In terms of age, the largest group were people aged 23-27 (37.2%). There were slightly fewer respondents aged 18-22 (31.5%) and 13-17 (31.3%). The vast majority of respondents had secondary education (58.4%). More than half of the respondents did not have student status but would like to study in the future (53.5%), compared to those who were students (46.5%).

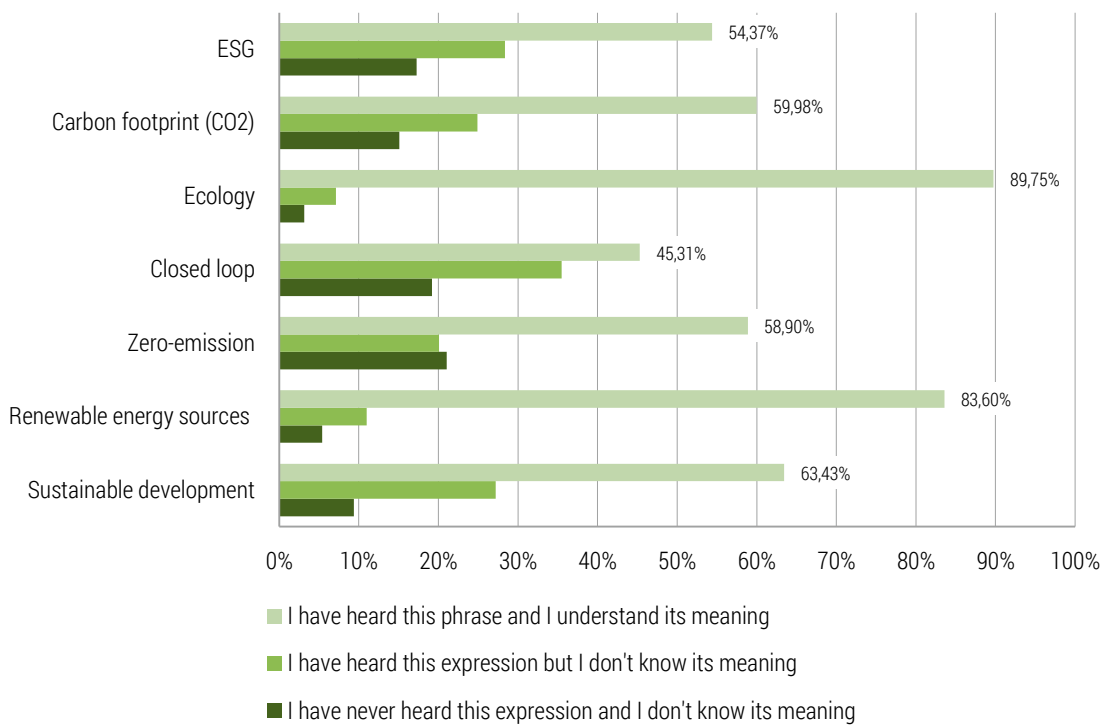
The values of the gender and age variables obtained from the study sample were compared with the distributions characterising the Generation Z population, thus confirming the representativeness of the study sample in relation to the population (Table 1).

**Table 1.** Confirmation of the compliance of the studied sample with the population  $\chi^2$  significance test (n=927)

Variable	Real $\chi^2$ value	Theoretical $\chi^2\alpha$ value	Test execution $\chi^2 < \chi^2\alpha$
Gender	3.271	3.841	matching
Age	3.467	5.991	matching

$\alpha$  – confidence level

Environmental awareness is one of the spheres of human perception. Therefore, the first point of analysis of the obtained research material was the analysis of the degree of knowledge of terms identified with the area of pro-environmental issues. According to the declarations (Figure 2), the respondents admit that they have heard and understand the meaning of the term sustainable development (63.4%), which ranks 3rd in terms of recognition and understanding after ecology (89.75%) and renewable energy sources (83.60%). Lesser-known terms include carbon footprint (59.98%), zero-emission (58.90%) and ESG (54.37%). The least recognised term in this ranking is closed loop, which almost half of the respondents have heard about and know its meaning (45.31%), while every third respondent admits that they have only heard about it but do not know its meaning (35.49%).

**Figure 2.** Knowledge of pro-environmental terms in % (n=927)

Due to the direction of the considerations included in the article, the priority treatment of the concept of sustainable development and ESG guidelines was compared with other pro-environmental terms known to the respondents. According to the analysis, the more often the respondents know pro-environmental terminology, the more often they give priority to the concept of sustainable development and ESG guidelines (Table 2), which allows us to confirm hypothesis H1.

This approach is reflected in the expectations of Generation Z representatives towards the university where educational services are offered. Generation Z respondents declare that when looking for information about the university's offer and how it operates, they have specific expectations towards the university as an institution and place of learning, which can be grouped in terms of the concept of sustainable development and in accordance with ESG guidelines and ranked in terms of importance using an arithmetic mean.

**Table 2.** Prioritising the concept of sustainable development and ESG guidelines over the knowledge of pro-environmental terms  $\chi^2$  (n=927)

Variable	Sustainable development			ESG		
	$\chi^2$	p	V	$\chi^2$	p	V
Carbon footprint	180.266	0.001	0.312	307.163	0.001	0.576
Ecology	218.938	0.001	0.344	59.172	0.001	0.179
Closed loop	103.695	0.001	0.236	76.943	0.001	0.204
Zero-emission	157.968	0.001	0.292	70.705	0.001	0.195
Renewable energy sources	235.561	0.001	0.504	24.840	0.001	0.116

$\chi^2$  – test value at  $\alpha=0,05$

p – asymptotic significance

V – The strength of the relationship calculated using V-Cramer

In the area of E – environmental – the most important issues for representatives of generation Z when considering the choice of a given university as a place of study are: the use of energy-saving light bulbs and the implementation of an energy-saving policy (4.56). Moderately important are activities related to collecting rainwater and using grey water in toilets and watering greenery (4.11), modernisation through building insulation – reducing heat consumption in winter (4.06) and greening buildings and reducing the use of air conditioners (4.04). The least important is obtaining energy from renewable sources by purchasing energy and using photovoltaic panels (3.88).

In the area of S – social responsibility – important issues for representatives of generation Z in the form of all participants of the study are national and international accreditations and certifications (4.34), the project for sustainable development implemented with partners in the form of companies and institutions (4.29), care for compliance with the principles of gender equality (4.28) and the offer of trips abroad thanks to academic exchange programs (ERASMUS) (4.23). Moderately important are issues related to the availability of sports infrastructure at the university (4.07), the possibility of participating in scientific circles (4.06) and the availability of a university unit of psychological support (4.04). The least important areas are related to the offer of support in the field of internships and student placements (3.95), respect for diversity and elimination of forms of discrimination (3.94), high position in university rankings (3.88), the existence of a unit dealing with the issues of people with disabilities (3.87) and access to healthy food (canteen/food points/vending machines/drinking water) (3.51).

In the G area – corporate governance – the most important issue for representatives of Generation Z, in the form of all participants of the study, is the possibility of studying in the field of ecology, circular economy and ESG (4.15). Moderately important are issues related to the aesthetics and modernity of technological equipment of lecture halls and laboratories (4.09), the location of green zones of silence and relaxation in the university (4.05) and the accessibility of the university infrastructure (passages/ramps/elevators), taking into account the needs of people with disabilities (4.02). The least important areas are those related to waste segregation – separators placed in many places on the campus (3.98), the university's digital twin (integrated website) (3.91), navigation around the university using a voice system/Braille subtitles/signs for the visually impaired (3.89), monitoring and publishing carbon footprint indicators and corrective actions (3.88), taking into account the voice of students in decisions made at the university (3.76) and the possibility of remote participation in classes (3.68).

To sum up, the detailed analysis presented above indicates that the answer to question RQ2, which states: "What expectations identified with the area of sustainable development are expressed towards the university by its stakeholders, who are representatives of Generation Z?" is affirmative. Yes, the participants of the study who are representatives of Generation Z as stakeholders have strictly defined expectations identified with the area of sustainable development, which they express towards the university. The most important expectations towards the university as an institution and place of study for representatives of Generation Z in the form of all participants of the study before enrolling

in studies are identified with the area of E – environmental – environment (4.13). In second place are those elements related to S – social responsibility (4.04). And in third place is G – corporate governance – corporate order (3.94).

**Table 3.** Manifestations of the concept of sustainable development in relation to expectations towards the university as an institution and place of learning for representatives of Generation Z before enrolling in studies (n=927)

	Variable	Sustainable development		
		$\chi^2$	p	V
E – environmental	Obtaining energy from renewable sources (purchase of energy/photovoltaic panels)	177.110	0.001	0.309
	Using energy-saving light bulbs and implementing an energy-saving policy	80.166	0.001	0.208
	Modernization through building insulation – reducing heat consumption in winter	69.132	0.001	0.193
	Greening buildings and reducing the use of air conditioners	204.666	0.001	0.332
	Collecting rainwater and using grey water for toilets and watering green areas	203.578	0.001	0.331
S – social responsibility	Availability of a university psychological support unit	198.599	0.001	0.327
	Availability of sports infrastructure at the university	114.061	0.001	0.248
	Availability of healthy food (canteen/food points/vending machines/drinking water)	174.555	0.001	0.307
	Possibility of travelling abroad thanks to academic exchange programmes (ERASMUS)	219.046	0.001	0.344
	National and international accreditations and certifications	65.529	0.001	0.188
	High position in university rankings	141.289	0.001	0.276
	Offer of support for student internships and placements	70.284	0.001	0.195
	Possibility to participate in scientific circles	255.753	0.001	0.371
	The opportunity to participate in a project for sustainable development with partners in the form of companies and institutions	142.000	0.001	0.278
	Respect for diversity and elimination of forms of discrimination	96.495	0.001	0.228
	Ensuring compliance with the principles of gender equality	152.892	0.001	0.287
	The existence of units dealing with the issues of people with disabilities	235.595	0.001	0.356
G – corporate governance	Locating green zones of silence and relaxation at the university	108.417	0.001	0.242
	Possibility to study in the field of ecology, circular economy and ESG	151.329	0.001	0.286
	Digital twin of the university (integrated website)	85.630	0.001	0.215
	Possibility of remote participation in classes	115.707	0.001	0.250
	Aesthetics and modernity of technological equipment of the lecture hall and laboratories	243.186	0.001	0.362
	Accessibility of the university infrastructure (passages/ramps/elevators) taking into account the needs of people with disabilities	142.938	0.001	0.278
	Communication navigation around the university using a voice system/Braille subtitles/signs for the visually impaired	234.272	0.002	0.355
	Waste segregation – separators placed in many places on campus	94.155	0.001	0.225
	Monitoring and reporting of carbon footprint indicators and corrective actions	57.685	0.001	0.176
	Taking students' voices into account in university decisions	201.605	0.001	0.330

$\chi^2$  – test value at  $\alpha=0,05$

p – asymptotic significance

V – The strength of the relationship calculated using V-Cramer

In the context of such presented results, it would be worth examining the reasons for this state of affairs. There may certainly be many reasons, and among them, there may be a connection with the awareness of the significance and importance of applying the concept of sustainability. And it is this

prerogative that may shape the expectations towards the university as an institution and place of learning that representatives of Generation Z have before enrolling in studies. In order to verify this assumption formulated on the basis of hypothesis H2, with the content: representatives of generation Z aware of the essence of the concept of sustainable development have strictly defined pro-ecological, social and organisational expectations towards the universities where they want to study.

The existence of a relationship between the knowledge and understanding of the term sustainable development and the expectations towards the university as an institution and place of study of Generation Z representatives before enrolling in studies assigned to individual ESG areas is confirmed by the  $\chi^2$  independence test, with the strength of the relationship determined by Cramer's V (Table 3). According to the obtained results, in each of the areas studied, the assumption formulated in the form of hypothesis H2 was confirmed about the existence of a relationship between the awareness of the essence of the concept of sustainable development by Generation Z representatives and their expectations towards the university where they want to study. Therefore, it can be argued that Generation Z representatives, who are aware of the essence of the concept of sustainable development, make conscious decisions when choosing a university as a place of education.

## Conclusions

In summary, the conducted analysis allowed us to achieve the aim of the study in the form of formulating a diagnosis that there are connections between the declarations of Generation Z representatives regarding their knowledge of pro-environmental terminology (sustainable development and ESG guidelines) and the formulation of expectations by Generation Z representatives towards universities as places of acquiring knowledge. The more information respondents have on the issues of sustainable development and ESG guidelines, the more demanding they are regarding the fulfilment of pro-environmental requirements by universities. Therefore, the conclusion is that universities should implement solutions consistent with the idea of sustainable development and ESG guidelines not only due to the applicable legal requirements, mainly in the reporting aspect, but also due to the necessity of taking into account the expectations of the main subject of activities, i.e. the student – client – representative of Generation Z.

The aspect of education in the spirit of ESG and building social awareness is also important. Research shows that young generations are increasingly oriented in the context of the negative impact of civilisation on the environment. However, they should also expand this knowledge to older generations, which may also be reflected in the offer of universities for recipients of the so-called "silver generation" (Ma, 2022). Hence, in the spirit of the ESG concept, i.e. social responsibility and inclusiveness, it will be important to build intergenerational connections. Universities should also promote and encourage more responsible attitudes through strategies of lifelong learning. In addition, through their own actions, setting a good example, they should respond to the needs of society and use the ESG concept in their development activities. This is certainly supported by various funding programs, also co-financed by the EU, which will certainly contribute to increasing the share of ESG initiatives in universities, just as it is the case in enterprises.

Considering the demographic changes related to the demographic decline in Poland, universities should also prepare to increase their competitiveness. Formulating appropriate study programs or facilities for potential students is certainly one of the pillars of this preparation. However, it is also necessary to remember to respond to the very specific needs of future students – clients. As research indicates, universities should also adapt to these requirements in this respect, mainly in the context of the "green economy".

The importance of credibility lies in the fact that universities teaching about sustainable development and ESG should themselves adhere to and act in accordance with ESG guidelines. In particular, universities should take action to reduce CO2 emissions, implement zero waste policies, and they should also invest in renewable energy technologies and intensify the promotion of diversity, inclusion and active engagement in local social initiatives. Furthermore, universities should emphasise transparency in their actions, both environmental and social, to gain the trust of stakeholders, as well as introducing subjects, courses and training related to ESG in a consistent and determined manner. The implementation of such actions should be communicated intensively by the universities to build

a positive image as educational institutions that are engaged and committed to the needs and expectations of Generation Z. Further research could indicate in which areas universities could apply the ESG concept in such a way that it brings financial benefits, but also how to strategically build the image of the university for the purposes of future recruitment. It would also be good to include the perspective of academic staff on the issue of the practical application of ESG in Universities. In the future implementation of the research will take into account the perspective of representatives of academic staff and relate the perspective of European countries.

### The contribution of the authors

Conceptualisation, M.B. and K.K.M.; literature review, M.B.; methodology, K.K.M.; formal analysis, M.B. and K.K.M.; writing, M.B. and K.K.M.; conclusions and discussion, M.B. and K.K.M.

The authors have read and agreed to the published version of the manuscript.

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## ADAPTACJA KONCEPCJI ESG W EKOSYSTEMIE UCZELNI WYŻSZYCH Z PERSPEKTYWY POKOLENIA Z

**STRESZCZENIE:** Celem artykułu jest wskazanie korzyści płynących z potencjału pro-środowiskowych oczekiwań pokolenia Z względem uczelni, które jako instytucje edukacyjne powinny być wzorcem odpowiedzialnego postępowania zgodnie z przesłaniem ESG. Realizacja celu była możliwa dzięki zastosowaniu sekwencyjnej strategii eksplanacyjnej z metodą przeglądu literatury oraz sondażu diagnostycznego metodą ankiety internetowej „us-er-centric” CAWI. Efektem procesu badawczego jest konstatacja praktyczna, iż funkcjonowanie uczelni powinno być zgodne z ideą zrównoważonego rozwoju i wytycznymi ESG, jeśli uczelnie chcą utrzymać autorytet przewodników edukacyjnych dla pokolenia Z. Oryginalność badań osadza się na objęciu badaniami oczekiwań przedstawicieli pokolenia Z względem zarządczego funkcjonowania uczelni. Badania były ograniczone czasem i budżetem. W przyszłości badania będą potórzzone z ujęciem szerszego oddziaływania o kraje europejskie.

**SŁOWA KLUCZOWE:** zrównoważony rozwój, ESG, pokolenie Z, zarządzanie uczelniami