

Generation Z as a critical question mark for sustainable tourism – An exploratory study in Portugal

Micaela Pinho and Sofia Gomes

Abstract

Purpose – Much has been speculated about the role that Generation Z will play in achieving more sustainable development. The tourism sector gains a special role in this discussion. On the one hand, tourism, due to its growing importance, has had a significant impact on environmental sustainability. On the other hand, Generation Z will be the largest group of travellers ever in the future. In this context, the objective of the present study is to explore the interest of young Portuguese generation Z in sustainable development goals (SDGs), tourism sustainability (TS) and their pro-environmental habits and how these categories influence the choice of sustainable tourism destination.

Design/methodology/approach – An online questionnaire was used to collect data from a sample of 305 young Portuguese. The quantitative analysis was performed with the application of the partial least square (PLS) model.

Findings – Overall, the authors found that despite our respondents showing an interest in the SDGs the same interest is not true for tourism. Although most respondents are concerned about choosing a sustainable destination, they do not care about keeping destinations sustainable, nor do they have pro-environmental habits.

Originality/value – This study presents the first evidence of the attitudes, beliefs and pro-environmental habits of Portuguese Gen Zers and their potential contribution to TS.

Keywords Generation Z, Sustainable development, Tourism sustainability, Pro-environmental behaviours

Paper type Research paper

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Introduction

Sustainable development has become a pressing issue nowadays and the main challenge for policymakers. Currently, it is no longer possible to ignore the harmful consequences that large-scale economic growth has had on finite Earth. This on-going dilapidation and depleting of natural capital have, and will continue, to compromise human well-being. Today, more than ever, the harmful relationship that intense economic activity has on a finite Earth is evident. Every day reports show environmental changes, on a global scale, from global warming to species extinction. The core question at the heart of sustainable development is how to allocate the finite resources of the planet to meet the needs of the present, without compromising the ability of future generations to meet their own needs (WCED, 1987). Sustainable development goes beyond economic concerns encompassing social and human dimensions. All these concerns were reflected in the United Nations (UN) resolution entitled “Transforming our world: 2030 Agenda for Sustainable Development” comprising 17 sustainable development goals (SDGs) (UN, 2015). This agenda is ambitious as it seeks to eradicate poverty and hunger at the same time as it seeks to achieve gender equality, reduce inequalities, health, sustainable production and consumption, climate actions, and even achieve peace, justice, and effective institutions. Notwithstanding the

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commitment of the UN and all theoretical advances that have been achieved, in this matter, by economists (Nodhaus and Tobin, 1972; Ostrom, 1990; Arrow *et al.*, 2012; Polasky *et al.*, 2015; Managi and Kumar, 2018), natural scientists (Costelo *et al.*, 2016, Tallis *et al.*, 2018) and other social sciences, the path to achieving sustainable development requires a mind-set change. People's awareness of environmental issues has to change and with that human behaviour and actions in their relationship with the environment.

Unlike previous generations (who successively postponed this concern because they were focused on economic growth), today's young people, born after 1994, christened Generation Z (Gen Z) seem more aware and concerned about the depletion of natural resources, often claiming that there is no planet B. Gen Z's attitudes, beliefs and behaviours have been shaped by issues such as globalization, terrorism, the 2008 financial crises, technology and the Covid-19 pandemic. Understanding this generation is paramount since, in 2020, it has become dominant in the world, representing 32% of the world's population, greatly surpassing the Millennium or Baby Boomer generation (WEF, 2018). Furthermore, by 2030, this generation will be the central workforce in society and will play a major role in creating a sustainable future and achieving SDGs. Thus, Gen Z is an indispensable and strategic component of building a sustainable future (Yamane and Kaneko, 2021). Moreover, Gen. Z enters the group of youth travel that has become one of the fastest-growing segments of international tourism, representing more than 23% of the over one billion tourists travelling internationally each year, generating more than €250 billion (WTO, 2016). The generational shift represents a major force that will shape the future of tourism (Corbisiero and Ruspini, 2018). As recognized by the UN, these young people are a major force for development and social change and as such have the potential to drive sustainable development in the tourism sector (WTO, 2016).

The debate around the potential generational contribution to tourism sustainability (TS) is of the utmost importance for two main reasons. First, tourism is a sector with social, economic and environmental impacts on a global scale (Hall and Lew, 2009). Tourism, due to its exponential growth in recent years, contributed to the tragedy of the commons, seriously compromising sustainable development. Indeed, the tourism sector has nowadays a chronic problem of balance between the environment and the economy. Second, tourism has the potential to contribute, directly or indirectly, to all of the 17 SDGs. TS is firmly positioned in the 2030 Agenda – it has been included a target in the eighth goal (inclusive and sustainable economic growth), twelfth goal (sustainable consumption and production) and fourteenth goal (sustainable use of oceans and marine resources).

Although the hope placed on generation Z to change the designs of sustainability seems consensual, the truth is that so far few studies have investigated the effective compromise of members of Gen Z with pro-environmental habits, their involvement in achieving the UN SDGs, in general, and TS, in particular (Haddouche and Salomone, 2018; Globetrender, 2021; Hansen and Wyman, 2021; Parzonko *et al.*, 2021; Görpe and Öksüz, 2022). However the results of these studies are contradictory. Moreover, it is not known whether their involvement with sustainable causes influences the choice of a tourist destination. Thus, the study here reported seeks to fill the existing literature gaps. The main purpose of this paper is to analyse the support of the TS through generational lenses. We explore the attitudes and beliefs of young Portuguese about the SDGs, sustainable tourism and their daily pro-environmental habits, and whether these beliefs and behaviours impact their choice of a sustainable tourist destination.

This article presents the first evidence on whether the Portuguese Gen Z will contribute to the much-needed behavioural change in tourism (and not only) that will lead to greater sustainability in the sector.

Theoretical background

Generation Z their characteristic and sustainable values

Generation Z youth deserve particular attention as they were born and raised in a very different world from previous generations. They are the first generation of the twenty-first century and a big

challenge for researchers and trend forecasters. In recent years, increasing literature emerged concerning the distinctive features of this generation (see [ETC, 2020](#); [Çalışkan, 2021](#), for a review). According to the generational theory, Generation Z, also called Baby Boomers or iGeneration, includes individuals born after 1994 ([Williams et al., 2010](#); [Dabija et al. 2020](#)). The current youth of this generation developed personalities and life skills in a socioeconomic environment marked by chaos, uncertainty, volatility and complexity ([Sparks and Honey, 2014](#)). They have been shaped by turbulent times. It is a generation deeply marked by the world events they have experienced. These young people experienced in a few years several economic, human, social and health events, namely, terrorism, the 2008 financial crisis, the migration crisis, climate changes, the Covid-19 pandemic crises and currently a war. Never has another generation witnessed so many events and changes as this one. Generation Z has never known a world without serious problems. As a consequence of these exposures, there's evidence denoting that this generation feels profoundly anxious and distrustful ([Hertz, 2016](#)) as well as pessimistic about the future ([Corbisiero and Ruspini, 2018](#)). They have come of age in an era of economic decline, increased inequality, job insecurity and social media presence ([Robinson and Schänzel, 2019](#)) and as such, they crave safety and financial security ([Read and Truelove, 2018](#)). Moreover, these young adults belong to the first generation born in the digital world that lives and socializes online ([Reinikainen et al., 2020](#)). Hence their consumer behaviours and basic social values are to a great extent shaped by the Internet ([Goh and Lee, 2018](#)). They have specific needs for communication and consumption and, thanks to ubiquitous connectivity, have more in common with their international peers than any previous generation ([Corbisiero and Ruspini, 2018](#)). Indeed, Gen Z is the first truly global generation in the sense that they are connected across borders via social media and digital devices.

About four years ago, attention turned to this generation that began to be seen as the generation of hope that would contribute to a more sustainable world. This was triggered by a Swedish teenager – Greta Thunberg, who tirelessly protested in favour of the environment, blaming current political leaders for negligence against her generation. This unprecedented activism coming from a teenager suggests that Gen Z have global values and is increasingly conscientious about their actions. It is believed that this age group presents different patterns of behaviours, starting with being more pro-environmental. The concept of pro-environmental behaviour is defined in various ways ([Kollmuss and Agyeman, 2002](#); [Baum and Gross, 2017](#)). In this paper, pro-environmental behaviour was defined as a behaviour by which individuals consciously seek to minimize the negative impact of their actions on the natural environment, through engaging in positive environmentally friendly actions, such as recycling ([Byrne and O'Regan, 2014](#)), minimizing water and energy consumption ([Berardi, 2017](#)) as well as avoiding actions that harm the environment such as avoid the use of plastic and meat consumption, preference for using public transport ([Eriksson et al., 2008](#)) and for environmentally friendly brands ([Ramayah et al., 2010](#)).

There's increasing literature showing that Gen Z members are the most interested in incorporating sustainability into their activities ([Dabija et al., 2020](#); [Lazányi and Bilan, 2017](#)). Unlike their grandparents belonging to the baby boomers generation, their parents (Generation X), or their older siblings – Millennials, Generation Z members express a very keen interest in sustainable development and social responsibility ([Hansen and Wyman, 2021](#)) and tend to get involved in environmental protection actions ([Dabija et al., 2018](#)). They are aware that their decisions may affect other people and the environment or jeopardize future generations' access to resources similar to those available to current generations ([Dabija and Babut, 2013](#)). A survey across 20 countries (across the Middle East and North Africa, Europe, the Americas, Asia and Sub-Saharan Africa) revealed that the Gen Zers are not only aware of the environmental issues the world is faced with but also, consider the issues of poverty, inequality, unemployment and economy equally important and they view them like the ones that will grow increasingly relevant over their lifetimes ([SKG, 2020](#)).

Despite this growing literature and this widespread idea that generation Z will make a difference in environmental terms, it is still debatable whether these young adults are committed to pro-environmental behaviours. Some researchers even prove that age does not influence

pro-environmental behaviour (Gray *et al.*, 2019; Sargisson *et al.*, 2020). Some research found that environmental concerns and engagement in environmental behaviours were greater in older than younger generations (Grønhoj and Thøgersen, 2009; Wray-Lake *et al.*, 2010; Parzonko *et al.*, 2021). The analysis also revealed that Gen Zers declared mainly engaging in pro-environmental behaviours that are limited to their household and that did not require physical or cognitive involvement (Parzonko *et al.*, 2021).

Generation Z and tourism sustainability

Tourism is today one of the world's largest industries and one of its fastest-growing economic sectors. To figure out the economic importance and impact of tourism it is worth mentioning that before the advent of Covid-19 the number of tourist trips undertaken, each year, exceeded the world's population (Hall, 2015). In 2019, international tourist arrivals worldwide grew by 4%, a significant amount although lower than the 18% growth seen in the previous year (UNWTO, 2020). We would expect that after two years of severe restrictions on movements and accumulated savings, tourism will experience unprecedented growth in 2022 and beyond, although this figure may be revisited following the impact of the invasion of Ukraine by Russia and the rising inflation that dominates world economies. Due to the economic significance of tourism and its growth, there has been increasing literature highlighting several impacts of tourism at various scales (Hall, 2015; Rutty *et al.*, 2015; Scott *et al.*, 2016; Rasoolimanesh and Jaafar, 2017; Gosling *et al.*, 2018; Esfandiar *et al.* 2020) and drawing attention to its sustainability and the limits to its growth (Saarinen, 2015; Fodness, 2017; Hall, 2019).

For many countries, tourism is seen as a main driver of development. Tourism may have a positive economic impact on gross domestic product, employment and the trade balance but it may also have negative effects, particularly on the environment. Unplanned and uncontrolled tourism growth may result in external negative diseconomies – through negative and irreversible effects on the environment and societies, which can ultimately compromise the tourism sector. Therefore, since the environment is the major source of tourist products, it should be protected to perpetuate tourism growth and thus economic development in the future. For this, all tourism stakeholders have registered a growing concern for sustainability as a guiding principle to allow the integration of economic development with environmental and social aspects within tourism policy and strategy. In this regard, Portugal has taken significant steps. On the one hand, with the approval of the Tourism Strategy 2027, a commitment was made to make Tourism a hub for economic, social and environmental development throughout the territory, positioning the country as one of the most competitive and sustainable tourist destinations in the world (Turismo de Portugal, 2022). On the other hand, the Tourism + Sustainable Plan 2020–2023 and the adhesion of Portugal's National Tourism Authority (Turismo de Portugal, 2022) to the Global Sustainable Tourism Council (GSTC), to the Portuguese Pact for Plastics, to the Glasgow Declaration for Climate Action in Tourism and the Cancun Declaration of the World Travel and Tourism Council (WTTC) on the Equality and Leadership of Women in Tourism, constitute strong commitments aimed at strengthening the role of Tourism in Portugal, in building a better world for all (Turismo de Portugal, 2022).

The concept of TS dates back to the 90s. At the time, it was already understood as a tourism activity that respects and preserves natural, cultural and social resources in the long term and contributes positively and equitably to the economic development and to the development of the individuals, who live, work or reside in these areas (Council of Europe, 1997). The main idea of TS is to enhance the equality of and balance the present and future within the context of meeting the needs of today's visitor-host society (UNWTO, 1998). Since then, numerous highlights of characterizing TS have emerged in the literature (see Çalıřkan, 2021, for a review).

Linking TS and Gen Z are of utmost importance as these young adults will be the biggest driving force of tourism for years to come. Indeed, they will be the decision-makers in travelling in the future, and thus who should take responsibility for sustainability. Given the enormous responsibility that societies seem to have placed on these young adults, we wonder if they will be up to the

challenge. The few findings concerning the effective contribution of Gen Z to sustainable tourism are contradictory. On the one hand, surveys across the United Kingdom (UK), the United States of America (USA), Germany, China, United Arab Emirates and Australia found that 69% of Gen Z travellers felt strongly about responsible travel, i.e., they want to be more environmentally and socially conscious in their travel (Globetrender, 2021). An Italian survey found that the digital nature of Gen Z is eroding the mass tourism model since more informed members are more capable of recognizing the lack of authenticity of a tourism destination (Monaco, 2018). On the other hand, studies carried out in France, Turkey and the United Arab Emirates found that TS was not a key concept for Gen Z members (Haddouche and Salomone, 2018) and their behaviour was not aligned with TS (Görpe and Öksüz, 2022).

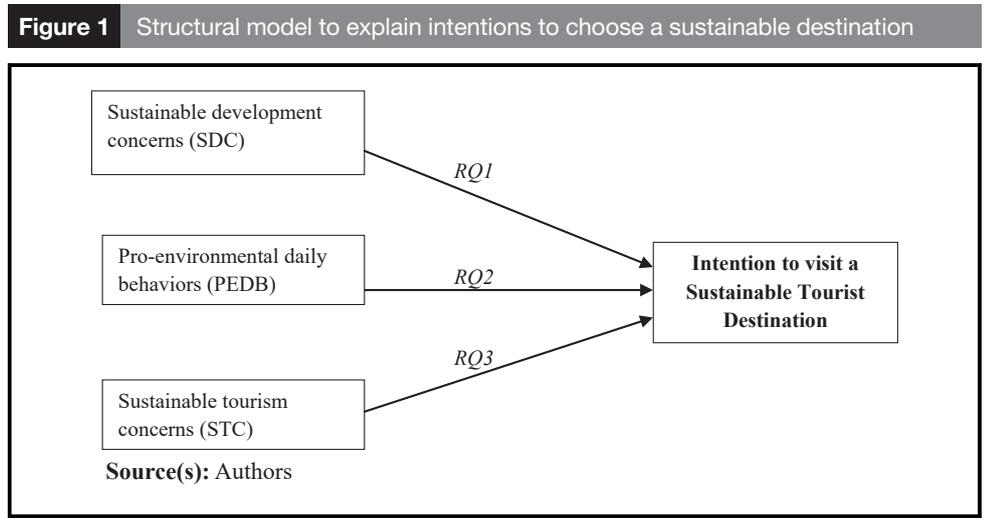
Based on the above literature we may conclude that this research topic on whether Gen Z engages in sustainable tourism development remains something of a puzzle for academics. Therefore, without a clear understanding of Gen Z sustainability attitudes, it is impossible to develop effective behavioural interventions aimed at triggering more environmentally sustainable behaviour among young tourists. Thus, we hypothesize that Portuguese Gen Z attitudes regarding sustainable goals, in general, pro-environmental behaviours, and concerns with sustainable tourism, in particular, can be important drivers in choosing a sustainable tourism destination. This paper aims to answer the following research questions, translated in the structural model presented in Figure 1:

- RQ1. Are Portuguese young people concerned about sustainable development and will this influence the choice of a sustainable destination?
- RQ2. Do young Portuguese people have pro-environmental behaviours and will this influence the choice of a sustainable destination?
- RQ3. Are Portuguese young people concerned with TS and will this influence the choice of a sustainable destination?

Methods

Data collection

Data were collected through an online questionnaire that was made available between February 2020 and July 2021 on social networks (Facebook, LinkedIn, Twitter and Google Plus) and spread through the personal contacts of the authors. The inclusion criteria were individuals living in Portugal and born after 1994. Participation was voluntary and explicit informed consent was given.



All potential participants were informed about the purpose of the research and anonymity was granted. The questionnaire was tested through a previous sample of ten participants of different ages to verify and analyse the overall degree of issue understanding and answer variability. The test of validity and reliability returned high internal reliability (Cronbach's alpha = 0.815).

Data measurement

The questionnaire contains four sections each composed of questions that measured the variables used in the present study.

Section 1. Collected respondents' demographic, economic mental health information and their intentions to visit a sustainable tourism destination. Demographic characteristics comprise age and gender. Respondent's opinion about the evolution of the economic situation (whether it will improve, stay the same or worsen) and how they view their future (whether with optimism, fear or pessimism) comprises the economic information. Finally, the dependent variable was measured by asking participants to indicate the level of importance on a 5-point Likert scale (1 – “nothing important” to 5 – “very important”) attached to the following factor when choosing a visit destination: “Sustainable destination, e.g., environmentally friendly”.

Section 2. Collected information about respondents' attitudes concerning SDG. They were asked about the importance attached to ten goals, used elsewhere (ETC, 2020): climate change and environmental protection, animal protection, justice, gender, racial and LGBT (lesbian, gay, bisexual, and transgender) equality, poverty and inequality, anti-corruption, and physical and mental health. Respondents answered on a 5-point Likert scale ranging from 1 – “Nothing important” to 5 – “Very important”.

Section 3. Collected information concerning respondents' daily pro-environmental habits. Respondents were asked how often they adhered to seven pro-environmental habits, developed and used elsewhere (ETC, 2020), such as recycling, use of public transport instead of personal transportation, choice of environmentally friendly brands, water, energy-saving and avoiding plastics and meat consumption. Participants answered on a 5-point Likert scale ranging from 1 – “Never” to 5 – “Always”.

Section 4. Collected information regarding participants' concerns with sustainable tourism. Participants should reveal their level of agreement on a 5-point Likert scale (1 – “totally disagree” to 5 – “totally agree”) with three statements, used elsewhere (ETC, 2020), comprising concerns with locals' well-being, avoiding crowding destinations and reducing and minimizing the environmental impact of air travel.

Details of the questions can be found in the first column of [Table A1](#), in appendix.

Data analysis

The descriptive statistics of the variables used in this study were performed through SPSS (25.0). The association between respondents' attitudes concerning SDGs, their daily pro-environmental habits and TS concerns, and the intention to select a TS destination was prosecuted using the partial least squares (PLS) methodology in the Smart PLS 3.0 software (Ringle *et al.*, 2019). The PLS method was also used to perform a confirmatory factorial analysis (CFA). The CFA was performed to evaluate the reliability and validity of the questionnaire design. The PLS methodology was chosen for two main reasons. First, due to the non-adjustment to the normal distribution of most of the items that constitute this instrument (Hair *et al.*, 2019). Second, the data were collected through a questionnaire, with multiple indicators associated with the latent variables (Ringle *et al.*, 2019). This method allows the combination of a factor analysis with regressions. The reliability of the instrument was evaluated through the composite reliability coefficients (CR) and its validity was tested through three measures (Hair *et al.*, 2019): (1) Cronbach's Alpha measurements; (2) convergent validity (average variance extracted – AVE > 0.5) and (3) discriminant validity tested by the Fornell-Larcker criterion. The PLS approach is applied in two phases. The first phase validated

the model through the PLS algorithm. The second phase tests the relationships between the variables using multiple linear regressions estimated by the ordinary least method square (OLS).

Results

Descriptive analysis

A sample of 305 Portuguese young members of Gen Z was obtained. In total, 386 responses were collected albeit only 305 (79%) were considered valid (questionnaires completely answered). The majority of respondents were female (63%) and the predominant age ranged from 19 to 21 years old. Roughly half of the young respondents (43%) think the economic situation is going to get worse compared to 20.3% that consider it will stay equal and 36.7% that think it will improve. Most participants (52.1%) face the future with fear while 44.6% feel optimistic.

For most respondents (60.1%) a sustainable (environmentally friendly) destination is considered a very relevant factor in choosing a travel destination. Besides, we realize that respondents attach great importance to SDGs (mean ≥ 4.5). The results also show that pro-environmental habits do not seem to be rooted among our respondents. Among the analysed habits, only recycling and reducing water and energy are the behaviours adopted frequently. Regarding tourism concerns, although respondents show concern for the well-being of locals when visiting a destination, they do not seem willing to avoid a mass tourism destination, nor to support additional taxation of air travel. A detailed description can be found in [Table A1](#), in appendix.

Results from linear regression analysis ([Table A2](#), in appendix) revealed that gender was statistically significant in explaining all the variables while age was only statistically significant in explaining the SDG in general. Indeed, women and older respondents revealed greater concerns with sustainable development, in general. Furthermore, women were also more concerned than men with TS, engage more often in pro-environmental behaviours, and are more willing to select a TS destination.

The PLS model

Model validation. The CFA model, [Figure A1](#) in appendix, shows that each item (question) of the questionnaire has a factor loading >0.5 confirming its reliability.

[Figure 2](#). Presents the PLS model resulting from the PLS logarithm. The latent variables are represented in circles and were measured by indicators represented in squares (explaining at least 50% of the variance of the latent variable with which they are associated). The predictive prediction is validated by the R^2 values shown in the latent variable circles.

[Table 1](#) summarizes the values of the individual reliability of each variable as well as the AVE and its square root, indicators of the convergent and discriminant validity, respectively. The evaluation of the PLS model reveals simultaneously high rates of reliability ($CR > 0.5$) and the existence of convergent (as $AVE > 0.5$) and discriminant validity. Thus, the model is reliable and has factorial convergent and discriminant validity. Following [Hall \(2019\)](#), the quality of the model fit was validated through the Chi-Square ($p = 0.078$), goodness-of-fit (0.98), the comparative fit index (0.89), and standard root mean square residual (0.097). The goodness-of-fit indices meet the reference value indicating that the estimated PLS model has a good fit.

Explanatory analysis. [Table 2](#) presents detailed results regarding the size and significance of the path coefficients, the coefficient of determination (R^2) of the endogenous latent variable, and the predictive relevance (Stone-Geisser Q^2) based on the cross-validated redundancy approach. The model is relevant to predict the dependent variable sustainable (intention to visit a sustainable tourist destination) since the predictive relevance is greater than zero ($Q^2 = 0.349$). The sample size is adequate (absolute values of the path coefficients are greater than 0.20). There are significant relationships between the latent variables, all of which are statistically significant for $p = 0.000$.

Figure 2 The PLS model

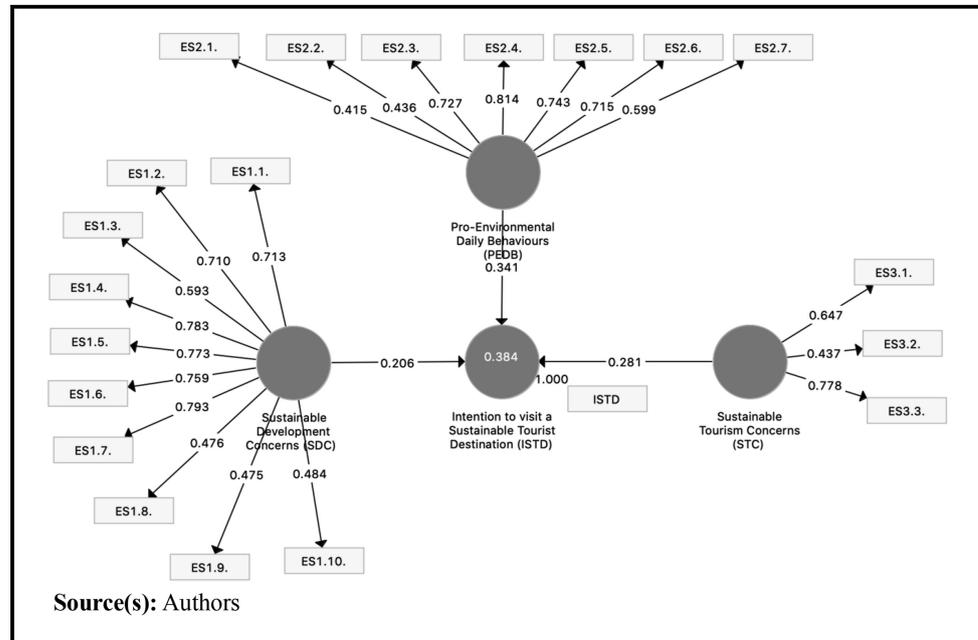


Table 1 Reliability of the variables (CR); AVE and AVE Square Root (in italic)

	<i>Ca</i>	<i>CR</i>	<i>AVE</i>	<i>(ISTD)</i>	<i>(SDC)</i>	<i>(PEB)</i>	<i>(STC)</i>
Intention to visit a Sustainable Tourist Destination (ISTD)	1.000	1.000	1.000	<i>1.000</i>			
RQ1: Sustainable Development Concerns (SDC)	0.870	0.883	0.547	0.375	<i>0.740</i>		
RQ2: Pro-Environmental Daily Behaviours (PEDB)	0.763	0.831	0.525	0.528	0.362	<i>0.725</i>	
RQ3: Sustainable Tourism Concerns (STC)	0.800	0.760	0.505	0.451	0.164	0.400	<i>0.711</i>

Source(s): Authors

Table 2 Direct effects on dependent variable

<i>Effects of endogenous variables</i>	<i>Path (β)</i>	<i>t Value (Bootstrap)</i>	<i>Confidence Interval</i>	<i>Explained variance</i>	<i>Answer</i>
<i>Intention to visit a Sustainable Tourist Destination</i>					
<i>Adj R² = 0.378/Q² = 0.349</i>					
RQ1: Sustainable Development Concerns (SDC)	0.206*	4.256	Sig (0.102; 0.286)	37.8%	Yes
RQ2: Pro-Environmental Daily Behaviours (PEDB)	0.341*	5.501	Sig (0.227; 0.468)	50.1%	Yes
RQ3: Sustainable Tourism Concerns (STC)	0.281*	5.191	Sig (0.185; 0.398)	42.7%	Yes

Source(s): Authors

Together these variables explain 38.4% of the variance of the exogenous variable intention to visit a sustainable tourist destination ($R^2 = 0.384$).

According to Figure 2 and Table 2, we may answer all our research questions. Pro-environmental daily behaviours ($\beta = 0.341$) are the most important variable to explain the choice of a sustainable

tourist destination, followed by sustainable tourism concerns ($\beta = 0.281$) and sustainable development concerns ($\beta = 0.206$). Thus, respondents with greater overall sustainable development concerns, that have more rooted habits of environmental preservation, and that are more concerned with sustainable tourism, in itself, are those with a greater intention of selecting a sustainable or environmentally friendly destination.

Discussion

Gen Z is the main dynamic of the near future. To ensure a strong, inclusive and sustainable future for tourism, the tourism industry should pay specific attention to the generational turnover and to the peculiarities of the younger generations (Corbisiero *et al.*, 2022). It seems more or less accepted that Generation Z is the generation of disruption, entrusted with the responsibility of advancing the long-recognized challenges of sustainable development. A wide body of research has emerged that investigated Gen Zers' values and attitudes although only a few investigated their concerns and potential contribution to sustainable tourism. In this study, we explored the influence of Portuguese Gen Zers' attitudes concerning SDGs, in general, and sustainable tourism, in particular, as well as their pro-environmental behaviours, in their intentions to select a TS destination. Our general hypothesis that Gen Z attitudes, values and daily pro-environmental habits influence their intention to visit a TS destination was confirmed. Even so, we found some paradoxes.

On the one hand, Portuguese youth respondents seem to be pro-SGDs. They seem to be conscious of all sustainable goals ranging from climate change to mental and physical health to all types of equality. This finding is in line with those of other studies (Yamane and Kaneko, 2021; Hamadeh, 2022). On the other hand, we did not find direct involvement of respondents with environmental protection. Not only do they have no pro-environmental behaviour in their daily lives, but this pattern also extends to tourism by implying that they do not avoid very popular destinations and that they do not agree that air travel (considered highly polluting) should be more expensive. Therefore, we found that respondents' values and behaviours are not aligned with TS. Similar findings were revealed elsewhere (Haddouche and Salomone, 2018; Görpe and Öksüz, 2022). Moreover, another noteworthy finding was that recycling and reducing water and energy consumption seem to be their only daily habits. The pro-environmental behaviour of the respondents concerned only actions performed in the household, namely recycling and reducing water and energy consumption. A possible explanation for these exceptional pro-environmental behaviours may be their parental imposition. The majority of Generation Z young people still live with their parents who recognize the long-term economic benefits of energy and water costs reduction to lower cost maintenance. However, more research is needed here.

The finding that respondents are not, in practice (daily life) committed to protecting the environment is an interesting result that deserves to be analysed carefully. This finding is all the more important as the associations from the PLS model showed that pro-environmental habits have the greatest impact on the choice of a TS destination. There is a conflict between theoretical concerns and their practical implementation. One reason for this pro-environmental behavioural neglect by young people may be their disbelief (lack of hope) that they can tackle climate change. Members of Gen Z may feel "doomers". Climate "doomers" believe the world has already lost the battle against global warming and this idea is spreading online. This is extremely important as previous studies concluded that 80% of generation Z respondents obtain information on environmental protection only from social media (Parzonko *et al.*, 2021). They feel like climate convicts and believe that climate damage is irreversible. Thus, "doomism" leads to climate inaction, exactly the opposite of what is intended. For instance, BBC (British Broadcasting Corporation) news report videos uploaded by a 27-year-old where he calls himself a "climate doomer" and where said since 2019 that "little to nothing" can be done to "actually reverse climate change on a global scale (Morales, 2022). Another reason for the discrepancies between SDGs declarations and pro-environmental behaviours displayed by respondents may result from the fact that their declarations are shaped to a large extent by social media. Thus, social media should be used to spread daily environmentally friendly behaviour in the hope that young people will act as followers.

We also found evidence that young girls are more sensitive to the general problem of sustainable development than young men. This result is not surprising insofar as achieving gender equality and women's empowerment is integral to each of the 17 SDGs adopted by world leaders in 2015. Furthermore, we found that the majority of younger participants have a negative outlook on the future, confirming international findings (Corbisiero and Ruspini, 2018).

Conclusion

The challenge of achieving sustainable development is large and pressing. The difficulty lies in equating the importance of environmental protection policy with economic and social policy. This requires a change in the mind-set of societies. A lot of hope has been placed on the current young Generation Z to achieve this desideratum. But will this generation be able to make the change? According to our findings, the real pro-environmental behaviour of Gen Z respondents as well as their views about some TS matters does not live up to their declarations concerning SDGs. Indeed, their theoretical concerns are not consonant with their attitudes in practice. Furthermore, concerning the sustainable tourism sector, in particular, based on the views expressed by our respondents it may be utopian to believe that this generation will substantially alter the development of tourism as we know it. The findings do not corroborate the established idea that members of generation Z will be the next saviours of the environment highlighting the difference between theoretical ideas and practical behavioural realizations. Unfortunately, based on our findings, we think it will be difficult to promote Portuguese community literacy about SDGs with the help of members of Generation Z as has been advocated (Hamadeh, 2022).

Achieving sustainable development and sustainable tourism is a global objective. Like it or not, the only hope remains the contribution of members of Generation Z.

Theoretical and practical implications

The findings of this study offer several theoretical and empirical insights into the relationships among Generation Z attitudes, beliefs and behaviours concerning sustainability, in general, and TS, in particular.

First, we focused on the Gen Z cohort. There seem to be a fixed idea claiming the sustainable behaviour of Gen Z as socially and environmentally conscious citizens. However, there is little empirical research on this cohort of daily political and pro-environmental behaviours and their concerns in choosing a sustainable tourist destination. The present study is the first to investigate the attitudes, values, and behaviours of members of Generation Z in an integrated way on the goals of sustainable development in general and sustainability in tourism in particular. Second, the study here reported is the first study of this nature to be carried out in Portugal. To the best of the authors' knowledge, no study to date has explored the opinions of young Portuguese Gen Zers on sustainability issues, nor has it evaluated their potential contribution to more sustainable tourism. The fact that it was carried out in a developed country context highlights that neither Gen Z's pro-environmental behaviour nor its concern for sustainable tourism still seems culturally rooted in developed countries. Third, the results show that the pro-environmental habits of young people are the biggest influence in choosing a sustainable tourist destination.

The results obtained in the present work deserve some reflection and provide some clues on the way forward to ensure that this generation is still able to contribute significantly to the development of more sustainable tourism. In summary, a concerted and coordinated effort towards tourism policymakers is required to engage Gen Z tourists with pro-environmental behaviours in general and with TS, in particular. We propose some important roles to be played by tourism organizations and decision-makers. Most significant is the fact that policymakers and destination management organizations should take advantage of Gen Z technology skills in their engagement in political consumerism and especially sustainable and ethical consumerism. Technology is proven to have a positive correlation with the environmental, socio-cultural and economic dimensions of sustainable

tourism perception among Generation Z (Sfodera *et al.*, 2022; Seyfi *et al.*, 2022). Thus, tourism stakeholders should bear in mind the importance of clear digital information provision and communication as this is the starting point at which individuals decide whether issues are meaningful to them or not. In this regard, some measures could be taken. One of them would be for decision-makers to take advantage of these young people's digital capabilities and share, through video content, tourism stories of green volunteerism on social network platforms. Publicizing practices such as cleaning beaches or green areas, replanting trees and recycling plastics, among others, can be a means of involving young people in pro-environmental behaviours while encouraging them to seek more sustainable destinations. Another measure that would be worth implementing, once again taking advantage of the digital gifts of youth tourists, would be the development of gamified tourism experiences through the practice of geocaching. The activities and micro-activities that so appeal to Millennials and Generation Z, such as solving cache puzzles, using maps and clues, finding location co-ordinates, and reading and interpreting GPS (Global Positioning System) devices involved in cache search (Skinner *et al.*, 2018) encourage the involvement of young people with the environment, making nature tourism more attractive and sought after. Emotions, pleasure and enchantment are at the heart of the Gen Z tourist experience and needs. Thus tourism professionals must identify the emotional levers to be activated and use them to enhance more sustainable tourism. Members of Gen Z look for experiences rather than products. Finally, the use of social networks must be increased to instil in young people daily pro-environmental habits. For instance, disseminating information about the dangers arising from the negative impact of man on the natural environment can contribute to the reflection on the individual and collective behaviour of this generation. However, these measures that aim to modify behaviours must be agreed upon at an international level.

Last but not least, destinations and tourism businesses should see the recent Covid-19 pandemic as an opportunity to identify new and more sustainable ways of welcoming and managing tourism flows. As recognized by some researchers, the disruption owing to the recent Covid-19 pandemic can be converted into transformative innovation and help reshape and rethink tourism (Corbisiero and Monaco, 2021; Monaco, 2021; Corbisiero *et al.*, 2022). The public health crisis has hit the way of life of young people in an unprecedented way. At this stage of their lives, they want to socialize and the pandemic has isolated them, interrupting their lifestyles until it becomes an unnatural process. Due to the shutdowns and consequent absence of travel, members of Gen Z are eager to travel and become more aware of the positive effect of travel on their quality of life. Moreover, safety concerns may change their travel behaviours with younger tourists preferring more natural destinations. Indeed, tourism decision-makers must grasp this eagerness to travel among young people and these safety concerns to develop the role of innovation and digital solutions to assure tourists of different ways of using either physical or digital services emphasizing the commitment to the development of more sustainable tourism (Monaco, 2021).

Limitations and future directions

The results of the present study should be interpreted with appropriate caution, however, given the non-random nature of the sample. The conclusions cannot be generalized either to the Portuguese of Generation Z or members of this generation, in general. However, the aim here was to shed some light on the belief that Portuguese Gen Z will change the future of tourism by making it more sustainable. It is our contention that these drawbacks are overcome by the contribution of this study.

In follow-up research, it would be useful to perform a quali-quantitative methodology to investigate either the reasons why members of Gen Zers engage or do not in pro-environmental behaviours and if they feel "doomers". It would also be useful to conduct further international comparative research to compare views across a range of different countries using a common study design – either this one or another common format to explore cultural differences and trace patterns of common preferences and behaviours.

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(The Appendix follows overleaf)

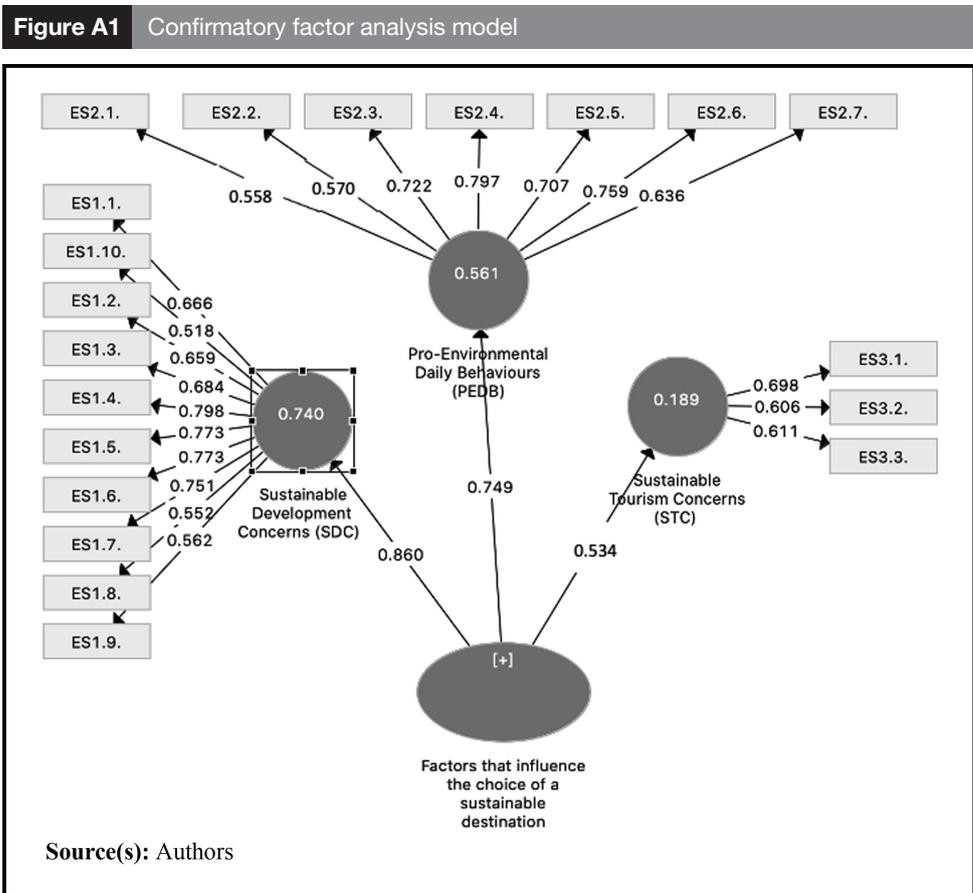


Table A1 Scale application and descriptive analysis of respondents' opinions concerning dependent and independent variables

<i>Section 2. How much importance do you attach to the following issues</i>							
	Totally disagree	Disagree	Neutral	Agree	Totally agree	Mean	Std. Deviation
ES1.1. Climate Change	1.6	1.0	5.6	29.8	62.0	4.50	0.787
ES1.2. Animal Protection	0.7	0.0	6.2	24.9	68.2	4.60	0.667
ES1.3. Justice	0.0	0.0	5.6	18.0	76.4	4.71	0.565
ES1.4. Gender Equality	1.0	1.0	8.5	16.7	72.8	4.59	0.769
ES1.5 Racial Equality	0.7	0.3	4.6	14.4	80.0	4.73	0.624
ES1.6 Poverty and Inequalities	0.3	0.3	5.9	22.0	71.5	4.64	0.64
ES1.7. LGBT Equality	1.6	3.3	14.4	21.3	59.3	4.33	0.953
ES1.8. Fight corruption	0.0	0.0	6.9	23.3	69.8	4.63	0.610
ES1.9. Mental Health	0.0	0.3	3.0	12.8	83.9	4.80	0.487
ES1.10 Physical Health	0.0	0.0	3.3	34.4	62.3	4.59	0.555
<i>Section 3. How often do you adhere to the following habits</i>							
	Never	Rarely	Sometimes	Often	Always	Mean	Std. Deviation
ES2.1. Recycling	6.0	12.0	30.0	29.7	22.3	2.50	1.141
ES2.2. Use public transport	22.1	23.2	28.9	18.1	7.7	1.66	1.224
ES2.3. Use environ. Friendly brands	6.0	24.7	44.7	22.0	2.7	1.91	0.899
ES2.4. Reduce water	2.0	8.4	36.1	36.1	17.4	2.59	0.939
ES2.5. Reduce energy	2.3	9.7	31.4	39.1	17.4	2.60	0.962
ES2.6. Avoid plastic	6.0	18.0	37.7	27.7	10.7	2.19	1.044
ES2.7. Avoid meat consumption	36.9	34.6	26.8	8.4	3.4	1.07	1.083
<i>Section 4. Indicate your level of agreement with the following statements</i>							
	Totally Disagree	Disagree	Neutral	Agree	Totally Agree	Mean	Std. Deviation
ES30.1. I care about the well-being of the locals in the destinations I visit (or plan to visit)	0.3	2.0	7.3	37.3	53.0	4.41	0.741
ES3.2. I avoid destinations that are very popular/have a lot of tourists	18.7	32.0	29.0	14.7	5.7	2.57	1.121
ES3.3. Air travel should be taxed more or its offer should be reduced to reduce the environmental impact	18.7	32.1	31.8	12.0	5.4	2.53	1.091
<i>Dependent Variable: How important is the following factor when choosing your travel destination?</i>							
	Nothing Important	Not very Important	Neutral	Important	Very Important	Mean	Std. Deviation
Sustainable destination	4.5	7.6	27.8	41.2	18.9	3.63	1.017

Note(s): Percentage response, Mean and Standard deviation
Source(s): Authors

Table A2 Estimates of linear regression analysis

	<i>Intention to visit a sustainable tourist destination (ISTD)</i>		<i>Sustainable development concerns (SDC)</i>		<i>Pro-environmental daily behaviours (PEDB)</i>		<i>Sustainable tourism concerns (STC)</i>	
	Estimate	p-value	Estimate	p-value	Estimate	p-value	Estimate	p-value
Gender	0.295*	0.000	0.342*	0.000	0.285*	0.000	0.136*	0.022
Age	0.063	0.252	0.174*	0.014	0.252	0.364	0.188	0.149

Note(s): * p -Value \leq 0.05
Source(s): Authors

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