Sustainable practices of Millennials and Generation Z as tourists in scientific research publications

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Abstract | In an era characterized by escalating environmental challenges and an urgent call for sustainable development, this study examines the pivotal role of Millennials (Gen Y) and Generation Z (Gen Z) in shaping sustainable practices within the tourism industry. Through a thorough analysis of 49 scientific articles sourced from the SCOPUS database, we explore the evolving discourse surrounding these two cohorts and sustainable tourism. Our findings underscore a burgeoning scholarly interest in understanding the intersections between Millennials, Generation Z, and sustainable tourism practices. Themes such as environmental sustainability, travel behaviour, and consumption preferences emerge prominently in the literature. Notably, Generation Z emerges as a focal point of investigation, reflecting their heightened concern for the planet's well-being. This study contributes to a nuanced understanding of the complexities inherent in Millennial and Generation Z cohort engagement in sustainable tourism and highlights avenues for future research and policy intervention.

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1. Introduction

During a period distinguished by unprecedented environmental challenges and a global call for sustainable development, the role of younger generations, namely Millennials (Gen Y) and Generation Z (Gen Z), in shaping sustainable practices within the tourism industry becomes increasingly significant. The intersection of youth, sustainability, and tourism unveils a fertile ground for exploration, reflection, and action.

This article aims to delve into the involvement of Millennials and Generation Z in sustainable tourism practices, within the broader context of global sustainable development goals. With the backdrop of the United Nations 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), the imperative to integrate sustainable principles into our daily lives resonates louder than ever. Therefore, understanding the engagement of younger generations in sustainable tourism practices becomes not only pertinent but imperative for driving meaningful change.

To achieve these objectives, a systematic review of existing scholarly literature on the subject was conducted. The SCOPUS database was utilized for its extensive coverage of social science and tourism journals. Articles, conference papers, book chapters, and reviews published within a specified period were included in the review. The methodology aims to provide a comprehensive analysis of the existing body of knowledge, shedding light on the evolving dynamics between the Millennial and Gen Z cohorts, sustainability and tourism.

The study seeks to uncover trends, patterns, and insights that may highlight their roles as active stakeholders in the pursuit of sustainable tourism. The intertwining of generational cohorts, notably Millennials and Generation Z, with sustainability principles and tourism practices has become a focal point of academic inquiry in recent years, with Millennials recognised as trailblazers in environmental consciousness and Generation Z displaying a heightened concern for the planet's well-being, both cohorts wield considerable influence on consumption patterns within the tourism industry. This study seeks to delve into the intricate relationship between these cohorts and sustainable tourism, probing into questions regarding the depth of academic literature, prevailing themes, and the scholarly community's emphasis on studying Millennials and Generation Z in this context.

As the first generation to fully experience and adapt to the digital age, Millennials have shaped their behaviours and preferences under the influence of rapid technological advancements and widespread internet access. Their penchant for meaningful travel experiences, coupled with a

strong commitment to environmental responsibility, underscores their role as key stakeholders in the pursuit of sustainable tourism practices. On the other hand, Generation Z, as the world's first truly global and digitally native generation, exhibits a unique blend of digital savvy and environmental consciousness, driving demand for authentic, personalized travel experiences that align with their values of sustainability.

Against this backdrop, this study endeavours to illuminate the evolving dynamics between youth, sustainability, and tourism, shedding light on the roles and perceptions of Millennials and Generation Z as catalysts for change in the tourism industry. By conducting a comprehensive analysis of scholarly publications, it aims to uncover patterns, trends, and insights that elucidate the nuanced preferences and behaviours of these cohorts, thus informing stakeholders and policymakers about the imperative of embracing sustainable practices to cater to the evolving needs of future generations.

At the heart of this study lies the belief that incorporating Millennials and Generation Z into discussions on sustainable tourism not only mirrors changing consumer behaviours but also highlights the developing framework of responsible travel practices. As such, this study seeks to address several key questions:

- How extensive is the body of academic literature linking Millennials and Generation Z to tourism and sustainability?

- What predominant themes or areas of interest emerge from these scholarly investigations?

- To what extent does the scientific community prioritize the study of either cohort in the context of sustainable tourism?

This introduction sets the stage for our work, being followed by the theoretical framework and the methodology that was used for the literature review. The results will then be analysed, aiming to contribute meaningfully to the discourse on sustainable tourism and the role of these two cohorts therein.

2. Theoretical framework

Acknowledged as trailblazers in environmental consciousness, Millennials have demonstrated a penchant for sustainability principles, influencing their behaviours and consumer choices (Giachino et al., 2021). In contrast, Generation Z, characterized by a heightened concern for the

planet's well-being, exerts noteworthy influence on consumption patterns that prioritize sustainability (Orea-Giner & Fusté-Forné, 2023).

The importance of these two generations in the overall performance of current and future consumption, including travel and tourism, and their predisposition towards behaviours that are aligned with the sustainability paradigm determine the content of the theoretical framework that follows. A brief conceptual approach to the topic of sustainable development in the travel and tourism industry is followed by a framework for each of the generations in focus in this paper, in terms of the timeframe in which they were born, the context of societal and economic development in which they grew up, the behavioural profile that distinguishes them and, briefly, the sustainability practices they value.

The current development paradigm is based on the concept of sustainable development, which is globally imposed, in the field of action on the scale of the individual, organizations (public and private), and territories, covering transversely any area of human activity, including tourism. Currently, this is "one of the fastest-growing socio-economic sectors, accounting for an estimated 10% of world GDP, 1 in 11 jobs, and 7% of global trade of goods and services" (WTO/UNDP, 2017, 92), (representing 30% of the world's service trade). It also establishes a connection with a diverse set of other economic sectors and areas of political, social, cultural, and environmental action, allowing it to act as a catalyst and energizer of resources and territories, stimulating development opportunities that are reflected globally and transversally, far beyond the tourism sector (WTO/UNDP, 2017).

From the individual's point of view, and from the perspective of tourism consumption, according to the most up-to-date data from the WTO (UNWTO, 2024), demand in terms of international tourism was estimated around 1286 million tourists, in 2023, which is 34 % more than the figure recorded in 2022 (i.e. 325 million more tourists, i.e. overnight visitors). Europe accounted for 54.5 per cent of this demand, followed by Asia and the Pacific (18.2 per cent) and the Americas. Overall, 2023 proved to be a year of recovery in terms of international tourism - with the Asia-Pacific region seeing the biggest increase compared to 2022 (155.1 per cent) - but estimates only point to 2024, when the pre-pandemic figures will be surpassed (UNWTO, 2024). Another forecast for the future of tourism states that: "Sustainable practices and adaptability will play an increasing role in destinations and consumer choice in 2024" (UNWTO, 2024, 6). It is therefore important to explore conceptually what is meant by sustainable development. From a conceptual point of view it is meant the "development that meets the needs of the present without compromising the ability of future generations to meet

their own needs" (WCED, 1987, 43) and when applied to tourism this refers to the "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (WTO, 2005, 12).

There are three dimensions (or pillars) that underpin sustainable development - environmental, economic and social sustainability - and that determine its realisation, requiring a balanced articulation between the three. From the point of view of tourism, the dimensions of sustainable development require (WTO/UNDP, 2017):

- An efficient and responsible use of environmental resources, guaranteeing the maintenance of ecological processes and the conservation of natural resources and biodiversity;

- Valuing and respecting the communities visited, their traditional values, their heritage and their socio-cultural authenticity, fostering tolerance for intercultural diversity; and,

- A viable, long-term economic development that encourages the multiplier effect of tourism and contributes to the creation of job opportunities, income and social services for host communities and poverty reduction.

Today, from a practical point of view, a positive and proactive reaction is expected from all parties involved in tourism - tourists, companies, public bodies, international organisations, donors and the academy - which will contribute to achieving the 17 Sustainable Development Goals (SDGs) defined in 2015 in the United Nations General Assembly's 2030 Agenda by 2030. The focus of this study is on consumers, tourists and travellers, whose weight (in terms of the aforementioned current - and future - tourist flows) and different consumption behaviours (means of transport, destinations, attitudes towards local communities, traditional values and the heritage visited, accommodation and catering, the environment, among many others) must be involved in the process. To this end, the WTO (UNWTO, n.d) has published a set of practical recommendations (Table 1) for each of the 17 SDGs aimed at more responsible and conscious consumers in their travel and tourism choices.

Table 1: Travellers recommendations regarding SDG's concretisation

SDG	Traveller good practice (some examples)	SDG	Traveller good practice (some examples)
1 No Poverty	Buy locally made handcrafts and products	10 Reduced Inequalities	Support NGOs and IOs with their fight against inequality and share their works and projects to raise awareness
2 Zero Hunger	Do not waste food. Try to order or fill your plate with the amount of food you can actually eat and avoid having leftovers	11 Sustainable Cities and Communities	Bike, walk or take public transport. Save the car trips for when absolutely necessary.
3 Good Health and Well-Being	Vaccinate yourself, you would be protecting yourself from diseases but also aiding public health	12 Responsible Consumption and Production	Buy minimally packaged goods
4 Quality Education	Learn to speak a few words in the local language. This can help you connect with the local community in a more meaningful way	13 Climate Action	Stop printing booking confirmations and boarding passes, instead have digital copies of these documents
5 Gender Equality	Report any inappropriate or discriminatory behaviour you witness during your travels or online	14 Life Below Water	Do not litter, this could pollute the marine environment.
6 Clean Water and Sanitation	Educate yourself about appropriate water behaviours, ..., and adjust your consumption accordingly	15 Life on Land	Respect wildlife and their natural habitats.
7 Affordable and Clean Energy	... give preference to staying at places or buying only from companies that ... do not harm the environment	16 Peace, Justice and Strong Institutions	Research your destination to learn about local customs traditions and social conditions
8 Decent Work and Economic Growth	Hire local guides with in-depth knowledge of the area	17 Partnerships for the Goals	Promote the Global Code of Ethics for Tourism
9 Industry, Innovation and Infrastructure	Collaborate with NGOs and the public sector to help promote sustainable growth within developing countries		

Source: Authors based on UNWTO (n.d.)

Looking in particular at the two generations under study, together they represent around 4.27 billion people (data for 2019, according to the United Nations), corresponding to 55% of the world's population (millennials with approximately 1.8 billion people (MSCI, 2020) and Generation Z with 2.47, estimated figure for 2019, according to the World Economic Forum (2018)). Their current representativeness in the world population, as well as their influence as tourism consumers, require us to understand how they are (and could be) engaged in the current sustainability challenges.

Millennials, also known as Generation Y, are individuals born roughly between 1981 and 1996 (Dimock, 2019), although there is variation and no general consensus in defining their exact timeframe. They are the first generation to fully experience and adapt to the digital age, growing up with rapid technological advancements and widespread internet access (Bayram, 2022). This digital upbringing has significantly shaped their behaviours, preferences, and values.

Millennials are highly tech-savvy, with a deep understanding of digital devices and online platforms (Zachara, 2020). They rely heavily on technology for various aspects of their lives, including communication, information gathering, and planning travel. Social media plays a significant role in their decision-making process, particularly when it comes to travel planning, as they seek recommendations and reviews from peers and online communities. In general, they are well-educated, like to travel and in their modus operandi appreciate the process more than the result. Millennials were brought up in a time of prosperity (Bayram, 2022).

The millennial generation believes that working for causes is an integral part of life and align themselves with major movements aimed at solving social or environmental problems, such as buying fair trade products or sustainable agricultural goods. They can be characterized as being team-oriented, in the sense that friends, social networks, and connectivity are essential to them. They have multitasking skills, like to experience new things and share moments of their lives and brands and digital culture. Generation Y is highly influenced by trends, is well educated and, therefore, self-confident, seeking to be respected and valued for who they are and what they know (Costa et al., 2019).

One of the defining characteristics of Millennials is their emphasis on experiences over material possessions and the pursuit of pleasure and entertainment (Pine and Gilmore, 1998). Additionally, Millennials are environmentally conscious and socially responsible consumers, showing a strong interest in sustainability and ethical practices. They are more likely to support

brands and businesses that align with their values, forming emotional attachments with those brands (Rodrigues & Rodrigues, 2019).

In terms of travel behaviour, Millennials are frequent travellers who value flexibility, spontaneity and finding new experiences, meeting new people and seeing novel places. They are willing to spend money on travel experiences and are drawn to activities that offer personal growth and enrichment Millennials also place importance on authenticity, preferring genuine and meaningful interactions with local cultures and communities (Cavagnaro et al., 2018; Bayram, 2022).

As tourists, Millennials tend to seek out unique and authentic experiences when travelling, allowing them to escape their daily life and routines. They are more likely to opt for experiential travel over traditional package vacations, preferring activities that allow them to immerse themselves in the local culture and environment, and closely related to responsible tourism (Cavagnaro et al., 2018). Millennials are also known for their use of technology in travel planning, relying heavily on social media, review websites, and mobile apps to research destinations, find accommodations, and discover local attractions (Giachino et al., 2021).

Pertaining to sustainable practices, Millennials display a significant interest with regards to environmental issues. Sustainability principles influence their behaviours and their purchasing decisions (Giachino et al., 2021). Generation Y maintain a strong connection with responsible tourism, emphasizing the preservation of both the environment and cultural heritage, placing significance on local culture and seeking to immerse themselves in it whenever possible. This generation is committed to passing on natural and cultural legacies to future generations and having experienced pivotal environmental events like climate change, Generation Y has been educated on the importance of conserving dwindling resources. Consequently, they are recognized within the tourism industry as environmentally conscious travellers (Cavagnaro et al., 2018)

Overall, Millennials represent a diverse and dynamic generation with unique characteristics and preferences shaped by their digital upbringing, environmental awareness, and desire for meaningful experiences. They are reshaping the travel industry and driving demand for sustainable, authentic, and socially responsible tourism experiences.

With the possible year variations to be considered, Generation Z, or Gen Z for short, encompasses individuals born between 1997 and 2012 (Dimock, 2019). They are the first cohort born in the digital era (Igel & Urquhart, 2012) and therefore are digital natives. Being the

world's first truly global generation through their digital connectedness (Pinho & Gomes, 2023), they are considered the world's largest consumer group, wielding significant influence and purchasing power that drives consumption trends and behaviour (Su et al., 2019), be it by their influence on family household purchase decisions or as direct consumers as they come of age.

One defining trait of Gen Z is their strong focus on quality and content marketing when making purchasing decisions. They prioritize product quality over brand reputation and are inclined to rely on word-of-mouth marketing and peer recommendations (Zuo et al., 2022). Additionally, Gen Z's consumption patterns are heavily influenced by social media, with a particular emphasis on sharing experiences and seeking a sense of identity and presence among friends. As consumers they are deemed to be conscious consumers (Van den Bergh & Pallini, 2018) and many of their decisions can be linked to sustainable activism (Su et al., 2019).

This cohort shows certain characteristics in their preferences and lifestyle, such as convenience, security and comfort (Wee, 2019). Their attitudes, beliefs and behaviours have been moulded by events such as globalization, terrorism, the financial crises of 2008, a growing dependency and boom in technology and the COVID-19 pandemic (Pinho & Gomes, 2023).

This generation exhibits a heightened awareness on social, environmental and sustainable issues (Seyfi et al., 2023; Monaco, 2018), showing attention and concern with the depletion of natural resources (Pinho & Gomes, 2023). They demonstrate a preference for sustainable and ethical practices in both consumption and tourism (Wee, 2019). This environmentally conscious mindset translates into their consumer behaviour, as they are more willing to pay for sustainable products and support businesses aligned with their values and are inclined to boycott companies that do not align with their values (Seyfi et al., 2023).

Technology plays a vital role in the lives of Gen Z individuals, who are considered the first digitally native generation. They rely heavily on digital tools and social media platforms for communication, information gathering, and travel planning (Bayram, 2022; Orea-Giner & Fusté-Forné, 2023). Their travel preferences lean towards adventure, unique experiences, and local immersion, often shared and documented on social media platforms (Bayram, 2022; Seyfi et al., 2023).

Overall, Generation Z is characterized by its unique blend of digital savvy, social and environmental consciousness, and desire for authentic, personalized experiences. As this

generation continues to mature, their influence on consumption patterns and societal values is expected to grow significantly.

As tourists, Generation Z seeks out authentic and immersive travel experiences that align with their individual interests and values. They are more likely to prioritize adventure, exploration, and local immersion, preferring boutique hotels and locally managed restaurants with local products. Being smart tourists, Generation Z relies heavily on technology for trip planning and navigation, using social media platforms, travel apps, and online reviews to research destinations, find accommodations, and discover off-the-beaten-path experiences. They generally prefer destinations where mass tourism is absent (Bayram, 2022).

In terms of sustainable practices, it is said that Gen Z is more interested in incorporating sustainability into their behaviours and practices than earlier cohorts (Seyfi et al., 2023). Some of the latest studies suggest that different cohorts exert different influences on sustainability attitudes and behaviours, while other studies indicate that Baby Boomers are more active in sustainable consumption practices that Generation Z. The studies on the influence of generational impact on environmental behaviours have yielded mixed results, yet individuals from the Gen Z cohort exhibit distinct traits that distinguish them from other cohorts (Sharma et al., 2023).

3. Methods

In this study, a bibliometric approach (Pritchard, 1969; Hicks et al., 2015) was used to analyse scientific publications, adopting a research criterion that allowed access to information, aiming to fulfil the study's objectives. Scopus database (SCOPUS, 2023) was chosen due to its large coverage of social science journals and tourism publications. A keyword search was conducted using the terms 'Gen Z', or 'Generation Z', or 'Millennial', and 'sustain*', 'tour*'. The search was held within article titles, abstracts and keywords, and no limitation was selected in terms of subject areas, document types or available languages.

The search was performed on the 6th of July 2023, and a total of 65 articles, conference papers, book chapters, conference reviews and reviews were found. In terms of languages, three languages appeared in the search results, as follows: English (n = 63), Portuguese (n = 1) and Spanish (n = 1). Considering language capabilities and the reduced number of items, no document was rejected on the base of language.

Analysis and processing of the obtained data was achieved through excel software. A first screening was performed based on the accessibility and availability of the content and, as can be seen in Table 2, a total of 56 scientific documents were downloaded or consulted online for the analysis: 39 articles; 8 conference papers; 5 book chapters; 2 reviews; and 2 conference reviews were downloaded or consulted online for the analysis.

Table 2. SCOPUS search results by type of scientific document

Type of Scientific Document	Quant.
Article	39
Book chapter	5
Conference paper	8
Conference review	2
Review	2
Total	**56**

Source: Own elaboration

A content analysis of all 56 documents was conducted to determine if they contained relevant content for this study. A total of seven documents were excluded, as it was concluded that they did not align with the central theme of this research, leaving 49 remaining scientific articles (see Appendix) to be read in full, in order to conduct the analyses and fulfil the proposed objective. Each document that was read was classified considering the general theme and the cohort(s) being analysed.

The classification by themes was firstly performed considering each paper's title, abstract and keywords. With regards to the keywords, a word cloud was developed using all the keywords for each paper (Figure 1), providing the word frequencies identified in Table 3. Secondly, a title and abstract analysis was developed and the overview of each scientific article was noted. Finally, based on both the word cloud and the title and abstract analysis, general themes were adopted, and definitions given to justify each theme and provide a more objective approach to the document classification for each theme (tables 4 & 5).

In Figure 1 we can observe the word cloud generated from the 49 scientific article keywords. At a first glance the words 'tourism,' 'behaviour,' 'environmental' and 'sustainable' stand out the most.

Figure 1. Word cloud analysis

Source: Own elaboration

Table 3 shows the word frequency from the word cloud, confirming 'tourism', 'behaviour', 'environmental' and 'sustainable' as the most repeated keywords. In the 'group' column of Table 3 we can identify the connection to the keyword incorporation in the main themes identified in Table 4.

Table 3. Word cloud frequency

Group	Word	Frequency
a), e)	Tourism	16
b)	Behaviour	15
a)	Environmental	10
e)	Sustainable	7
b), c)	Experience	6
f)	Food / Gastronomy	5
a)	Green	5
d)	Technology / Digital	5
g)	Tourists	5
g)	Generation	5
g)	Based	4
c)	Consumption	4
a)	Sustainability	4
b)	Travel	4
g)	Model	4
g)	Cultural	3
g)	Destination	3
e)	Development	3
g)	Marketing	3
a)	Nature	3

Source: Own elaboration

The main themes of the 49 scientific articles were extracted and categorized based on the article titles and respective abstracts (Table 4). There are various cases where more than one theme could be identified in an article, and therefore the result is a total of 69 themes that can be linked back to the 49 articles. As mentioned previously, the keywords help to validate the adoption of these main themes.

Table 4. Main themes of the scientific articles analysed.

Group	Main Themes	Quant.
a)	Environmental Sustainability/Tourism	19
b)	Travel Behaviour	14
c)	Consumption Preferences	7
d)	Digitalization and Technology	7
e)	Sustainable Tourism/Development	7
f)	Food	3
g)	Others	12
Total		**69**

Source: Own elaboration

To provide a clear and coherent integration of the contents of the articles into the identified themes, definitions were created that outline the framework of each one and allow for an objective application (Table 5).

Table 5. Main theme definitions

Main Themes Definitions
Environmental Sustainability/Tourism: This category focuses on research examining the intersection of tourism and environmental sustainability. It includes studies on sustainable tourism practices, conservation efforts, eco-friendly initiatives, and the mitigation of negative environmental impacts associated with tourism activities.
Travel Behaviour: Papers in this category focus on understanding and analysing the behaviour patterns of tourists. This includes research on travel motivations, decision-making processes, travel preferences, and the impact of socio-demographic factors on travel behaviour.
Consumption Preferences: This category encompasses studies that investigate the preferences, tastes, and desires of tourists when consuming tourism products and services. It may include research on factors influencing consumer decision-making processes, such as cultural influences, lifestyle preferences, and socio-economic factors.
Digitalization and Technology: Papers categorized under this theme explore the role of digital technologies in shaping various aspects of the tourism industry. This includes research on the adoption of digital platforms for marketing, booking, and experiencing travel, as well as innovations like augmented reality, virtual reality, and artificial intelligence in enhancing the tourism experience.
Sustainable Tourism/Development: This category encompasses research on sustainable tourism practices and their implications for destination development. It includes studies on community-based tourism initiatives, responsible tourism management, and strategies for achieving sustainable development goals within the tourism sector.

Food: Papers in this category centre around the role of food and culinary experiences in the tourism industry. It may encompass research on gastronomic tourism, food tourism destinations, culinary heritage preservation, and the impact of food-related experiences on tourist satisfaction and destination image.

Others: This category serves as a catch-all for papers that do not fit neatly into the other predefined categories. It may include studies on niche or emerging topics within social and tourism studies that warrant further exploration and research.

Source: Own elaboration

4. Results

The research on Gen Y and Gen Z cohorts and their relationship with sustainability, namely sustainable tourism, has seen growth in recent years. Considering the 49 scientific articles used for the literature review, Figure 2 shows us that one document was published in 2017; 2 in 2018; 4 in 2019; four again in 2020; 9 in 2021; 15 in 2022; and 14 until the study search date of July 6th, 2023. The concentration in the last two years of more than 50% of the studies found is a clear indication that interest in this topic is growing as Generation Z comes of age and becomes increasingly influential as tourism consumers, becoming the largest group of general consumers in the world and exerting different influences on sustainability attitudes and behaviours.
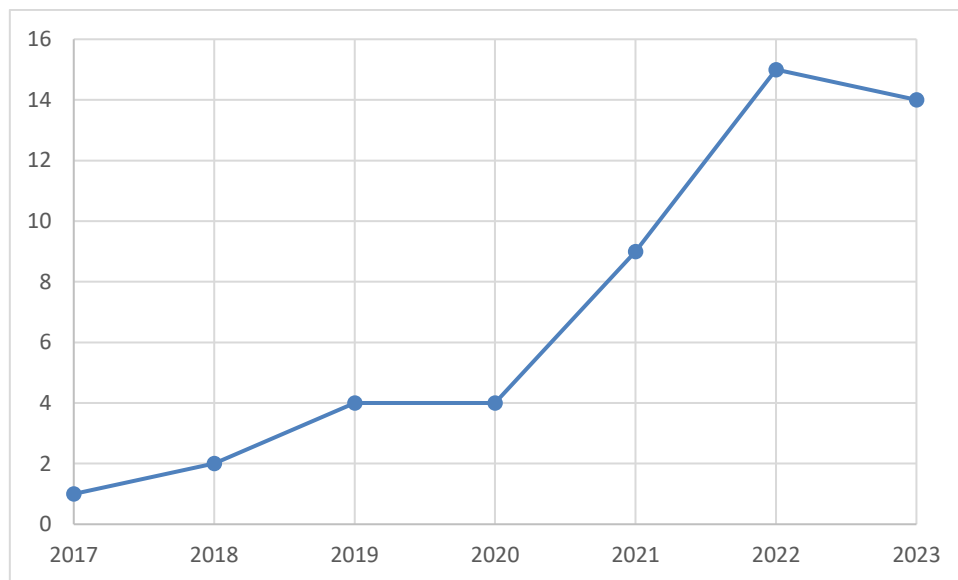

Figure 2. Publication trend of the 49 scientific articles used for the literature review (2017-2023)

Source: Own elaboration

Looking through the main themes of the scientific articles, some of which contend with more than one theme, we can see in Table 6 that «Environmental Sustainability / Tourism» is common to 19 of the documents; «Travel Behavior» can be found in 14 documents; «Consumption Preferences», « Digitalization and Technology » and « Sustainable Tourism / Development » are present in 7 documents; «Food» is the theme of 3 documents; and lastly there are 12 other documents that look at 9 other themes. Considering that sustainability comprises of three main pillars: economic, social, and environmental, it is relevant to note that this holist view of sustainable tourism and/or sustainable development is only present in seven documents, while the environmental outlook on sustainability is present in 19 documents.

Examining the various cohorts explored and cited across the 49 scientific publications that form the foundation of this study, we can delineate, in a chronological sequence from the eldest to the most recent: Generation X (Gen X), Millennials (Gen Y), Generation Z (Gen Z), and Generation Alpha (Gen Alpha). Table 6 identifies that Gen Y as a sole cohort is studied in 13 documents; Gen Z is explored as a sole cohort in 27 documents; Gen Y and Gen Z are combined for study in 3 documents; Gen X, Y and Z are examined in 2 documents; the combinations Gen X and Y and Gen Z and Alpha are studied in 1 document each; and finally, 2 documents don't mention any specific cohort. From these numbers, we can observe the Gen Z is present in more than half of the 49 scientific studies that were analysed.

With regards to cohorts, it is important to note, as Tanase et al (2023) point out, that specialized literature does not conventionalize on the specific time-period for each generation, and this does not allow for a complete uniformity in cohort studies and analyses, as slight variations are possible to exist from author to author and study to study.

Table 6. Cohort focus from the literature analysis.

Cohort(s)	n	%
Gen Z	27	55,1%
Gen Y	13	26,5%
Gen Y + Z	3	6,1%
Gen X + Y + Z	2	4,1%
Unspecific	2	4,1%
Gen X + Y	1	2,0%
Gen Z + A	1	2,0%
Total	**49**	**100,0%**

Source: Own elaboration

From Table 7, considering the initial keyword search was conducted using the terms 'Gen Z', or 'Generation Z', or 'Millennial', and 'sustain*', 'tour*', it is curious to observe that Gen Z is by far the most studied cohort, namely in the theme of Environmental Sustainability/Tourism, with 13 occurrences, followed by the theme Travel Behaviour, with 7 registers. Once again this denotes that sustainable tourism and/or sustainable development, as a topic of study by academia, is mainly being analysed through only one its three pillars: Environment. The general and holist view of sustainable tourism, including the economic and social aspects, is currently not studied as much, with only seven occurrences through all cohort combinations.

Table 7. Paper's main themes and cohorts they analysed.

Cohort Theme	-	X + Y	X + Y + Z	Y	Y + Z	Z	Z + A	Total
Environmental Sustainability/ Tourism				5	1	13		19
Travel Behaviour				5	2	7		14
Consumption Preferences			1	2		4		7
Digitalization and Technology	1			1	1	3	1	7
Sustainable Tourism/Development			2	1		4		7
Food						3		3
Others	1	1	1	4		5		12
Total	2	1	4	18	4	39	1	69

Source: Own elaboration

The main regions where the 49 papers focused their studies were in Europe, with 19 single country studies, and Asia, with 13 single country studies (Table 8). The study of Gen Y and Gen Z and their relationship and interaction with sustainability and tourism is almost an exclusive area of interest to these two regions, as it is insignificant in the remaining regions with only one study per region.

Table 8. Countries where studies were conducted.

Single Country Studies		
Country	**Region**	**Quant.**
-	-	9
Egypt	Africa	1
China	Asia	4
India	Asia	2
Indonesia	Asia	3
Malaysia	Asia	4
Cyprus	Europe	1
France	Europe	1
Greece	Europe	4
Italy	Europe	4
Netherlands	Europe	1
Poland	Europe	2
Portugal	Europe	2
Romania	Europe	3
Spain	Europe	1
Iran	Middle East	1
USA	North America	1
New Zealand	Oceania	1
Ecuador	South America	1
Multiple Country Studies		
Countries	**Regions**	**Quant.**
Malaysia; UK	Asia; Europe	1
Poland; India	Europe; Asia	1
Various (63 in total)	Various	1

Source: Own elaboration

5. Conclusions

The discourse surrounding Millennials and Generation Z in the realm of sustainable tourism underscores the imperative of recognizing and catering to the unique characteristics and preferences of these cohorts. As Millennials continue to champion environmental responsibility and seek meaningful travel experiences, Generation Z emerges as a driving force behind the

demand for authentic, sustainable tourism practices. Through meticulous analysis of academic literature, this study has provided insights into the evolving dynamics between youth, sustainability and tourism, highlighting the pivotal role played by Millennials and Generation Z in shaping the future of the tourism industry. Moving forward, it becomes imperative for stakeholders to embrace sustainable practices and adapt to changing consumer preferences, thereby fostering a more responsible and sustainable tourism landscape for generations to come.

The analysis of 49 scientific articles on the sustainable practices of Gen Y and Gen Z as tourists reveals a growing interest in this topic. The publications span from 2017 to 2023, indicating a progressive surge in attention where environmental sustainability in tourism has clearly emerged as a predominant theme, present in 19 articles, while notably, a holistic view of sustainability, encompassing economic, social, and environmental aspects, is found in only seven documents. It is also clear that Gen Z emerges as the focal point in more than half of the studies, reflecting the heightened attention on this demographic, while Europe and Asia are the regions responsible for the majority of the scientific articles that were produced during the period mentioned above.

This study allows us to identify opportunities for future research, particularly in terms of themes, scientific areas and sustainability components that have not yet been widely explored by the scientific community. From the point of view of scientific areas, depending on whether they are more closely linked to tourism planning, marketing, strategies for attracting tourist markets or creating new tourism products, this study can contribute to a better understanding of the consumer groups that will play a decisive role in future consumption. In turn, the replication in new territorial contexts of research paths that have already been applied and validated by the scientific community could contribute to the identification of new behavioural profiles that enrich the knowledge of the generations under study and strengthen the fields of marketing, promotion and management of tourist destinations and businesses in the definition of future strategies.

Future studies could benefit from a more in-depth analysis by incorporating additional databases and spanning the linguistic scope of the search terminology. Another topic that could be considered for study is the possible link between the consumption of tourism, where Europe accounted for 54.5 per cent and Asia and the Pacific represented 18.2 per cent, and the main regions that have explored these studies of sustainable tourism in the Millennial and Gen Z cohorts, which are also coincidently Europe and Asia. This could also lead to another relevant area of study, which is the relationship between these regions, as leaders in academic study on

sustainable tourism and Gen Y and Gen Z cohorts, and the implementation of sustainable tourism policies, regulation and also information and education by governments.

As final suggestions, it is crucial to acknowledge the lack of consensus on the specific time periods defining each generation, introducing variations in cohort studies and academia would gain more rigor in analysis from a higher standardization in this matter. The study of sustainability as a whole, with its three pillars, environmental, social, and economic, also seems to be an area worth more study, instead of just focusing on the environmental aspects.

Limitations to this study include the fact that the database search was performed only on SCOPUS and using only English terms and that the classification of documents based on relevance to the central themes, while allowing to give a general idea of the topics being discussed, introduces a certain level of subjectivity and does not allow for an in-depth view of all the matters studied.

Acknowledgements

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APPENDIX

49 Scientific Articles Considered for the Literature Review

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