



ESJ Social Sciences

Metaverse in Tourism and Hospitality: Empirical Evidence on Generation Z from Italy

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[Doi:10.19044/esj.2022.v18n34p122](https://doi.org/10.19044/esj.2022.v18n34p122)

Submitted: 27 October 2022

Accepted: 29 November 2022

Published: 30 November 2022

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Cite As:

Rancati E. & d'Agata A. (2022). *Metaverse in Tourism and Hospitality: Empirical Evidence on Generation Z from Italy*. European Scientific Journal, ESJ, 18 (34), 122.

<https://doi.org/10.19044/esj.2022.v18n34p122>

Abstract

The paper has been conducted to analyze the change taking place in tourism marketing due to the metaverse innovation through tastes and needs of today's new generations of tourists, especially generation Z, that will be the future customers of the next decades. The goal of this study has been to analyze the opportunities concerning the metaverse and its immersive technology, through a survey conducted on a sample of generation Z people and understand which are the practical implications that can guide tourism companies and territorial governments' decisions during the nearest future, to satisfy new market demand and optimize their communication in the metaverse.

Mots-clés: Metaverse, tourism marketing, Generation Z

Introduction

The digitization of the tourism and hospitality market has now been a great diffusion for several years: tourists book and collect information on the web to find the best travel offers. Innovations of the last few years have revolutionized traditional tourism experience, purchase models. Marketers in the industry have had to rethink how they sell and sponsor tourism products and services. Nowadays, almost all tourism marketing strategies are linked to conventional and digital marketing tools and strategies (Itten et al., 2020). The

metaverse is now starting to be familiar to the Z generations in several countries and visitors can get to know the place virtually (Martins et al., 2022). Not only generation Y is becoming more important to tourism marketers as its members continue to enter the workforce: members of this generation cohort are essential to the tourism market as they engage in planning and budgeting vacations themselves (Reienwitz et al., 2019). In the future, tourism and hospitality businesses will have to earn the trust of the generation Z tourists of the future through innovative choices that are increasingly linked to technology.

The main objective of the paper is to understand what recent tourism digital marketing techniques the tourism businesses can implement and how to interface with future technologies such as artificial intelligence, and robotics, augmented reality, virtual reality, and blockchain.

The research questions are the following:

1. What are the digital marketing tools and strategies that a tourism company must implement to be competitive in a dynamic market?
2. What would be the impact of these technologies on the tourism market?
3. What are the experiences that tourists will live in the digital world?
4. How inclined are people to accept these new technologies?

Finally, to answer the research questions, the paper aims to study the digital marketing literature and its most current frameworks to explore digital marketing strategies and immersive technologies. Furthermore, a survey was conducted through a questionnaire to investigate the tourist's approach to online digital tools and the knowledge and degree of appreciation of immersive tourism.

Literature review

Metaverse (i.e. a digital replica of our physical world) has spread widely through tourism and hospitality management and marketing, attracting the attention of professionals and researchers (Zaman et al, 2022). Although the metaverse is a virtual space where users can interact socially, and use digital avatars, to generate value and co-create experiences (Buhalis et al., 2022b; Gursoy et al., 2022) and cannot be considered representative of general avatar marketing (De Brito et al., 2022), nonetheless represents an important and updated concept in marketing and management. Scholars have also been paying increasing attention to the function of the metaverse, which is often considered a disruptive technology (Business Insider, 2022; Gursoy et al., 2022). The primary objective of the metaverse is to make users interact virtually, overcome the limitations of devices, and immerse themselves in a new world where the boundaries between what is physical and what is digital

are increasingly blurred (Buhalis et al., 2022b). It can be defined a set of interconnected virtual and real worlds, populated by avatars, with spaces in which to meet, work, and have fun with people who are elsewhere. To access this new environment, you will wear a viewer or a pair of glasses such as augmented reality glasses or even just a PC for some applications. It is a transformation that will completely change the world of tourism: the Internet is about to leave its three-dimensional derivation to the metaverse (Capannari, 2022).

The concept of synthetic travel is not new and with the advent of the metaverse, this way of "virtually traveling" will certainly be accentuated. Metaverse tourism and metaverse travel technology establish a strong relationship between companies and their customers by bridging physical distances and offering new experiences. Metaverse offers opportunities to inspire the customer and provide valuable information that cannot be accurately provided in other ways, assisting them in a more informed choice, and improving the booking experience.

The environments of a hotel in the metaverse before buying it for a "real" trip, to get an idea of how big the rooms are and what services are offered, explore the destination in advance before booking it, get to know the avatar of the guide who will physically meet once you arrive at the facility, or enter a museum from the comfort of the sofa at home. In this way, the intangibility of the service that characterizes above all the world of travel (the fact therefore of not being able to evaluate performance before a purchase) would almost completely disappear (Puerto, 2022). Ultimately, the true value of metaverse tourism offers during the booking process is their ability to increase overall booking volumes (Chulmo et al., 2022). Furthermore, the metaverse can be used as a tool to live the travel experience: you can visit cities, take a holiday in a resort village, participate in fairs, exhibitions, conferences, concerts, live the experience of worldly life, discos, festivals, etc., you will have the opportunity to interact with the local community, to visit a zoo to discover extinct animals or to relive a past travel experience. The metaverse can hardly replace the journey but it could play a very important and supportive role. Just as social networks have become essential for marketing in a few years and just as the website has evolved from a simple online showcase to an extension of the structure itself, the metaverse could potentially be the next innovation in the hospitality sector (Kim, 2021).

Methodologies

To fulfill this research's objectives, authors adopt quantitative interviews through a questionnaire that focuses on generation Z to obtain more information and to identify the critical variables. Researchers don't use a qualitative interview through a focus group study research design that focuses

on metaverse information to obtain more in-depth information. They choose the generalization of results to a generation Z population. As a small amount of research exists on generation Z in tourism, exploratory research is employed herein, and both primary and secondary data about generation Z are therefore essential.

Sample characteristics

The study sample was national. The respondents consisted in individuals who were contacted by interviewers between the ages of 20 and 28, were approximately trained in data collection procedures, and were used as interviewers. This approach has been successfully used in previous research (Jones and Reynolds, 2006; Reisenwitz and Fowler, 2009).

Interviewers administered questionnaires and were instructed to screen potential respondents with three qualifying questions on the cover page of the questionnaire: a) an age range that categorized the respondent as a member of generation Z; b) an acknowledgment that the respondent had known almost one of the four Italian travel blogger and c) confirmation that the respondents love to travel.

An introduction to the questionnaire was just below the seven questions on the cover page, including an assurance to respondents that their responses would be kept confidential.

The estimated time for compilation is about 6 minutes. It was also chosen to exploit a logical and coherent structure to ensure sequentially to the interviews.

The questionnaire has four macro-sections and thirty questions. The first section included demographic questions (see Table 1). Another section asked respondents to report their travel habits in a series of dichotomous questions and frequency-level questions (see Table 1). The remainder of the questionnaire focused on the general knowledge of digital tourism, synthetic tourism, and the metaverse.

Multiple choice answers were done. Within the second and third sections concerning digital tourism and synthetic tourism, two questions were asked. The first question includes 5 items with a 7-point Likert scale answer, aimed at investigating the importance of some digital tools in the management of the trip (choice, booking, experience). The second question uses a semantic differential, aimed at investigating the interest in using physical or digital tools to experience the journey. The last section about the metaverse has been structured into four subsections and it focused on the metaverse: three questions were asked with answers on a 7-point Likert scale. Three items about the interviewee's interest in using the metaverse as a tool for organizing trips (choice, booking, purchase) were given, followed by 9 items about the interest in using it as a tool to live the travel experience in different situations. In the

last subsection, three further questions were asked about the propensity to use similar technology for travel to investigate the price expectations of a trip to the metaverse compared to a real trip. The last open-ended question tries to understand if, according to the respondents, there could be other advantages to traveling in the metaverse.

The questionnaire was written in Italian because all respondents are Italian. We required participants to be born between 1997 and 2012 to be part of Generation Z (Combi, 2015). To facilitate interviews, we required participants to live in Italy and used smartphone apps or at least had experience and knowledge of using smart devices. we collect this sample through a face-to-face interview. To limit nationality and social influence, we required participants to be Italian or have lived in Italy since childhood. Our sample frame is also greater than comparable studies (Fedrina et al. 2021; Benasso and Cuzzocrea, 2021). This survey was carried out over five months from September 2022 to October 2022.

Table 1. Descriptive information of sample

Item		Generation Z per cent (n) 100 (455)
SOCIODEMOGRAPHIC CHARACTERISTICS		
Gender	Male	19,7 (90)
	Female	80,3 (365)
Age (18-25)	20-25	88 (400)
	18-20	12 (55)
Nationality	Italian	100 (455)
Origin	Milan	91,9 (418)
	Milan suburbs	8,1 (37)
Marital	Single	87,9 (400)
	Living with another	12,1 (55)
	Married	0
	Widowed	0
	Separated	0
Education completed	Divorced	0
	High School	4,40 (20)
	Undergraduate	54,94 (250)
	Graduate	39,56 (180)
Occupation	Other	1,1 (5)
	Not employed	2 (17)
	Student	79,78 (363)
	Self-employed	1,76 (8)
	Professional	6,59 (30)
	Work in a firm	4,84 (22)
VACATION CHARACTERISTICS	Other	3,29 (15)

Vacation destinatio	Instate Out of State international	92 (420) 4,84 (25) 3,16 (10)
Travel time (days to and from destination)	0 1-5 days per year 6-10 days per year More than 10 days per year	1,3 (6) 84,4 (382) 10,8 (49) 3,5 (18)
Lenght of stay (without night per year)	Never 1-5 trips per year 6-10 trips per year More than 10 trips per year	9,3 (42) 50,3 (229) 22,7 (103) 17,7 (81)
Preference to stay overnight	House Hostel Cruise Touristic village Caravan/camping Holiday flat B&B Hotel	1,6 (7) 1,8 (8) 1,2 (5) 7 (31) 2 (9) 55,6 (252) 16 (75) 14,8 (68)
Principal means of transport	Ferries and boats Plane Train Rental car Peronal car and motorbike	5,4 (25) 7,2 (33) 13,7 (62) 5 (23) 68,7 (312)
Motivations	Scout Family Sport Religion Business Education Culture and leisure	0,4 (2) 38,2 (174) 8 (36) 1,7 (8) 4,1 (19) 28,7 (131) 18,9 (85)
INTERNET CHARACTERISTICS		
Do the respondents use online social network for travel purposes	Yes (3 to 5 in Likert Scale) No (1 to 2 in Likert Scale)	85 (387) 15 (68)
How often do the respondents use online social network for travel purpose?	Always Usually Frequently Often Sometimes Occasionally Seldom Rarely	64,2 (292) 9,6 (44) 13,7 (62) 9 (41) 2 (9) 1,5 (7) 0 (0) 0 (0)
Do the respondents use online social network to collect information about future travels	No, I never use social network, but I collect informations through different marketing channels	4,4 (20) 19 (86)

	Yes, I watch online advertising/promotion on my social network profiles	40,9 (186)
	Yes, I love storytelling and photos of my followers and travel bloggers	35,7 (163)
	Yes, I do research by myself using hashtag or I look for travel account and they inspire me	

Data collection

A ten-page questionnaire was used as the survey instrument and it was developed with four main constructs including scale items. Further, to collect required information from many respondents, we used a face to face survey method.

Three pretests were conducted to test the questionnaire among the students and professional friends from other generation. Validity of the research instrument can be appraised by a panel of able professionals whose expertise can judge whether the scale measures what it intends to measure and the questions are clear (Zikmund et al., 2013). The first pretest (n = 24) were conducted with a high school class of traditional students (Generation Z). Some basic formatting issues were addressed as a result of the pretest. A second pretest (n = 12) was conducted with an undergraduate marketing class of traditional students (Generation Z). Modifications and reviews, including a radical change of two questions, were made as a result of this second test. A third test (n = 3) was conducted with marketers participating to a conference in the exposition „TTG Travel Experience“ hold in Rimini from 11 to 13 October 2022.

Based on the input received, modifications, including a cancellation of few items in the questionnaire, which were considered unnecessary, were done and wordings change to enhance understandability.

The data for the main study were collected, coded and entered into the SPSS (Statistical Product and Service Solutions) program.

Data were collected among the face to face interview individual aged between 18 and 25 (Generation Z), including high school and college students. Finally, we obtained 455 complete and useable responses in Generation Z sample set from the face to face survey from the total of 475 collected surveys. Respondents were explicitly asked to reflect on metaverse when filling out the responses to the questionnaire items. We have eliminated thirty responses due to their non-random missing value. The non-response biasness was tested and compared the “early” and “late” respondents’ responses, based on the date of the received replies to the questionnaire (Armstrong and Overton 1977).

Data analysis

The study's one-round survey combines quantitative approaches.

To improve the indicators' validity, convergence, consensus and concordance we verify the representation of the sample compared to the population.

We apply the t-test (sample mean comparison), the first 30 per cent of responses was compared with last 30 per cent and thus, the independent sample of t-test displayed an insignificant difference between these two groups, implying no case of unit non-response bias with the collected. Moreover, we provided a sticky to each respondent when they began to fill up the questionnaire to elicit the honest and true responses from the chosen sample. Offering gifts (such as coupons, cash incentives and samples) in face-to-face interview is widely practice among the researchers to motivate survey respondents and it improves the completion rate (Chen et al., 2015).

Results

After investigating the socio-demographic characteristics of the respondents and analyzing the section relating to digital innovations in tourism, the questionnaire aims to answer the second research question analyzing the section of synthetic tourism. First, the knowledge of augmented reality, virtual reality and metaverse of the respondents was examined: most of the respondents (78%) say they know augmented reality, also from a previous study conducted by (Buhalis et al., 2022b) the market needs to deeply understand these new innovations to be able to gain an advantage, for them the metaverse will be a big change like the Internet, but in their study the sample analyzed seems to have less knowledge of this innovation. As for virtual reality, almost all respondents (92%) say they know it and the majority of respondents (82%) say they know the metaverse. Several questions were asked to analyze how the interviewees wish to use the metaverse as a tool for organizing their trip (choice, booking, purchase). The items proposed are the following: metaverse can suggest purchasing a tourist experience in a travel agency (72%), it can review the rooms of the hotel for next travels (8%) and, using it, respondents can know the avatar of your companion (15%). Some questions ask the respondents indicate the level of interest in using the metaverse as a tool to increase experience in the trip: sightseeing the cities, vacation in a resort village, visit a zoo to discover extinct animals, live a past travel experience, participation in exhibitions, fairs and conferences, attendance some concerts, live the experience of discos, festivals, etc., interact with the local community.

Another question aims to know if respondents would use similar technology for their travels if they had the opportunity: 461 answered affirmatively. Most of the respondents (93%) argue that a trip into the

metaverse should cost less than a real trip, 6% say that a trip to the metaverse should cost the same as a real trip. Only 1% of respondents think that a trip to the metaverse should cost more than a real trip.

From the same study of hospitality businesses should plan for the adoption of Metaverse in their business operation and appreciate the hybrid mode of hospitality service offering (Buhalis and Karatay, 2022a). Even if these technologies in Italy are still far from the market, and not many hotels, restaurants and tourism businesses have invested on it, they should evaluate them as competitive driver.

In another paper, these kinds of technologies have suggested the creation of new business models that should have change management, strategy, human resources, food and beverage, revenue management and entrepreneurship to appreciate the full impact of Metaverse adoption in hospitality businesses. Exploring opportunities in business model innovations (Kraus et al., 2022; Noone et al., 2022) should ensure that sustainable.

A further question was asked about the advantages of being able to travel into the metaverse. Four possible items were presented. Metaverse can test an experience or an attraction that is on the other side of the world, can improve the booking experience, allows people that don't have the possibility to travel, or it is an escape from real life.

The variable that has obtained a higher score is "allow those who do not have the possibility to travel", following "testing an experience or an attraction that is on the other side of the world"; then "temporarily escape from reality.

Customer attitudes and behavioural intentions towards metaverse will likely be positive (Filimonau et al., 2022) however, design and user experience towards new users will be the first obstacle (Klein et al., 2020) attributed, for example, to the issues of unanticipated functionality and usability may hamper customer acceptance of novel digital technologies.

There is little doubt that technology-savvy generations Y and Z will be attracted to metaverse in industries (Buhalis and Karatay, 2022a).

At the end of the questionnaire, researchers put the following open-ended question: "in your opinion, could there be other benefits to travel to the metaverse?". 127 responses were collected. One of the advantages of the metaverse is the inclusion of those who may experience difficulties in dealing with a trip such as people with disabilities, elderly people.

From a recent study it is possible to provide an advanced customized support system for the elderly by utilizing metaverse (Cho, 2022) techniques not only for the elderly who want to live an active life in society but also for the elderly who need care in a nursing hospital. The metaverse, as last result of our study is confirmed from generation Z as an opportunity also for older people that don't have the possibility to travel, to experience the world,

transforming Metaverse not only in an opportunity for tourism but also entering the Health sector, creating a new construct that we can define as health-tourism virtual travels.

Discussion

The paper investigated the knowledge and the degree of appreciation towards synthetic tourism and the metaverse. The analysis of the data collected shows that the tourist shows that only a little part of the sample has never heard of the metaverse. Once this reality and its functioning were explained, it was possible to deepen their opinion on the metaverse and its use for travel. The fields of application are endless: choice, booking and travel organization. The metaverse turns out to be a useful and supportive technology for the tourism industry. The possibility to preview the destination or the rooms of the accommodation facility is a big opportunity that most respondents consider innovative and challenging. As far as the travel experience is concerned, the analysis shows that most of the interviewees would use the metaverse as a tool to live a past experience. The metaverse can also focus on the dimension of emotions to attract more and more people. Furthermore, most respondents would use similar technology to travel. About the price expectation of a trip into the metaverse, the perception by the sample is that it should cost less than a real trip. Finally, conflicting opinions emerged: some respondents believe the metaverse losses authenticity and someone else describe advantages: inclusiveness thanks to the reduction of prices, architectural barriers and the possibility of shortening distances.

Conclusions

The advent of the Internet and technology has revolutionized tourism sector by making important changes and influencing trends in the market. Through the digital tools, tourists have become more and more demanding and independent: they communicate directly via web platforms with basic service providers, bypassing traditional intermediaries and using new online travel intermediaries. Not only have people been conditioned by this change, but also companies have had to adapt to new methods, no longer linked only to traditional marketing but also to digital marketing.

The paper argues that marketing 5.0 will be the marketing of the future in the metaverse. Those technologies imitate the human to create, communicate, share and increase value along the customer journey. The Z generations, digital experts, will be the tourists of the future who will require immersive experiences increasingly linked to technology. For this reason, companies will be competitive if they will be able to give new, intangible value to metaverse's service. The results obtained from the survey show that the essence of the metaverse is offering opportunities to tourists by improving

their customer journey, the path that each customer takes before making a purchase. This work contributes to understand elements of tourism consumer behaviour of Generation Z. Given the five trillion economic growth US has set for herself, having nation's average as 19 and in Italy by 2031 the income of Generation Z will exceed that of Millennials (Bank of America 2022; Istat 2019), this topic is vital for the tourism organizations to continue the study.

There are some limitations to this study that future research can address.

This paper is limited by its focus on a part of generation Z respondents (aged 20-25) perspectives on metaverse in Italy. By collecting little data from respondent under 20, research could not directly compare generation Z with generation X and Y on metaverse engagement. A cross-generational study between upcoming generation Z (aged 10-19), generation X, and the generation Y could determine the generalizability of our results beyond generation Z. Furthermore, re-running this study with no-internet users of generation Z will uncover how generalizable generation Z perceptions of metaverse through directly comparable data. Our use of Italian language in questionnaire limits the validity of research in Italy. Repeating our study with generation Y and X will allow for researchers to better generalize and contextualize our findings. Our results also focus on Milan: one of the Italy's largest and most affluent cities in Lombardy region. As a prosperous urban region, our results generalize to other Italian cities and regions, including isles such as Sardinia and Sicily. Complimentary research into rural – or other European urban – areas building on this paper's results will expand our understanding of generation Z perceptions toward metaverse. Doing so may help deliver a more extensive plethora of cognitive-based platforms instead of a one-size-fits-all approach.

This study wasn't conducted on an international sample of respondents from a wide variety of countries. This didn't allow to cover somehow respondents' different cultural backgrounds. However, the sample size was relatively small, which limited the possibilities for more advanced statistical analysis methods such as structural equation modelling. Thus, it might be interesting to send put more questionnaires in different language to increase the number of respondents. A large international sample would open to examining interrelationships between cross-cultural variables. For instance, cultural variables might influence perception of metaverse. Other functional relationship could be tested; for example, age or gender might influence metaverse negatively. The fact that a non-probability sampling method was used means that the results cannot be generalized to the population of non-Italian digital tourist. Rather, the findings would be seen as a first step towards shedding some light on the metaverse in generation Z who share the same interest. A large-scale survey or experimental design could be conducted to

take the results of this study further. Moreover, big data analytics derived from metaverse might reveal interesting insights that might be juxtaposed to the findings of this analysis. Findings of this study describe generation Z as people who are influenced by digital, but not yet in a radical way by influencers. This could lead to the need to understand the impacts of a similar study between 5/10 years after this to understand if the results will remain the same or digital world and travel bloggers will rise their importance, given the continued growth of digital contents, it could even achieve the opposite result of starting to decrease the importance of metaverse in tourism. The above limitations do not diminish the significant contributions this research makes to the literature about metaverse and generation Z. Further research may also provide a causal overview of adopting metaverse strategies and business models in the tourism marketing.

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