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TWIN TRANSITION IN THE ITALIAN TOURISM INDUSTRY

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Dedication

A mia madre che con la telepatia riesce a capire il mio umore solo ascoltando la mia voce al telefono, e a mio padre per tutte le chiamate per commentare la prestazione dell'Inter nel post partita.

A mio fratello, la persona che mi ha fatto più ridere in assoluto, che con i suoi reel mi ha dato il buongiorno e la buonanotte, e la persona a cui tengo più di tutte.

Ai miei nonni e a tutta la mia famiglia, che avrei voluto vedere più spesso in questi due anni ma a cui ho pensato ogni singolo giorno.

A mio nonno Mario che è sempre con me.

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A Padova che è stata casa mia e che mi ha visto cambiare in questi due anni.

Declaration

Dichiaro di aver preso visione del “Regolamento antiplagio” approvato dal Consiglio del Dipartimento di Scienze Economiche e Aziendali e, consapevole delle conseguenze derivanti da dichiarazioni mendaci, dichiaro che il presente lavoro non è già stato sottoposto, in tutto o in parte, per il conseguimento di un titolo accademico in altre Università italiane o straniere. Dichiaro inoltre che tutte le fonti utilizzate per la realizzazione del presente lavoro, inclusi i materiali digitali, sono state correttamente citate nel corpo del testo e nella sezione ‘Riferimenti bibliografici’.

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Mario Lorenzini

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INTRODUCTION AND SUMMARY

THE REASON FOR THIS DISSERTATION – The purpose of this dissertation is to analyze the profound Transformation occurring within the Italian tourism sector, observing this change through new interpretative keys. COVID-19 and the spread of new technologies related to Industry 4.0 have driven and enabled a critical change in one of the most influential sectors of our economy. While it is true that Italy has always thrived on tourism, it is also true that this sector tends to evolve along with new trends. It becomes crucial, therefore, to be ready and correctly perceive the ongoing transformations. On one hand, the digital revolution led by new technologies, and on the other hand, the need to integrate sustainability concepts even in the tourism industry, are the drivers of the analysis I wanted to undertake in this thesis.

A comprehensive understanding of tourism's development locally and globally becomes the foundation of this analytical endeavor, understanding the changes that have occurred with COVID-19 and the emergence of new trends. The dissertation goes deeply into the complexities of the digital revolution and emphasizes how important it is to integrate sustainability ideas into the travel and tourism sector. It becomes crucial to be familiar with new technology and how they integrate seamlessly. The ultimate aim is to bring sustainability goals into line with broad economic objectives, guiding the Italian tourism industry toward adaptability in order to determine its future course.

FIRST CHAPTER – TOURISM IN ITALY: FACTS & FIGURES – In this chapter, the main objective is to provide a clear and detailed overview of the expansive landscape of the global tourism industry with a particular focus on its manifestation in Italy. This endeavor will include a deep examination and comparison delineating the contrasts between a pre and post COVID-19 era. A thorough analysis of the numerous meanings, nuanced interpretations, and diverse uses of the term “tourism” will be conducted.

This investigation aims to reveal the various facets that “tourism” encompasses, examining the multitude of ramifications it has at both micro and macro levels. Finally, the chapter will culminate in a comprehensive presentation of the latest trends that have emerged in the recent years, having a noticeable impact on the direction that the tourism industry is going. These new developments are crucial, and they have a significant effect on how the various stakeholders, that are deeply involved, perceive the world.

SECOND CHAPTER – THE DIGITALIZATION IN THE TOURISM INDUSTRY – Following a comprehensive introduction to the broad field of Digitalization, the dissertation continues proposing a meticulous and insightful overview that navigates through the complexities of the cutting-edge technologies arising from the revolutionary era of industry 4.0. Every technological component is explored, addressing its practical complexities and features they present in the ever-changing tourism sector. Simultaneously, a critical eye is trained on the possible influence that every technology could have on the market, opening up a world of opportunities that spread across the industry.

The chapter follows focusing on examining the Metaverse as a powerful and persuasive response to the numerous problems arising from the constant emergence of new markets and trends. The Metaverse appears also as a tangible way to rethink and reconfigure tourism and to align it to the novelties arising from the market.

THIRD CHAPTER – THE SUSTAINABILITY IN THE TOURISM INDUSTRY – The chapter begins with a clear emphasis on how important it is, and with an exposition providing a profound definition of Sustainability. With a thorough examination of the various interpretations and meanings that surround the concept of sustainability, this introduction

highlights the subject's fundamental freshness. The chapter follows adopting a firm position and exploring in detail the crucial function that Sustainability plays in the vast field of tourism. Through the lens of a multifaceted perspective, this investigation examines and analyzes the complex interactions between environmental, social, and economic Sustainability. Every aspect is examined in great detail, highlighting the mutually connections that support the Sustainability paradigm in the travel and tourist industry. The final section of the chapter functions as a persuasive analysis, highlighting the factors driving tourism, the challenges, and the opportunities it presents for stakeholders underlining the critical role of Sustainability within the tourism industry.

FOURTH CHAPTER – THE FOSCARINI CASE STUDY – The fourth chapter discusses the business case The Foscarini, a renowned hotel that is situated in the town of Mogliano Veneto. The content is the result of a guided visit arranged by the owner Patrizio Bof, enthusiastic entrepreneur who has brought revolutionary changes that may alter the landscape of the hospitality sector. As a result, this chapter transforms from a textual investigation into an excellent model that represent an example that searching for a perfect union of innovation and sustainability is a realistic goal that may be achieved.

The chapter follows with the exploration of parallel themes that emerged during the visit: the introduction of new business models that can be applied and replicated by other players in the tourism sector; an analysis of the hub-and-spoke model, which involves a new network of activities that are physically and seemingly distant, but which are actually connected through the use of new technologies; an analysis of trends and needs of the new generations, to understand how businesses evolve taking into consideration these aspects; and finally, the necessary skills required for the new professional roles operating within these new business models.

TOURISM IN ITALY: FACTS & FIGURES

1.1. Introduction

Italy has long been one of the world's most coveted tourist destinations, renowned for its rich history, vibrant culture, breathtaking natural beauty, and delectable cuisine. The Italian economy has always relied heavily on the tourism industry as one of its main drivers, helping it grow and prosper; Italy allows a wide variety of tourist attractions to spread along the territory.

In 2020, the COVID-19 pandemic slowed down industry performance, and the effects have been prolonged throughout the following years. However, since the end of restrictions in 2021, Italian tourism has slowly returned to the pre-pandemic levels. This recovery has been possible thanks to the wide offer of the sector, in terms of the variety of attractions that allow the presence of tourists along the whole country 12 months per year (WTTC, 2023).

According to the Unesco, The Bel Paese is ranked first for Unesco World Heritage sites, with 58 natural and cultural properties distributed throughout the country. Besides traditional tourist destinations, foreign visitors can also enjoy new tourist trends; the love for a movie may drive the viewer to want to immerse himself in the spirit and scenery he has seen on the small or big screen. The settings also play a crucial role. So, the excellent cinema culture that belongs to Italy allows the development of new tourist destinations,

including rural areas. Glamping represents an alternative to camping, consisting of a new way of staying in contact with nature: it means sleeping in eco-sustainable structures made mainly of materials of natural origin, which retain the same comforts as a hotel room.

These are two examples of how Italian touristic services are evolving and how they can vary and provide attractions to all tastes and needs: on the one hand, new trends may empower the industry after the crisis following the COVID-19 pandemic; on the other hand, digitalization and higher awareness of sustainability matter by customers are pushing them to seek alternative ways to spend their free time.

The goal of Italian tourism operators is, therefore, to be ready. The interest in the sector's development not only regards those directly involved (such as operators of reception facilities, travel agencies, and shopkeepers in tourist areas) but also economic activities that produce goods and services not exclusively attributable to tourism, such as restaurants and transport.

The chapter is organized as follows.

The second paragraph analyzes the tourism industry worldwide, comparing data from pre-pandemic period and how the industry reacted to the COVID-19 pandemic. Third paragraph gives an overview of tourism in Italy, its importance in the economy of the country and all its features. In the fourth paragraph I listed all the shades of the word "tourism", from its traditional meaning to new trends developing in the last few years. In the final paragraph I summarized the topics and arguments of the entire chapter.

1.2. Covid-19 pandemic and Tourism Industry in the World

The COVID-19 pandemic represents a significant turning point in our recent past. Since 2019, it has influenced our social and economic aspects, and among them, the tourism industry worldwide. The travelling and tourism industry is one of the largest service industries in the world (Roman *et al.*, 2022). Limits to global travel, such as quarantine, obligatory COVID-19 tests, lack of homogeneous health and safety global procedures, and successive waves of infections, have all caused significant economic losses (Roman *et al.*, 2022).

1.2.1 Trends of tourist arrivals

Statista (2022), through an analysis of the World Travel and Tourism Council (from now on, WTTC), shows that the pre-pandemic level of total contribution to the GDP of the industry was 10,4%, and the total spending (for both leisure and business) was 6,25 trillion dollars. Three years after the broke of the COVID-19 pandemic, the contribution to GDP has had a slight recovery at 7,6%, whereas the worldwide spending turned to 3,65 trillion dollars in 2021 (WTTC, 2022). In 2018, Europe was first in the world in terms of international arrivals, reaching 713 million, which was over half of the global volume and a year-on-year rise of 6%. (Roman *et al*, 2022). With regard to means of transport, air flight is one of the most popular for international tourism. In 2020, passenger air transport arrivals in Europe decreased by 72%. The highest decreases were reported in April, May and June, respectively of -99%, -98% and -95%. (Roman *et al.*, 2022).

According to the World Tourism Organization of the United Nations (UNWTO, 2022), international tourism receipts worldwide have reached 1,07 trillion dollars in 2022, after an increase of 73% with respect to the previous year. Despite that, this value is still far from that of the pre-pandemic period (1,46 trillion dollars in 2019). WTTC also shows the impact the COVID-19 pandemic had on employment levels; in 2020, the global travel and tourism market had lost roughly 62 million jobs, and in 2021 this loss decreased to 44 million jobs compared to 2019. Asia-Pacific area was the one that suffered the most employment loss, with 25,5 million fewer travel and tourism jobs in 2021 compared to 2019 (more than half of the global job loss). Europe experienced, for the same period, a loss of 3,17 million jobs.

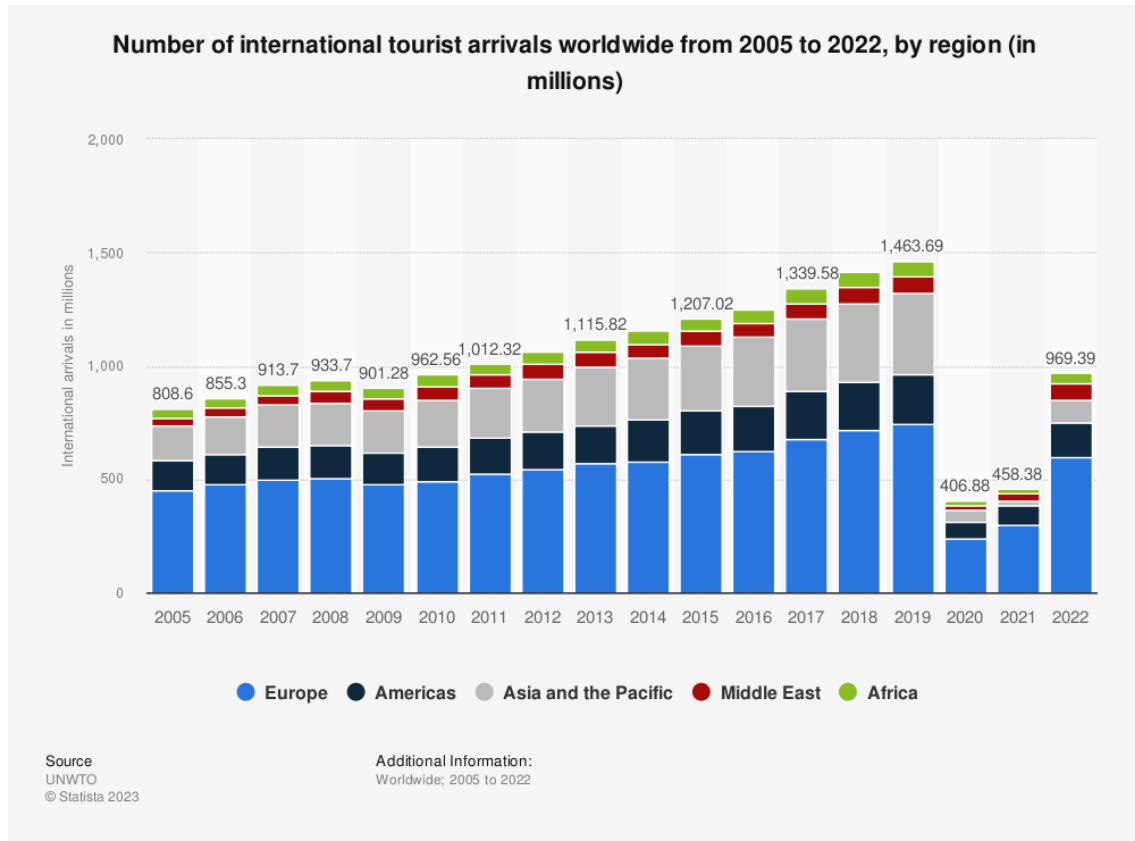
The number of international tourist arrivals worldwide doubled in 2022 (Figure 1) with respect to the previous year, and Europe recorded the highest rebound of travellers, compared to other areas, with around 595 million arrivals. Although this represents a significant annual increase, we are still far from pre-pandemic levels (UNWTO, 2022).

1.2.2 The role played by OTAs

Online travel agencies (from now on, OTAs) represent a reference point for the tourism and travelling market trends. Travel Tech Essentialist (2022) shows the percentage change in revenue of the leading OTAs worldwide; after a drop in 2020 due to the COVID-19 pandemic, in 2021 OTAs recorded a bounce back, and among them, Expedia

and Booking (two of the most prolific online travel agencies) had an increase in earnings of 60% compared to 2020. The pandemic severely impacted the hotel industry in Europe in 2020. In February of that year, the occupancy rate was above 60%; after the introduction of restriction in March, the rate dropped to 11%. Two years later, in April 2022, the occupancy rate bounced back to 63% (UNWTO, 2022).

Figure 1 Number of international tourist arrivals worldwide from 2005 to 2022



Source: UNWTO, Statista 2023

Among the OTAs, Airbnb is a platform that provides the possibility to rent accommodation from people willing to share their homes, and at the same time, gives the possibility to book “experiences” in the area you are visiting. In 2020, Airbnb reported 193,2 million nights and experiences booked, 40% less than the previous year (Airbnb, 2023). In 2022 Airbnb far surpassed its 2019 record (326,9 million), reaching 393,7 million bookings of nights and experiences. It is interesting to see how, in 2022, Airbnb recovered and surpassed its pre-pandemic levels almost worldwide, and the region with the highest number of bookings was EMEA (Europe, Middle-East and Africa). However, the Asia-Pacific

area had the lowest number of bookings (40 million), and it is the only region in which the level is still below the threshold of 2019 (Airbnb, 2023).

Social distancing measures and general caution towards public places seriously impacted restaurant service consumption. OpenTable (2022) recorded the year-over-year change of seated diners in restaurants worldwide for the years 2020-2022 compared to 2019; after a drop in 2020 and a slight recovery in 2021, in August 2022, the number of seated diners was “only” 0,81% less than that of the pre-pandemic period (OpenTable, 2022).

The epidemic led to a slowdown in the speed of economic growth all over the world. This decrease mainly affected those countries that, more than others, rely on tourism as one of the most critical industries for their national economies. (Roman *et al.*, 2022). The COVID-19 pandemic opened new opportunities for the tourism industry to introduce innovations. Entrepreneurs started to make decisions taking into account changes in the environment surrounding them in order to enhance their competitiveness. Industry 4.0 and new technologies allow alternatives, such as virtual tourism, that refer to the adoption of extended reality technologies (such as virtual reality) to create travel experiences without the implication of mobility. Market Data Forecast (2022) estimated a global virtual tourism market of 5 billion in 2021, and this value is forecasted to grow up to 24,1 billion in 2027, showing how innovation represents a fundamental aspect of the future of the tourism industry. Therefore, the development of new trends is now accelerating in order to fight against the consequences for tourism of COVID-19. (Roman *et al.*, 2022)

1.3. An overview of Tourism in Italy

In 2022, the total contribution of travel and tourism to Italian GDP amounted to roughly 194,4 billion euros, three percent lower than in 2019. (WTTC, 2023).

The tourism balance represents an alternative measure that helps to picture the impact of tourism within a country; it is given by the difference between the inbound tourism expenditure and the outbound tourism expenditure. In May 2023, the Italian’s tourism balance was 15% higher than the previous year, surpassing the pre-pandemic level and reaching 2,3 billion euros (Banca d’Italia, 2023). Tourism in Italy can follow two types of distribution, both by the reason of travelling or the origin of tourists. Leisure travel represented 84% of the share of travel and tourism spending in Italy in 2022, while in 2019

was 86%; business spending was, instead, higher in 2022 (16%) compared to 2019 (14%). Domestic spending increased by two points percentage in 2022, compared to 2019, reaching 73%; international spending lowered by 30% to 27% in 2022. (WTTC, 2023).

1.3.1 International Tourism in Italy

International arrivals in Italy bounced back in 2022, reaching 74,7 million visitors. Although this number is increasing year over year, we are still far from pre-pandemic levels (96,2 million). If we consider, instead, only the business tourists, it was 13,4 million in 2022, closer to 2019 levels (15,6 million). The highest share of travellers in Italy in 2022 came from Europe and North America, and first positions were occupied by neighbouring countries: Germany was the first country per origin of travellers in Italy, followed by France, Switzerland and Austria (Banca d'Italia, 2023).

According to the analysis of the Banca d'Italia, in 2022, foreign expenditure in Italy doubled with respect to the previous year, reaching a level near that of the pre-pandemic period, around 44,3 billion. Average spending per night has increased while the value of the overnight stay is lower than in 2021; an increase in the average length of the trip has partly compensated for the reduction in travelers. Almost half of the increase in 2022 is attributable to travelers from EU countries, and expense value has overcome the 2019 level. Flows from North America have also influenced, even if the level is still below that of the pre-pandemic period; Russian tourism expenditure has instead halved (Banca d'Italia, 2023).

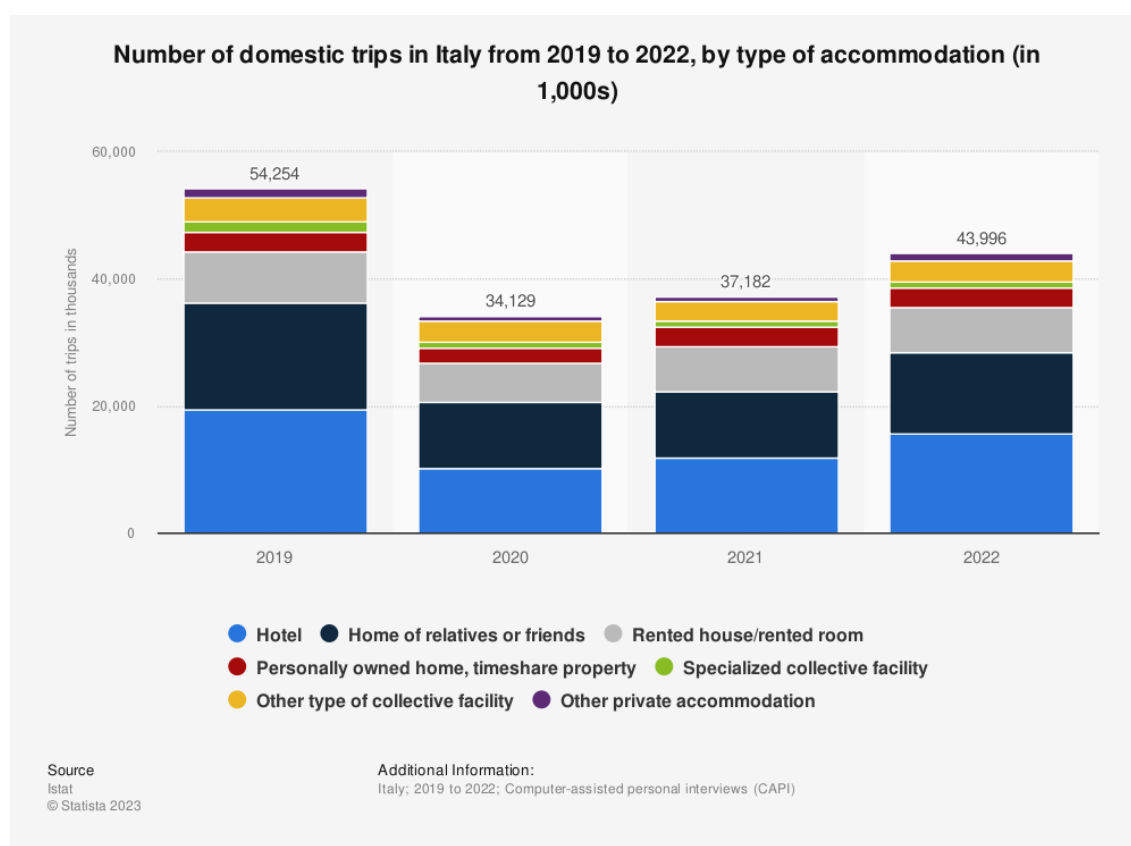
1.3.2 Domestic trends, accommodations and industry insights

As seen before, domestic tourism represents a significant share of the Italian tourism market. In 2022, domestic trips have been 44 millions, 18% more than the previous year but still below pre-pandemic levels. The majority of Italian tourists chose a hotel as accommodation during their domestic trip (Figure 2), followed by the home of relatives or friends and rented houses or rooms (ISTAT, 2022).

Emilia-Romagna and Tuscany, in 2022, recorded the highest numbers of overnight stays for domestic leisure trips, ahead of Apulia and Sicily. With regards to business trips, northern regions (such as Lombardy and Veneto) registered better numbers in terms of overnight stays. In 2022, total overnight stays related to business trips was 3 million, 23% more compared to the previous year; in 2018, the volume of domestic business tourism

peaked at 6,5 million. The difference between pre and post-pandemic levels may also be due to the spread of remote working (ISTAT, 2023).

Figure 2 Number of domestic trips in Italy from 2019 to 2022, by type of accommodation



Source: Istat, Statista 2023

ISTAT also analyzes the diffusion of same-day trips among Italians; in 2022, there were 46 million, most of them for leisure purposes, followed by visiting friends and parents and visiting for cultural purposes. The number of accommodation establishments in Italy was 224.644 in 2022; particularly, hotels were 32.425 while non-hotels were 192.219. Both alternative accommodations grew with respect to the previous year. (ISTAT, 2023). Among the hotels, the majority are 3-star hotels, ahead of 2-star and 4-star hotels. Quite common are also tourist residences. The region with the most hotel establishments is Trentino-South Tyrol, followed by Emilia-Romagna and Veneto (ISTAT, 2023).

Looking at the entire Italian hotel industry, it had revenues of 8,05 billion euros in 2022 and was forecasted to increase up to 9,09 billion euros in 2027 continuously. (STATISTA, 2023). Among hotel chains, international brands lead the ranking for the higher presence

in Italy: *Best Western*, *B&B*, and *NH Hotels* had respectively 84, 59 and 39 hotels in 2022; Italian brands, instead, had smaller numbers, *Blu Hotels* 30, *TH Hotels* 29 and *Apogia Hotels Beach* 28 hotels. (Horwarth HTL, 2023). The less expensive alternative to hotels is bed and breakfast, which is highly diffused in Italy; notwithstanding a steady increase during 2010's, the number of B&Bs has decreased gradually since 2020, reaching in 2022 33,4 thousand. (ISTAT, 2023). Finally, with regard to accommodations, agritourism establishment represents an evergreen alternative accommodation, particularly in rural places. The number of agritourism grew in the past years, reaching its peak in 2018 (20,3 thousand), and in 2022 grew by 2,2 percent compared to the previous year, recording 19,5 thousand establishments (ISTAT, 2023).

1.3.3 Employment dynamics and industry structure

According to the employment analysis of Inps, in 2021, there were 1.030.116 employees and 173.414 companies with at least one employee. Seasonality has always been a characteristic of the sector, which was evident from the variability of companies and employment in the different months of the year. Indeed, Inps also recorded the lowest value of companies (122.611) and employees (625.525) in February and the highest in August (207.510 companies and 1.391.222 employees). The industry structure is characterized by small companies with, on average, 5,8 employees; as we saw, this number grows during summer. Furthermore, the numbers above consider only the dependent employment and not the work performed by owners and family workers, who account for at least one-third of the overall labor input in the sector. (Inps, 2022). Tourism strongly relates to the young labor force (58% of employees are under 40 years old, and 35% are under 35) and attracts more women than men (52,7% of female workers and 47,3% of male ones). In 2021, compared to 2020s values, employment in the tourism sector has risen by 75 thousand units (+7,8%). Companies with dependent labor have grown as well by 2,8%. However, notwithstanding the slight recovery, there is a loss of 20% among employees and of 13,5% among companies compared to pre-pandemic data. The same report shows that among the tourism companies with employees, more than 80% belong to the public sector, and only 13% belong to the receptive one; 2% belong to intermediation, whereas the number of spas and theme parks is more limited.

The more than 173 thousand companies are distributed homogeneously: 25% and 23% between North-West and North-East, 22% in central Italy, and 30% in the South.

Seasonality strongly influences Italy's tourism, particularly in regions characterised by mountain and seaside tourism (like Valle d'Aosta or Calabria). The phenomenon is less evident in regions where cultural cities attract tourists, such as Lazio and Veneto (Inps, 2022).

1.4. One word, thousands of meanings

Seasonality in tourism is commonly regarded as a problem due to the inefficient use of available facilities throughout the year. This phenomenon is widely acknowledged as strictly related to tourist destination attributes (such as climatic conditions, events, and physical attractions). Still, it also depends on factors concerning the tourists themselves and their place of origin (for example, institutionalized holidays and shifting preferences). In addition, there are various seasonal patterns associated with various types of tourism. 'Sun and sand' tourism, for example, is clearly concentrated primarily during the summer. the summer season, whereas ski tourism, of course, is concentrated throughout the winter. (Vergori, 2019).

Italy, from this point of view, allows a wide range of choices during peak seasons. At the same time, the *Bel Paese* is absolutely one of the world's richest countries, at least in terms of cultural and historical heritage. Many ancient civilizations have left their mark on it, as have more recent artistic and cultural influences.

Art, culture, and history are essential motivators for many of the tourists who visit Italy each year. Furthermore, they serve as an effective promotional vehicle for the destinations, even in market segments that are less culturally sensitive. (Borg, 1996). Enclosed in cultural tourism, we find religious tourism; it is not easy to distinguish the two types of tourism since, according to European tradition, churches, shrines and holy places are rich in works of art and artistic, architectural, pictorial and sculptural expressions. In Italy, there are almost 1.500 sanctuaries, 30 thousand churches and hundreds of diocesan museums (Bravi, 2019). Religious tourism is aimed at those interested in visiting these places, without those who practice it being motivated by a spiritual adhesion. This phenomenon does not regard only specific places or buildings but also involves evidence of

a widespread religious faith carried on by specific traditions. Within this category, it can also be considered the pilgrimage towards a specific place as the most ancient form of tourism (Bravi, 2019).

Still, Vergori (2019) states that cultural tourism, on the other hand, is non-seasonal in nature and is widely recognized as one of the most important resources for addressing seasonality in tourist destinations. This is primarily due to the fact that “culture” is not limited by the weather and can be provided all year. For this reason, cultural tourism may assist in mitigating seasonality by extending the high season. Cultural tourists, according to stereotype, are older people with higher educational and socioeconomic status than non-cultural tourists (Vergori, 2019).

The age of the tourists influences their choice of different types of tourism. Because they are less reliant on institutional holidays, older tourists are less obligated to travel during a specific season. In other words, they could be a target group for anti-seasonality policies, especially given that institutional and socio-cultural factors appear to play a larger role in determining tourism seasonality than climatic and environmental factors. The research presented by Vergori (2019) confirms that cultural tourists visiting European destinations are highly educated and have relatively high incomes, but the stereotype of cultural tourists as elderly people is not supported. People of all ages travel for cultural reasons, with the peak age group being between 20 and 30 years old. (Vergori, 2019).

Ketter (2021) analyzes the so-called Millennials as the first “digital native” generation and the first “always connected” generation. Technology is important in their lives, and they are tech-savvy, hyper-connected, and constantly use mobile phones, social media, and internet-based technologies. Another distinguishing feature of this age group is their preference for experiences over possessions. The characteristics and travel behaviors of European Millennials, as well as their growing importance in global tourism, *drive four major tourism micro-trends*, shown by Ketter (2021), that have an impact on the present and future of tourism (Figure 3).

Figure 3 Major tourism micro-trends: Ketter's Model



Source: adapted from Ketter, 2021

1.4.1 Micro-trend #01

The first is *Creative tourism*; building life experiences is a top priority for Millennials, and living a meaningful and happy life is about creating memories through a variety of experiences.

As a result, Millennial travelers are eager to discover, interact with, and experience the world. They are open-minded travelers who seek freedom and flexibility and see travel as a great way to learn about the world and themselves (Ketter, 2021). Millennials are an active audience who, in comparison to previous generations, are more likely to travel independently and to be open to new tourism products and experiences. These characteristics fuel the micro-trend of creative tourism, which involves the proactive planning and execution of unique personal experiences tailored to the tourist's unique interests, personality, and lifestyle (Ketter, 2021). In this way, Millennials want to take control of their experiences, whereas previous generations were more likely to let brands manage their travels. Millennials prefer to create their own unique experiences over cookie-cutter ones, and they prefer to travel independently as foreign independent travelers. Furthermore, rather than relying on the advice of travel agents or participating in package tours or group travel, they are more likely to plan their own travel itineraries and travel independently (Ketter, 2021).

Figure 4 Micro-trend #01: Creative Tourism



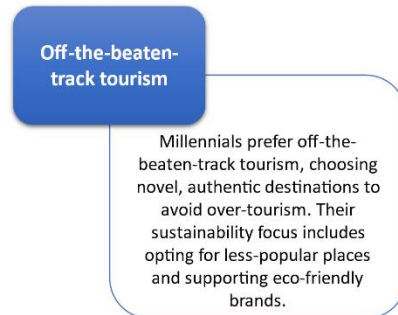
Source: our analysis

1.4.2 Micro-trend #02

Off-the-beaten-track tourism is the second micro-trend; the desire for novelty is part of what drives people to travel: the desire to experience new things, visit new places, and learn new things.

When it comes to choosing a destination, Millennials prefer less popular destinations, like emerging destinations that they consider “authentic”; they are less interested in the traditional destinations that their parents prefer. This off-the-beaten-path tourism promotes some aspects of sustainability, as these travelers avoid over-tourism and prefer under-tourism destinations. This is accompanied by environmental awareness, environmental values, and a willingness to pay a premium for sustainable brands (Ketter, 2021).

Figure 5 Micro-trend #02: Off-the-beaten-track tourism



Source: our analysis

1.4.3 Micro-trend #03

The third micro-trend is *Alternative accommodation*; one of the most noticeable differences in travel behavior between Millennials and previous generations is their preference for accommodation.

This can be seen in three aspects: first, Millennial travel has given rise to peer-to-peer/sharing economy lodging as an alternative to booking a traditional hotel. The sharing economy is popular with this generation because of its benefits, such as connection with local communities, the creation of authentic local experiences, and value for money. Second, many Millennials prefer to save money on lodging in order to spend more on unique experiences. Third, Millennials are a social generation, spending less time in their hotel rooms and more time connecting with other travelers, the community, and the world. These travel habits have resulted in a number of changes in the hospitality industry, including the rise of Airbnb and other digital platforms that list homes and homestays; the development of glamping sites and posh hostels that add a new chic to these traditional accommodation categories; and the introduction of new hotel sub-brands aimed at the Millennial market (Ketter, 2021).

Figure 6 Micro-trend #03: Alternative accommodation



Source: our analysis

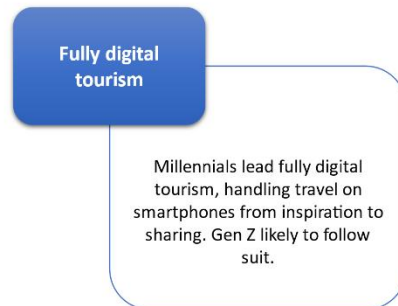
1.4.4 Micro-trend #04

The fourth micro-trend is *Fully digital tourism*; Millennials make their entire travel journey digital and mobile by performing all travel stages on their smartphones.

They get their travel inspiration from travel blogs and social media and plan their trip using user-generated content, customer reviews, and travel websites; they also book flights and accommodations through booking apps and online travel agencies, and they explore the destination using their smartphone and travel apps (Ketter, 2021). Last but not least, they share their experiences on social media, which inspires their peers to travel. Millennials, as the first digitally native generation, are also the first to demonstrate a fully digital travel journey (Ketter, 2021).

Members of Generation Z, born in the 1990s and onward, tend to share some common behaviors with Millennials: they are open-minded and fully digital, they avoid traditional tourism attractions and they prefer to create their own unique experiences. Generation Z will further support Millennials trends, adding extra fuel to these changes (Ketter, 2021).

Figure 7 Micro-trend #04: Fully digital tourism



Source: our analysis

1.5. Experiential Tourism

With regards to experiential tourism, rural tourism in Italy has always represented an opportunity for leisure and the chance to escape from the chaotic urban life. Since the beginning of this century, agritourism has been one of the highest-growing tourism sectors in Italy (Grandi, 2022). In order to make it possible for tourists to enjoy the atmosphere of the countryside and to experience the ‘real’ working farms, in Italy, “agriturismo” is a legally defined activity of hospitality performed by agricultural entrepreneurs and their family members.

The activities performed must remain connected and complementary to farming activities. From the farmers’ point of view, they have the opportunity to offer additional services, such as room rent and meal provision (Grandi, 2022). Legal definitions given by Italian legislation help to understand the difference between rural tourism and agritourism. The first one describes all the forms of tourism held in rural areas, whereas agritourism refers specifically to activities provided by a registered farmer (Grandi, 2022). If it is true that rural tourism aims at leveraging moral and economic qualities linked to the territory, landscape and local culture, culinary tourism incorporates these values all together. Food and beverages are expressions of specific cultures (Testa, 2019). *Culinary tourism*

includes several areas, such as winery, beer tourism, gourmet tourism and gastronomic tourism. It is done through locally owned and operated restaurants, breweries, wineries, culinary events, farmers' markets, and agritourism. Agritourism is one of the most important places in Italy for culinary tourists to experience local foods and beverages (Testa, 2019). In this scenario, culinary tourism represents a change in everyday routine and eating habits and the opportunity to try new food experiences and to socialize and be together with family and friends. Participation in festivals and events related to local food may help build social relations and contribute to making the tourist experience more pleasant (Testa, 2019).

As reported by Testa (2019), there is a specific profile of culinary tourists: they usually have a high level of income and high education and an age range between 35 and 45 years. The driver of the interest of these tourists towards culinary tourism is the perception of high quality associated with local food. It is perceived as more nutritious and healthier than that sold in the mainstream supply chain, also because it has travelled a shorter distance. Another motivation, more and more frequently expressed, is related to environmental protection and support of the local economy (Testa, 2019).

As the topic of customer experience is becoming even more relevant, other forms of rural tourism are developing in Italy; *Glamping* (short for glamorous camping) provides the experience of nature and authenticity without sacrificing comfort (Angelini, 2023). Travelers, in general, are more concerned about the environment, and they are willing to pay more to stay and enjoy themselves at environmentally sustainable destinations. In this scenario, new accommodation options appear on the market. The glamping experience takes place outdoors, in an isolated environment surrounded by nature. The environment outside must be managed at the same level as the tangible parts inside the accommodation (Angelini, 2023). A combination of comfort and luxury in glamping can range from more accessible solutions to very exclusive options. This type of accommodation originated in warmer regions such as Africa and Australia and then diffused in colder climates such as European countries. In Italy, it is a relatively new phenomenon that is rapidly spreading; guests can sleep on comfortable beds inside low-impact structures made of eco-sustainable materials, which qualify as sustainable structures. During their stays, they can receive high-quality services, many of which are geared toward learning about the area, its culture, and customs (Angelini, 2023). People who choose to go glamping will most likely

want a holistic, multidimensional experience in an environment that is different from the norm because it is more in line with their personality, values, and interests. It was stated that in nature-based tourism, environmental quality and appropriate levels of customer service play an essential role in customer satisfaction. Glamping fits into this scenario and also helps to reduce over-tourism and its negative effects on a territory and its inhabitants (Angelini, 2023).

As we have seen, tourists' choices are no longer related to the traditional sun, beach and beautiful sceneries. The seek for new and enthusiastic destinations is broadening into new markets demanding, more complex and even unusual (Laylo, 2022). This is the case of *Dark Tourism*, that is the visitation to places where tragedies or historically noteworthy death has occurred and that continue to impact our lives. It refers to places of death, murders, battlefields or even sites affected by environmental disasters such as hurricanes or earthquakes. The attention given to this kind of place is attributed to a curiosity towards mortality and the darker aspects of humanity. This trend is investing in several countries, and it intensified from the nineteenth century onwards, even if has become the focus of increasing only more recently (Asia Pacific Journal, 2022).

Another interesting phenomenon growing these years is *Movie Tourism*. It includes flows of tourists towards places they have seen in a movie or, more generally, on the screen. In Italy, during the last few years, there has been a great interest towards movie tourism while, on the contrary, the increase in international movie tourists has not been as significant (JFC, 2023). The difference also stands in the motivation that moves the tourist. Italians aim to discover the places where last year's films and TV series took place. International movie tourists (particularly North Americans) are attracted by places of famous screenplays, where important films in the history of Italian cinema have been shot (JFC, 2023).

1.6. Conclusion

This chapter aimed to give an overview of what tourism is, first globally and then focusing on the Italian situation. During this introduction, I wanted to emphasize the role of COVID-19 as a watershed event that had consequences worldwide and reshaped tourism at all levels. Italy profoundly relies on the tourism industry, and it is reflected in how its

economy reacted to the spread of the COVID-19 pandemic; meanwhile, it is also noticeable in the way the tourism sector is trying to recover, getting out from complex years. Alongside the classic tourist destinations, I reported some examples of new trends that can represent opportunities for the development of rural areas or the creation of new jobs. In the next chapter, I will focus on digital transformation and the impact of new technologies on the tourism industry. After introducing the reasons for this transformation, I will analyze what digitalization means, and then I will talk about the different technologies that drive this transformation. At the end of the chapter, I will provide an example of applying one of these technologies to the tourism sector.

THE DIGITALIZATION IN THE TOURISM INDUSTRY

2.1. Introduction

For organizations, digital transformation is critical not only to compete but also to survive. It differs from typical business transformations; actually, the latter typically ends when a new behavior is achieved. On the other hand, digital transformations are long-term efforts to rewire how an organization continuously improves and changes. This is because technology is not only becoming more integrated into business, but it is also constantly evolving. In the case of organizations, digital transformation means also to be more efficient economically and so obtaining a competitive advantage in the market (McKinsey, 2023). The COVID-19 pandemic compelled both producers and consumers to rapidly adopt new modes of interaction. Individuals and organizations across various market segments found themselves navigating the challenge of extensively utilizing digital tools. This heightened exploration of digital tools and their applications marked a significant leap that, under normal circumstances, would have taken years to achieve. Some sectors and businesses benefited from this shift, while others engaged in experimenting with innovative solutions. Meanwhile, some simply waited, anticipating a return to normalcy (Giordani, 2020).

In general, both the supply and demand aspects experienced a period of technological upheaval, wherein consumer preferences evolved alongside producers' investments in

adopting and enhancing new digital technologies. The initial impact of Covid-19 on the digital market primarily stems from the supply side. In instances where a digital market did not exist before the pandemic due to weak consumer interest in digitalization, the economic shock induced by Covid-19 could serve as a compelling incentive for businesses to make the necessary investments in digital ventures, especially when non-digital alternatives are temporarily unavailable (Giordani, 2020).

Consequently, the digital market emerges as a response to this temporary surge in demand. Importantly, once established, the digital market persists even after the resolution of the Covid-19 crisis, enduring beyond the specific and temporary conditions that initially facilitated its emergence. In essence, while Covid-19 acts as a transient shock, its impact results in a lasting effect on the ascendance of the digital market (Giordani, 2020). The COVID-19 pandemic can be viewed as the disruptive moment, marking the transition from a period of “gradual digitalization” to one of “complete digitalization.” Prior to the pandemic, digital technologies were gradually spreading, yet their full potential remained significantly underutilized. These technologies were confined to specific sectors and applications, primarily adopted by the more advanced and experimental consumers or producers. Small businesses, traditional sectors, and individuals on the lower end of the digital divide were still in the process of catching up (Giordani, 2020).

The chapter is organized as follows.

In the next paragraph I will define what digitalization means. Then, I focus on the digitalization in the tourism industry, providing some examples of digital technologies, and finally, I will analyze the role of the Metaverse in the tourism sector.

2.2. What digitalization is

The fundamental rebuilding of how an organization operates is known as digital transformation. A digital transformation aims to gain a competitive advantage by continuously deploying technology at scale to improve customer experience and reduce costs (McKinsey, 2023). For organizations, digital transformation is critical not only to compete but also to survive. It differs from typical business transformations; actually, the latter typically ends when a new behaviour is achieved. On the other hand, digital transformations are long-term efforts to rewire how an organization continuously improves and changes.

This is because technology is not only becoming more integrated into business, but it is also constantly evolving.

Still, McKinsey (2023) indicates a series of coordinated actions are required for successful digital transformation (Figure 8):

- *the ability to develop a clear strategy that is focused on business value.* Companies should concentrate their transformation efforts on specific domains, such as customer journeys, processes, or functions, that generate significant business value. A road map should guide the transformation, outlining the solutions and resources required to change prioritized domains;
- *a strong talent pool, including in-house engineers.* Being digital entails having your own pool of digital talent working alongside your business colleagues. HR processes that are agile and digital in order to find, manage, and train talent; and a healthy environment in which the best talent can thrive;
- *a scalable operational model.* Digital transformations rely on cross-functional teams that bring together employees from various departments. Most businesses already have a few of these teams, but scaling to hundreds or thousands of them necessitates a new operating model. The digital factory, the product and platform model, and the enterprise-wide agility model are the three primary operating models to consider; distributed technology enables teams to innovate autonomously. Organizations should foster a distributed technology environment in which each team has access to the data, applications, and software development tools that they require. Recent technological advancements can aid in the creation of this distributed environment;
- *data access for teams to use as needed.* Reliable, up-to-date data are essential for successful digital transformations. Data architecture should generate data that is easily accessible by teams across an organization, and it should be assessed and updated on a regular basis. The data product, which structures various pieces of data into a coherent unit that a variety of teams and applications can easily consume, is the central component; adoption and change management are crucial. Previously, the technology adoption cycle was a straight line. Digital transformations involve a much more iterative process of designing, prototyping, collecting feedback, and improving the solution to maximize its value potential (McKinsey, 2023). Big Data is the primary driver

of value creation in cultural tourism, contributing also to the definition of experiences through innovative technology, increased tourist and business involvement, and increased personalization of the offering. In this context, Big Social Data is a subset of Big Data derived from user-generated content on popular social online services such as Facebook, Twitter, YouTube, Instagram, or forums and blogs (Cuomo, 2021).

Digital transformations have a much higher chance of success when teams focus on changing entire domains rather than just use cases. As a result, rather than focusing on just one step of a process, the domain would include all of the other activities (McKinsey, 2023). Furthermore, a successful digital transformation affects a wide range of an organization's functions, allowing them to collaborate in novel ways. The CEO and leaders' primary responsibility is to ensure the leadership team's alignment, commitment, and accountability. Without any of these, digital transformations can quickly stall. It could be not easy to evaluate how the digital transformation is going. The use of KPIs (key performance indicators) is critical. They fall into three categories:

- *Value creation.* Digital solutions usually focus on one or two operational KPIs that can be translated into financial benefits;
- *Team health.* Many digital transformations take longer than expected because their teams are understaffed, they have not adopted modern working methods such as agile, or they lack critical capabilities such as product management and user-experience design. High-performing teams, in our experience, can be five times more productive than low-performing teams;
- *Change-management progress.* These metrics track progress in developing new capabilities as well as the overall health of the transformation (McKinsey, 2023).

Figure 8 Actions required for successful digital transformation



Source: our analysis

2.3. New technologies supporting the tourism industry

The fourth industrial revolution, or Industry 4.0, is closely associated with:

- the Internet of Things (IoT),
- cyber-physical systems (CPS),
- information and communications technology (ICT),
- enterprise architecture (EA), and
- enterprise integration (EI).

2.3.1 Doing business with IoT

Sensors and cellular telephones connect objects and services in a common network that enables interaction between goods and other objects and allows service vendors to offer value proposals to clients via the internet of things (IoT) and the internet of services (IoS) (Pencarelli, 2019). Digital transformation has become essential for businesses to achieve key business objectives such as improving service quality, reducing costs, gaining a competitive advantage, creating knowledge, and maximizing revenue. It is the result of various digital innovations that create new actors, structures, practices, and values that can

change, disrupt, or complement existing game rules within organizations or industries (Alrawadieh, 2021).

IoT, for example, is a comprehensive concept encompassing various aspects of extending the Internet and the Web into the physical realm through sensor-equipped devices. These devices can detect and connect physical and digital entities using appropriate technologies. IoT requires several key features, including device heterogeneity, necessitating suitable network architecture and protocols for communication. Interconnectivity is crucial for wireless data sharing and management, especially for widespread technology distribution. Energy usage and device battery optimization, as well as location and tracking capabilities, are essential, particularly in transport systems. Connected objects must possess the ability to respond to changes in their environment through built-in intelligence automatically. Security and privacy protection are critical for user acceptance. In the IoT context, every object must be identifiable and capable of interfacing with the physical environment, even passively. Ultimately, the IoT system implies that every object communicates, is detectable, and interfaces seamlessly with its surroundings (Pencarelli, 2019).

Technological devices have significantly transformed people's lifestyles and habits, ranging from increasingly powerful smartphones and tablets to customizable wearable accessories like 'smart' watches, bracelets, glasses, and lenses. These wearables can generate augmented reality, blending information from real-life experiences with virtual elements, creating alternative worlds that replace reality. Advancements in technology have made 3D printing not only possible but also realistically accessible, allowing personalized souvenirs. Tourists increasingly use action cameras, including 180° double-lens cameras, to document their travel experiences and directly share them on their social media pages (Pencarelli, 2019).

From the perspective of the relationship between firms and customers, there is a noticeable shift in power dynamics favoring customers. This shift is attributed to the rising impact of social media and electronic word of mouth (eWOM), along with the escalating significance of online reputation management (Alrawadieh, 2021). Additionally, robotics, traditionally associated with factories, are finding applications in tourism. In the transportation sector, self-driving automobiles and airplanes are becoming prevalent, while in the hospitality sector, especially hotels, robots are employed to handle routine

tasks such as booking and managing rooms. This integration of technology is reshaping the way people experience and engage with the tourism industry (Pencarelli, 2019).

2.3.2 Tourism 4.0

Digital technologies are having a transformative impact in almost all industries and business environments.

Information technology, in particular, has transformed the tourism landscape, upending traditional operational techniques and giving rise to more sophisticated big-data-driven operational models (Alrawadieh, 2021). Another I4.0 concept is the smart factory, which uses integrated cybernetic and physical systems to assist people and machines in task execution. I4.0 aims to achieve higher levels of efficiency, productivity, and automation through features such as high digitalization, customized manufacturing, human-machine interaction, and value-added services and business. Industry 4.0 not only increases manufacturing flexibility but also allows for mass customization and improved quality. As a result, it enables businesses to meet the challenges of producing increasingly personalized products and value offerings with shorter lead times to market and higher quality (Pencarelli, 2019).

We can define Tourism 4.0 as:

« the new tourism value eco-system based on the high-tech service production paradigm and defined, as done by Pencarelli (2019), by the same six common principles as I4.0: (a) interoperability, as ensured by communication code standardization; (b) virtualization, in which cybernetic **systems** can control physical processes; (c) decentralization, in which every computer or technological device has autonomous decision-making capability even within centrally-controlled procedures; (d) real-time data collection and analysis capability; (e) client orientation, both external and internal to organizations; and (f) modularity, which enables flexible adaptation to changes through the substitution and/or expansion of individual modules» (Pencarelli, 2019).

The key aspect of Tourism 4.0 and I4.0 involves horizontal integration through networks to enhance internal collaboration. This is followed by integrating vertical subsystems

within the enterprise to establish adaptable offering systems. Ultimately, there is engineering integration across the entire value chain to customize the product for customers, encouraging collaborative value creation with customers (Pencarelli, 2019).

One example of this is Augmented Reality (from now on, AR), defined as a method that combines a real-time live view with computer-generated images, resulting in an augmented experience of reality (Mohanty, 2020). AR operates on three fundamental principles: integration of real and virtual elements, real-time interaction, and 3-D registration of both real and virtual objects. This technology can enhance the existing view, create an augmented perspective, or generate an entirely artificial scene.

Praised for its user-friendliness and innovation, AR is a cutting-edge tool for promoting and marketing tourism products and services. It facilitates improved tourist engagement, offers innovative ways to explore unfamiliar attractions, induces positive changes in tourist behaviour, enhances overall tourist experience, enables superior customization, boosts tourist/visitor influx, improves marketing strategies for tourist products, ensures business profitability, and enhances tourist products and services through continuous innovation (Mohanty, 2020).

AR has the potential to address the evolving landscape post-COVID-19. Firstly, the capabilities of AR and VR in offering a virtual representation of a location without actual physical presence can be discussed. In the aftermath of the pandemic, there is a growing emphasis on sustainable tourism practices, urging tourists to limit unnecessary movements due to their adverse effects, and AR and VR can play a crucial role in providing virtual experiences in lieu of physical travel. The application of AR has been notably prevalent in the marketing of tourism products and services, facilitating improved visualization and targeted information dissemination (Mohanty, 2020).

In the wake of the COVID-19 pandemic, there is a heightened necessity to raise awareness, reinforce branding, and instill customer confidence through focused and widespread marketing efforts.

Consequently, AR is poised to significantly influence tourism marketing and sustainability in the post-pandemic era. AR-based systems are anticipated to deliver sensory experiences without the need for physical participation or travel to specific locations. Particularly in the realm of Meetings, Incentives, Conferencing, and Exhibitions (MICE), which are integral components of tourism, the pandemic has underscored the dominance of ICT-

based platforms in organizing digital meetings. AR applications can emulate real-life experiences of MICE tourism, offering authenticity while simultaneously saving both time and resources (Mohanty, 2020).

2.3.3 The role of AI

Artificial Intelligence (from now on, AI) technology stands out as a groundbreaking innovation that has transformed various global industries.

It involves the creation of computer systems capable of executing tasks requiring human-like intelligence. The impact of AI extends beyond the Information Technology sector, reaching areas such as self-driving vehicles, robotic healthcare, navigation systems, chatbots, human-computer games, and more. Its influence has reached the tourism and hospitality sectors, where it is employed to gain a competitive edge in the dynamic market (Nagaraj *et al.*, 2022).

AI has integrated into the business landscape, enabling marketers to automate processes and streamline activities for enhanced competitiveness. While initially used to simplify marketing, AI has evolved to play a significant role in every aspect of tourism, including guest interactions, service provision, and attentiveness to customer needs. In the tourism industry, AI serves multiple purposes, including elevating personalization levels, tailoring customer recommendations, and ensuring prompt responses even in the absence of staff.

The presence of AI in the industrial context has become indispensable, facilitating customer assistance and communication to enhance engagement quality. AI excels in providing comprehensive information on key factors such as natural resources, general infrastructure, tourist facilities, and destination tourism infrastructure. In comparison to human performance, AI can deliver a vast amount of information swiftly, suggesting the potential to outperform traditional human services. This information can take various forms, including interactive messages, self-service technologies, chatbots, audio and virtual tours, interactive booking processes, facial recognition, language translations, cross-selling, up-selling, competitive pricing, and user-friendly shopping experiences.

Numerous emerging technologies have emerged within the realm of Artificial Intelligence, contributing to a fresh and innovative customer experience. Nagaraj *et al.* (2022) lists some advancements, described below.

Facial recognition

This AI application is gaining increasing significance and widespread adoption across diverse industries for various purposes. In the travel and tourism sector, Facial Recognition is being extensively incorporated. Travelers often undergo a series of intricate procedures, involving the scrutiny of travel documents by authorities such as customs, immigration, and airports. This procedural complexity consumes valuable time, leading to frustration among tourists. To address these challenges, Facial Recognition technologies have been introduced.

This technology identifies the faces of tourists, validates them against the images in their documents, and facilitates seamless and hassle-free check-ins, alleviating the disruptions caused by cumbersome processes.

Chatbots

It is a software tool designed to engage in conversations through auditory or textual means. There are primarily two types of chatbots: text message-based chatbots and voice-based chatbots. Text message-based chatbots respond to customer queries with text messages, while voice-based chatbots deliver responses in the form of voice messages.

A notable feature of chatbots is their ability to provide multiple responses to a single question promptly. Chatbots are accessible 24/7, every day of the year. Certain companies enhance the travel experience using unique travel chatbots. Travelers can independently explore destinations with a chatbot installed in their vehicles, providing continuous descriptions of each place.

In the hospitality industry, where delivering a great guest experience is crucial, chatbots play a vital role. Guests often seek information about hotel facilities, and chatbots facilitate personalized interactions. Personalization is a critical aspect that marketers should integrate into their services, with voice-based chatbots offering high-profile personalized services. These services encompass ordering food, booking cab services, reading messages aloud, scheduling tasks and appointments, setting alarms, handling room services, providing housekeeping services, and informing guests about hotel facilities, among other functionalities.

Robots

They represent another facet of AI technology that is solidifying its foothold in the tourism sector. These technologically-driven assistants leverage the Internet of Things (IoT) to perform routine tasks, such as activating bedroom lights, powering off televisions, automating luggage check-ins, and welcoming guests in hotels. The emergence of robot receptionists is a notable trend in the tourism industry, directly impacting customer and guest interactions. These robots extend their capabilities to manage aspects of room service, ensuring a seamless experience for guests in new hotel rooms. In airports, robots are increasingly being deployed as guides and assistants.

The integration of robots in the tourism industry brings several advantages, including the augmentation of customer experience, streamlining of work processes, enabling human staff to focus on other activities, and enhancing the overall efficiency of tourism businesses.

Language translators

Several software applications are available to translate languages, proving particularly beneficial for travelers navigating foreign destinations with unfamiliar languages. Overcoming language barriers can be challenging when visiting a foreign country, traditionally requiring the assistance of a local guide fluent in the native language. However, software applications now offer an alternative, acting as language translators. Notably, Google Translate offers audio speech services through its “Conversation mode.” When travelers speak in their language, this feature captures their voice message, translates it into the target language (local language), and verbally communicates the translation to the local people.

This functionality is especially advantageous for illiterate travelers who may struggle to type messages into translation apps. An added benefit of Google Translate is its offline mode, enabling users to download languages and use the application without an internet connection. Another valuable feature is the “Camera Integration” option. Travelers often face challenges understanding menus in foreign hotels due to language barriers. The Camera Integration option uses the phone’s camera to scan and translate signboards and menus into the preferred language, facilitating comprehension for travelers. Additionally, this application can translate words or messages captured in images, aiding travelers who want

to capture information for later translation. By facilitating communication with local people, the application enhances the overall travel experience. Travelers can confidently explore local canteens, shopping malls, and recreational zones, engaging with locals in their language. From a marketer's perspective, this technology contributes to improved customer experience and engagement for travelers exploring unfamiliar places.

2.3.4 What impact?

Digital transformation and its implications, such as artificial intelligence and robotics, will also result in job shifts from human to nonhuman employees (for example, replacing housekeepers with robot attendants), transforming tourism labor-intensive industry to a technology-intensive industry. Some businesses may be hesitant to embrace digitalization due to a lack of skilled employees. To keep up with new technological advancements, new job types may emerge in the future, and the demand for highly skilled employees is likely to rise (Alrawadieh, 2021).

The impact of these digital innovations can be seen in firms' operational models as well as their customer relationships. Traditional hospitality business operations, for example, have been disrupted also by innovative tools such as the growing dominance of online distribution channels (e.g., online travel agencies (OTAs)), peer-to-peer platforms (e.g., Airbnb), and the unprecedented spread of smartphones and apps (Alrawadieh, 2021).

New technologies are becoming increasingly crucial, for example, for the effective implementation of revenue management (from now on, RM) (Alrawadieh, 2021). RM was developed in airline companies to forecast demand and set prices. It has since spread to most hospitality industry sectors, including hotels, restaurants, spas, and banquet services. The key principle of RM is to ensure that the suitable inventory unit is matched to the right customer at the right time and the right price. Thus, the objectives of RM are increasing profits and decreasing costs.

The use of technology in RM key operations has become a requirement. Hotels that use specialized software in their decisions have a competitive advantage over those that do not. Big Data management assists hotel RM managers in improving their properties' financial performance and is regarded as a key driver for successful RM, and it happens through the use of specialized software to process large databases. It is also acknowledged that RM software plays a role in implementing appropriate pricing strategies, measuring

performance indicators, and selecting appropriate policies when dealing with issues such as overstaying, late checkout, and overbooking (Alrawadieh, 2021).

2.4. Metaverse in the tourism industry

The metaverse represents a shared, enduring, and interactive alternate reality formed by amalgamating all virtual realms into a cohesive universe that individuals can effortlessly navigate. Through the use of digital avatars, people can immerse themselves in this virtual world through various modalities such as augmented reality (from now on, AR), virtual reality (from now on, VR), and mixed reality (from now on, XR) (Gursoy, 2022).

Essentially, the metaverse serves as a parallel reality for work, recreation, and communication, distinct from today's internet. It surpasses the current internet and enables users to exist within it.

The shared challenges of COVID-19 lockdowns and social distancing have fueled an increased interest in envisioning an alternative reality. The metaverse offers a realm where individuals can explore boundlessly, free from constraints, making any conceivable experience both possible and accessible. Growing awareness of climate change, shifts in customer preferences, changing generational values, and other external factors are likely to encourage individuals to support sustainable practices in hospitality businesses and opt for domestic travel over international destinations.

This evolving mindset among customers may even lead them to explore hospitality and tourism experiences, such as attending meetings, concerts, or visiting museums, in the metaverse. These potential shifts in consumer behavior underscore the significance of the industry's endeavors to create and provide authentic hospitality and tourism experiences within the metaverse. This becomes particularly crucial as technology advances and user adoption of metaverse technologies increases (Gursoy, 2022).

Hospitality and tourism enterprises face the imperative of crafting immersive experiences that individuals perceive as valuable and are willing to pay for. To achieve this, industry players must demonstrate creativity and innovation in developing distinctive and immersive experiences that engage customers' multiple senses. In low interactive experiences, customers passively engage with virtual products and services, such as conducting activities that don't demand active participation or seeking information passively. On the other

hand, highly interactive experiences necessitate customers' active participation in a live virtual environment, like kayaking or playing first-person shooter games. A second dimension of metaverse experiences denotes the type of motive (hedonic vs. utilitarian) fulfilled for consumers. Individuals driven by hedonic motives engage in virtual experiences for enjoyment and pleasure, while those with utilitarian motives seek to meet functional or utilitarian needs in the virtual world. Customers can find hedonic pleasures in the metaverse by virtually exploring the Amazon rainforest or scuba diving in the Pacific Ocean. Conversely, the metaverse can cater to customers' utilitarian needs, allowing them to virtually experience flights, hotel rooms, cooking at restaurants, tours, conferences, meetings, and conventions (Gursoy, 2022).

These efforts provide customers with a "try before you buy" feature, enabling them to explore hotel and restaurant interiors, tourist attractions, flights, and other services of interest from the comfort of their homes. As customers virtually experience services before making decisions, metaverse experiences can influence the outcome of bookings. While the metaverse doesn't replace real-world hospitality and tourism experiences entirely, it presents significant opportunities for service providers and customers alike.

The metaverse not only offers businesses crucial marketing and customer relationship opportunities but also saves customers time and money in trip planning. Although virtual experiences are unlikely to replace real-world experiences entirely, the outlook is optimistic. The emergence of the metaverse is poised to bring about substantial transformations in the behaviors and attitudes of both customers and businesses. These shifts have the potential to influence customer focus on products and services, purchasing patterns, perceived value and value propositions, preferences, consumption habits, and decision-making processes (Gursoy, 2022).

The hospitality and tourism sector stands to gain considerable advantages from research endeavors that closely monitor and analyze these attitudinal and behavioral changes. Research in this realm should explore the impact of the time customers invest in the metaverse, examining how it shapes their perceptions of value, preferences for avatars, and choices of activities within virtual worlds. Understanding these dynamics will enable the industry to adapt and capitalize on the evolving landscape, ensuring that businesses can align their offerings with the changing needs and expectations of metaverse-engaged

customers. In contrast to digital marketing, where customers typically visit booking websites, hotel platforms, or other online hospitality and tourism-related platforms, marketers in the metaverse will need to immerse themselves in the user's metaverse. Consequently, marketers must devise innovative approaches to effectively engage with their customers within the metaverse. Urgent research is needed to explore metaverse-specific marketing strategies, including content creation, influencer engagement, search optimization, and other tailored methods.

It is imperative for players in the hospitality and tourism industry not only to acknowledge this emerging phenomenon but also to develop strategies for active participation in this new virtual realm. Doing so will allow them to capitalize on the opportunity presented by the metaverse, ultimately building a sustainable competitive advantage in this evolving landscape (Gursoy, 2022).

2.5. Conclusion

In this chapter, I exposed the way digitalization entered the tourism industry. New technologies belonging to Industry 4.0 are boosting digital transformation in every sector.

The main driver is the seek for efficiency, cost reduction, and higher profits given by a competitive advantage derived by the innovation brought by these new technologies. This is true also for the tourism industry, however, in this case, COVID-19 played a central role. The unexpected pandemic and lockdowns forced the entire sector to find new ways to guarantee its services, and the adoption of new technologies allowed, on the one hand, to provide new forms of tourism, on the other hand, the formation of new trends among the customers. In the next chapter, I will focus on the sustainability evolution of the touristic sector. After introducing the topic, I will define the different applications of the sustainability approach in the tourism industry.

SUSTAINABILITY IN THE TOURISM INDUSTRY

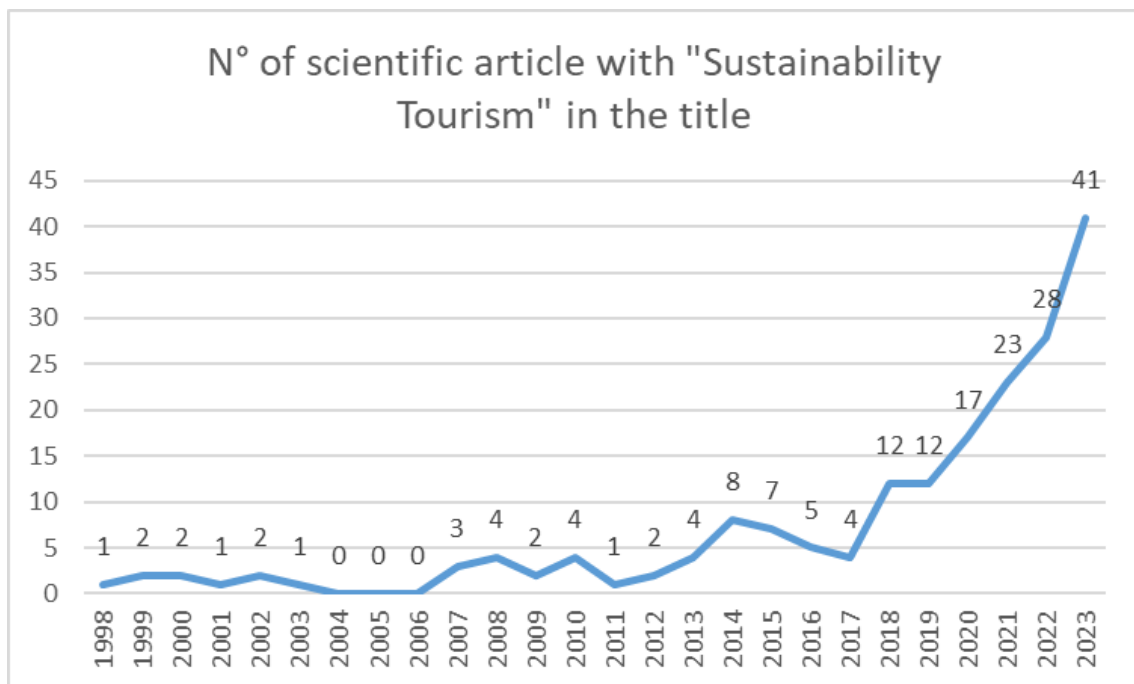
3.1. Introduction

In order to understand the novelty and the importance of the sustainability topic nowadays, I reported the distribution of scientific articles available on Google Scholar, with sustainable tourism as the main argument, published up to 2023 (figure 9). We can observe an exponential increase of interest in the topic from 2018, which is an effect of the many policies carried out, particularly the publication in 2015 of the “2030 Agenda for Sustainable Development” from the United Nations. Covid-19 pandemic also put the spotlight on this topic and boosted the application of new technologies in many industries and aspects of our life, and tourism sector is among them. Furthermore, United Nations World Tourism Organization (from now on, UNWTO) declared 2017 as the Year of Sustainable Tourism, encouraging global participation in travel while adhering to the principles of sustainable tourism and emphasizing engagement with local communities (UNWTO, 2017). In the ongoing fight against Covid-19, prominent measures involve restrictions on gatherings and the adoption of social distancing practices.

This underscores the high vulnerability of the tourism industry to substantial upheavals like the current pandemic. In this context, Sustainable Tourism appears to have a promising opportunity for advancement (Palacios-Florencio, 2021). Numerous scholars have recognized significant challenges for sustainable tourism arising from the rapid expansion

of tourism services. The ongoing sustainable development of tourism is a dynamic endeavor continually confronted by new challenges arising from evolving technologies and shifts in tourism consumption patterns. Given its substantial economic, environmental, and social implications in the contemporary world, the growth of the tourism sector is intricately connected to all three mentioned dimensions of sustainability (Streimikiene, 2020).

Figure 9 Scientific articles with Sustainability Tourism in the title



Source: Google Scholar

The chapter is organized as follows: initially, I will analyze the various nuances given to the word sustainability, from which different perspectives can emerge on how the theme can be approached. After that, I will focus on the forms that the concept of sustainability can take. Subsequently, I will introduce the subject related to the tourism sector, discussing environmental, economic, and social sustainability. This introduction will be necessary to then address the topics of sustainable development and the challenges that this process entails. Finally, I will concentrate on the factors that guide and fuel sustainable development in the tourism sector.

3.2. What sustainability is

Despite the novelty of sustainable tourism, the concept of sustainable development dates back to the early 1970s, when scientists started to search for an alternative development model to the Western one (Ruggerio, 2021). The discourse initiated during those years gave rise to the concept of eco-development, an approach aiming to reconcile social development with the imperative of preserving ecosystems to maintain the habitability of the planet. While the concept of eco-development did not take center stage in international policy, it paved the way for a novel perspective that interlinked development with sustainability. In 1987, the report "Our Common Future" by the World Commission on Environment and Development defined sustainable development as "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This statement was widely embraced by the international community as the new paradigm for development (Ruggerio, 2021).

Researchers often grapple with the challenges posed by the ambiguity and multiple meanings associated with the concept of sustainability. The presence of non-operational, varied, and occasionally conflicting definitions complicates the selection of an appropriate understanding of sustainability (Salas-Zapata, 2019).

The connection between the terms sustainable development and economic growth has sparked a debate over their conflicting interpretations. Some argue that development, equated with economic growth, is incompatible with sustainability due to the impossibility of sustaining infinite growth on a finite planet. Conversely, others emphasize the significance of economic growth in acquiring the necessary resources for achieving sustainability. Beyond these contradictions and diverse interpretations, there is some agreement on the implications of sustainable development. The ensuing discussion introduces alternatives to surpass the outdated development paradigm. On one hand, the recognition of the complexity of real systems has become established, viewing a system as a set of interrelated elements generating emergent properties. This perspective embraces a multidimensional conceptualization, often considering social, political-institutional, economic, and ecological dimensions as interconnected parts of a whole. On the other hand, the pursuit of inter- and intragenerational equity underscores the importance of expanding spatial and temporal horizons (Ruggerio, 2021).

Salas-Zapata *et al.* (2019) considered the meanings of the concept sustainability, on the basis of the use of the term. In this way it was possible the identification of four clearly distinguishable meanings that are not mutually exclusive, since the concept of sustainability belongs at the same time to different conceptual fields.

Sustainability as a set of guiding criteria for human action

Sustainability as a set of guiding criteria for human action. Scholars and researchers frequently use the term sustainability to denote the incorporation of a set of social and environmental criteria or attributes into human activities. These activities may pertain to products or processes that, in either case, involve some form of interaction between humans and ecosystems. Consequently, these actions can be considered integral to social-ecological systems. From this standpoint, sustainability is interpreted as the integration or application of social-ecological criteria or attributes during the planning, designing, and/or operational phases of specific reference systems. Such statements are characterized by their reference to a criterion of social and/or ecological action that researchers utilize to define a system as sustainable.

Sustainability as a goal of humankind

Sustainability as a goal of humankind. The term sustainability is also utilized to describe a societal objective. Scholars, researchers, and professionals often assert that a system is sustainable based on its alignment with specific objectives. In such cases, a common feature is the acknowledgment of environmental, social, and economic purposes, goals, values, or objectives that certain human actions aim to achieve. From this perspective, sustainability becomes an idealization of the relationship between nature and society within specific reference systems. The essence of sustainability is disclosed through the mention of these purposes or goals in such statements. The concepts and human actions associated with sustainability directly stem from these purposes, goals, or societal expectations. Therefore, when the term sustainability is used interchangeably with sustainable development, the researcher is referring to an expectation or the intended outcome of a reference system known as a model of development.

Sustainability as an object

Sustainability as an object. Sustainability, treated as an object, is a tangible entity that can be identified, represented, studied, or influenced. It involves interpreting the term as the conduct of a reference system. The descriptors used to articulate this conduct include resilience, adaptive capacity, robustness, balance, equilibrium, ability, or capacity to withstand disturbance, and the preservation of social-ecological systems. While these terms may not be interchangeable, each of them points to the system's ability to sustain specific attributes, resources, processes, or functions over the long term despite disruptions.

Sustainability as an approach of study

Sustainability as an approach of study. The term sustainability is also used to describe the examination of social, economic, and environmental variables within a reference system. In this context, a discernible pattern emerges, marked by the analysis of the social-ecological variables associated with a specific activity, product, or human process as a reference system. Consequently, it can be deduced that the term sustainability is utilized to signify researchers' intent to address variables aimed at evaluating the environmental, social, and ecological performance of a reference system. From this viewpoint, sustainability can be comprehended as an approach employed to study particular systems.

3.3. Two forms of Sustainability

Ruggerio (2021) approaches the definition of sustainability by referring to social-economical systems (from now on, SESs), including society as drivers of the changes on these systems. According to him, the trajectory of SESs determines whether they move towards sustainability scenarios, contingent upon three key attributes: resilience, adaptability, and transformability. Given that all living systems undergo change, the critical objective is not to eliminate these changes but to prevent the destruction of sources of renewal. These sources enable the system to recover from the inevitable stresses and perturbations resulting from its inherent nature as an open system. As sustainability is a conceptual framework intended for application to tangible systems with a material existence,

the presumption is that these systems are open, engaging in the exchange of matter, energy, and information with their surroundings. Such exchanges can be represented as input (inputs) and output (products) variables.

Ruggerio (2021), defines the sustainability of a system as a dynamic equilibrium in the interaction process between a population and the carrying capacity of its environment. This equilibrium allows the population to develop and express its full potential without causing irreversible adverse effects on the environment's carrying capacity upon which it relies. The author establishes five principles organized into three primary domains to ascertain whether a system is sustainable: the Material Domain, forming the foundation for regulating the flow of materials and energy that underlie existence; the Economic Domain, offering a guiding framework for defining, creating, and managing wealth; and the Domain of Life, serving as the basis for appropriate behavior within the biosphere concerning all other species.

The preceding section delved into the concept of sustainability, exploring its abstract meaning. The discussion has navigated between two contrasting perspectives: the very strong and the very weak sustainability approaches. Advocates of the very strong sustainability approach place nature as the central subject of sustainability, prioritizing the conservation of its attributes in the most pristine state possible. Conversely, adherents to the very weak sustainability approach shift the focus towards sustaining economic systems, relegating nature to the role of a supplier of natural resources, ecosystem services, and the reservoir for the residues generated by human activity.

Weak sustainability

Weak sustainability. The neoclassical theory of economics operates under the assumption that energy and matter (commodities) circulate within a nearly closed system characterized by unlimited resources (inputs) and an infinite capacity for processing wastes (outputs), termed negative externalities by economists (see Fig. 7). Despite the finite nature of resources, this theory perceives nature as an inexhaustible reservoir for production resources and assumes a similar resilience in nature's capacity to assimilate contaminants. Over the past decades, the neoclassical paradigm has developed methodologies enabling the internalization of externalities. Environmental Economy methods involve the monetization of environmental commodities and services, assigning them monetary values.

This approach allows businesses and consumers to buy and sell these resources, relying on the laws of supply and demand and progress (scientific, technological, and economic) to work towards global equilibrium. It also anticipates the discovery of synthetic substitutes for natural resources (artificial capital), conservation strategies for irreplaceable natural resources, and economic resources for remediating environmental damage. Within this framework, weak sustainability assumes that the economic system is the primary subject, with its main goal being sustained economic growth, often referred to as sustainable development. Two recent conceptual proposals stemming from the weak sustainability approach are the circular economy and green economy. Both share a common lack of scrutiny regarding the notions of development and economic growth, aligning with the principles of sustainable development and asserting that environmental challenges can be resolved through technological and scientific advancements.

Strong sustainability

Strong sustainability. The term "sustainability" is predominantly associated with ecological sustainability, although certain studies on sustainable development introduce terms such as 'social sustainability,' 'economic sustainability,' and 'project sustainability.' In contrast to the neoclassical theory, ecology does not conceive human economy in isolation from nature; instead, it views the human economy as part of a (SES) that exchanges matter, energy, and information with its environment. In this perspective, the components of the SES are more than mere commodities and services traded in markets. This ecological viewpoint does not imply adopting a conservationist stance towards nature that prioritizes human societies (very strong sustainability). Instead, it acknowledges that the persistence of SESs depends on reversing the increasing tendency to deteriorate Earth's environments. This interpretation aligns with emerging ideologies such as degrowth and "buen vivir" (also known as "vivir bien" in Spanish, meaning "living well"). In contrast to proposals focused on weak sustainability, the concept of sustainable development is not a prerequisite for degrowth. Originating from South American native cultures, particularly Andean cultures, buen vivir substantially challenges the notions of development and sustainable development. It critiques Western culture based on a cosmovision that contrasts anthropocentrism with a perspective centered on respect for Mother Earth and all living beings.

The *buen vivir* approach prioritizes the commonwealth over individual well-being, extending beyond the traditional notion of commonwealth confined to human beings. It includes all existence, preserving equilibrium and harmony among every living being. *Vivir bien* surpasses mere satisfaction of needs, access to services, and the accumulation of commodities as the basis for well-being. It is presumed that the primary challenge faced by this proposal is resisting and overcoming the hegemonic structure imposed by sustainable development, analogous to the resistance witnessed during the 1970s with *ecodevelopment* (Ruggerio, 2021).

3.4. Sustainability and Tourism

The UNWTO introduced the concept of Sustainable Tourism in 2005, describing it as a type of tourism whose practices and principles apply to all forms of tourism in a variety of destinations, including mass tourism and niche segments. The principles of sustainability address the environmental, economic, and socio-cultural dimensions of tourism development, emphasizing the importance of striking a suitable balance between these three aspects to ensure long-term sustainability (UNWTO, 2005).

This type of tourism promotes destinations that are not only environmentally sustainable, but also beneficial to overall well-being. As a result, many primary tourist destinations' current challenges may need to be addressed quickly or transitioned to a sustainable mass tourism model. This transition entails combining the emerging societal norm of sustainability with the long-standing norm of encouraging growth (Palacios-Florencio, 2021). Sustainable tourism encourages responsible resource management, meeting environmental, social, and economic needs while preserving cultural integrity, fostering biological diversity, maintaining ecological processes, promoting social and economic equity, and contributing to overall enrichment (Elmo GC, 2020). Sustainable development and tourism innovation have a strong correlation. Tourism businesses use innovative strategies to promote a more sustainable environment. Companies now require the ability to innovate, whether through incremental or radical changes (Elmo GC, 2020). Since its inception, Sustainable Tourism has been centered on environmental preservation, cultural authenticity, and ensuring the democratic profitability of tourist activities in destinations. This type of tourism recognizes the critical importance of social impact as a measure of well-

being reflected in the visited destination. Furthermore, it focuses on exclusive economic returns, assessing whether tourist activity generates adequate income for the local population in terms of employment, wealth, and available resources (Palacios-Florencio, 2021).

3.4.1 Multidimensional Approach to Sustainable Development

We identify as key components of sustainable development three dimensions: economic, environmental, and social. These dimensions empower companies to enhance productivity while concurrently reducing resource usage, minimizing environmental impact, and placing significant emphasis on innovation to actualize sustainable development. The notion of sustainable development in tourism is regarded as an innovative approach that supports not only economic growth but also ensures environmental protection simultaneously. (Elmo GC, 2020). The economic benefits derived from tourism development typically manifest as employment opportunities, income generated by the tourism sector, and the creation of investment and business prospects. Concerning the social impact of tourism, it can be characterized by changes in the lives of residents in communities forming part of the destination and linked to tourism activity. Similarly, the social and cultural advantages result in an expansion of leisure activities, enhancements in public services and infrastructure, and a catalyzing effect on social change (Palacios-Florencio, 2021).

Similarly, in the environmental domain, tourism can act as a catalyst for the conservation of natural resources and cohesive urban designs. This approach promotes organized tourist development based on a model that integrates seamlessly with the environment. Encouragement of pro-environmental behavior, defined as actions aimed at protecting the environment, is critical, especially when it comes to nature-based tourism and ecotourism among tourists. While acknowledging the composite nature of environmental quality, which includes both objective and subjective elements, it is widely accepted that establishing a strong link between environmental protection, logistical considerations, and infrastructure development is critical for a successful strategy in sustainable tourism development (Palacios-Florencio, 2021).

There is a lack of consensus regarding the specific conditions that define a state of sustainability, given its continuous and future-oriented nature. To the best of our knowledge,

three distinct definitions have been proposed by both public organizations and researchers. According to the United Nations World Tourism Organization (UNWTO; 2004), economic sustainability encompasses the long-term viability of economic operations, fairness and equity in benefits distribution, employment and income-earning opportunities, and poverty alleviation. The definition presented by the United Nations Environmental Programme (UNEP) and UNWTO (2005) focuses on economic prosperity across various societal levels, emphasizing cost-effectiveness, economic efficiency, and the vitality of tourism enterprises. Researchers instead, state that economic sustainability involves a process "optimizing the development growth rate at a manageable level with full consideration of the limits of the destination environment." It is evident that economic sustainability in tourism, as per these interpretations, is a multidimensional construct with a comprehensive significance (Zhang *et al.*, 2018).

3.4.2 Challenges and Strategies in Sustainable Tourism Development

Tourism appears to serve as a potent catalyst for economic growth and substantial welfare improvements. Especially in the context of developing countries and indigenous communities, tourism is seen as an alternative means for alleviating poverty and promoting sustainable livelihoods (Zhang *et al.*, 2018). This form of tourism emphasizes the significance of stakeholders, acknowledging the pivotal role played by residents (Palacios-Florencio, 2021). However, it is crucial not to perceive tourism as a cure-all or the easiest solution to economic challenges, as it may also yield static and adverse effects. For instance, given the seasonal character, tourism is identified as an unreliable source of income due to its sensitivity to actual or perceived changes in the environmental and social conditions of destinations. The risks of overdevelopment, excessive visitor use, and the pursuit of short-term economic gains can threaten the long-term viability of many tourism destinations (Zhang *et al.*, 2018). Examining the perspective of tourists themselves is equally intriguing. Understanding the attitudes of tourists towards the advancement of Sustainable Tourism and fostering awareness of culture, environment, and the economy in the communities they visit are crucial factors for safeguarding tourist destinations and mitigating negative impacts (Palacios-Florencio, 2021).

Sustainable tourism extends beyond mere nature preservation or socially responsible business practices. It is crucial to emphasize that the theoretical framework of sustainable

tourism encompasses economic, social, and environmental protection dimensions. In this context, it becomes apparent that social involvement is an aspect receiving less attention. Therefore, addressing the primary competitiveness challenges in tourism involves achieving the social and environmental goals of sustainable tourism development. This can be accomplished by innovating in sustainable consumption practices within tourism services, attracting environmentally conscious consumers, and educating such consumers through the provision of green or environmentally friendly tourism services (Streimikiene, 2020). It is widely acknowledged that Sustainable tourism addresses the challenge of combating overcrowding in specific tourist destinations while also attempting to mitigate the associated damages. Sustainable tourism has long sought to position itself as a solution to the negative aspects of tourism development and the criticism it frequently receives. In the current context, this perception is more important than ever. The massive influx of tourists in certain destinations, as well as the resulting damage to urban and natural environments, are among the most vehemently criticized aspects of tourism. In this regard, Sustainable Tourism advocates, among other measures, the promotion and development of less crowded tourist destinations, with Sustainable Mass tourism as the desired and imminent outcome for most destinations. (Palacios-Florencio, 2021).

Within the context of tourism, the literature underscores the imperative to sustain competitiveness while simultaneously adjusting to the ever-evolving environment. Moreover, within the tourism industry, the primary focus centers on sustainable development. Companies operating in this sector must consider not only economic gains but also the social and environmental impacts inherent in the development of their activities (Elmo GC, 2020).

3.5. Engine of sustainability transformation in the tourism sector

Tourism is rapidly expanding, attracting tourists from various nationalities and cultures. This has led to increased interest in cultural differences, local traditions, and habits. Tourism service providers should understand intercultural differences and tourist behavior when creating service packages and forming groups (Streimikiene, 2021). This will help meet consumer expectations and create a more positive environment for both group and individual services. As a result, consumers and organizations benefit from increased

added value. It is also interesting to examine tourists' perspectives. To protect tourist destinations and minimize negative impacts, it is important to understand tourists' attitudes towards sustainable tourism and raise cultural, environmental, and economic awareness in the communities they visit (Palacios-Florencio, 2021). Most studies show a positive correlation between attitudes towards sustainable tourism development and perceived positive impacts. Providing high-quality and environmentally friendly services is crucial for the success of any tourist destination (Palacios-Florencio, 2021).

3.5.1 Unveiling Tourist Motivations: the Landscape of Sustainable Tourism and Consumer Behavior

Sustainable tourism has a significant focus on sustainable consumption. Consumer behavior during holidays strongly correlates with their daily consumption habits. Society generally adheres to sustainable consumption principles in daily activities, and this is expected to continue during holidays. Notwithstanding, sustainable tourism service packages offered by Destination Marketing Organizations (DMOs) are rarely chosen by tourists who prioritize responsible consumption (Streimikiene, 2021). Some organizations, eager to attract more tourists, present themselves as more sustainable than they actually are. Today's tourism service consumers are sophisticated, which can lead to ambiguity and distrust in organizations. Researchers found that trust in an organization has a direct impact on tourists' intentions to order specific services. Hotel advertising that provides clear and useful information, reflects sustainability, and avoids overemphasis can increase trust among tourists. This is a very significant highlight, talking about a tourism service consumer and analyzing his/her decision motives to purchase service (Streimikiene, 2021). Palacios-Florencio *et al.* (2021), states that the motivation to visit a destination will be increased if the tourist is aware of the positive effects that sustainable tourism can have on the area. Tourism motivation inspires people to travel and explore new places. The incentive to travel can be defined as an internal need, that motivates a person to act in a specific way in order to achieve his desired satisfaction. Motivation, along with services and loyalty to a destination, play a crucial role in increasing satisfaction. Furthermore, motivation to travel represents a key factor in predicting tourist behavior and understanding their intentions (Palacios-Florencio, 2021). Understanding tourists' motivations is crucial for understanding their behavior trends, in addition to their satisfaction. It

is a two-phase process in which internal and external factors combine. In this sense, internal factors refer to the desire to make the trip. includes psychological factors like disconnection and relaxation. External factors, such as cultural and unique features, contribute to the choice of destination. Sustainable tourism development positively impacts tourist motivation, as it demonstrates a commitment to environmental care and conservation. Researchers apply these constructs to ecotourism to confirm that tourists with higher environmental sensitivity are more motivated and likely to return. Tourists' motivations and intentions are directly linked to their environmental knowledge and concerns (Palacios-Florencio, 2021). Targeting the right visitors is crucial for sustainable tourism. Understanding the factors that influence positive intentions towards a destination is crucial for tourism. Respect for the environment is a positive psychological factor that influences tourists' choice of sustainable destinations (Palacios-Florencio, 2021). People who exhibit positive attitudes toward the environment while traveling can convey a greater desire for sustainable tourism experiences with nature. Pro-environmental behavior in large urban tourism destinations is influenced by various factors, including individual background, habits, attitudes, and external context (Palacios-Florencio, 2021).

3.5.2 Financial Support, Sustainable Tourism, and Local Perspectives in Business Development

When it comes to financial support for businesses, it's easy to imagine a businessperson investing in the tourism industry. If they have established a new hotel, they can provide additional work, such as at a local laundry. As an example, newly established businesses add significant value to other enterprises by providing additional services or products. Therefore, financial support for businesses should be acknowledged (Streimikiene, 2021). To ensure efficient resource allocation, state interventions in markets should address market failures such as pollution, public goods, and internalization of costs associated with business operations. State support for sustainable tourism should be linked to innovation, renewable energy use, social inclusion for disabled individuals, job creation, and other public benefits that improve the quality of life for locals (Streimikiene, 2021).

Residents' reactions to tourism development varied depending on a variety of factors, including the level of tourism development, sociodemographic characteristics, economic reliance on tourism, the extent of local residents' interaction with tourists, and spatial

proximity to tourist attractions. Social exchange theory, which considers the benefits and negative aspects of tourism, is often used to explain how people make decisions about it. Residents are likely to support tourism development if the perceived benefits outweigh the perceived costs. Stakeholder theory, which is based on the concept of fairness, has also been used to resolve conflicts and trade-offs between various stakeholders. Prioritizing the legitimate interests of all stakeholders is crucial when developing policies and making decisions (Zhang *et al.*, 2018). The study chose three economic indicators: long-term business profitability, continued growth of the city's tourism industry, and sustained and increased funding for tourism marketing. Seasonal tourism operations, which have resulted in lower occupancy rates, transportation difficulties, and higher prices, were viewed as a major factor in the sustainability of tourism corporations. Quality accommodation and a skilled workforce are key factors affecting the economic sustainability of tourism destinations. Considering the temporal dynamics of tourism development, the trade-off between tourism investments and environmental preservation is critical to ensuring the long-term sustainability of population incomes (Zhang *et al.*, 2018).

3.6. Conclusion

In this chapter, I introduced the sustainability transformation and its novelty as a topic. Since the publication in 2015 of the “2030 Agenda for Sustainable Development” by the United Nations and the declaration of 2017 as the Year of Sustainable Tourism by UNWTO, sustainability topic related to tourism has gained more and more interest. Being a new subject, researchers have committed in giving a meaning and a definition to the word “sustainability”, and I tried in the second paragraph to synthesize these efforts. COVID-19 and digitalization boosted the sustainability transformation. Tourism sector is evolving together with new trends of new generations which serve as drivers for the sustainability revolution in environmental, social and economic dimensions, with the participation of the wide variety of stakeholders.

In the next chapter I will discuss the example of The Foscarini Hotel. Located in an ancient villa in Mogliano Veneto, it is a perfect example of integrating the history and tourist vocation of the area, and new technologies. The result is a sustainable business model driven by digital and the enhancement of experience.

THE FOSCARINI CASE HISTORY

4.1. Introduction

Digitalization and sustainable transformation are clearly the keys we have now to reach any goal, and face any challenge, in the future of the tourism sector. Any organisation that wants to implement sustainability within its business must undertake a process of organisational change that accommodates all the new principles, values and activities necessary to achieve this goal. As mentioned in the previous chapters, this process may be triggered by external factors, like the COVID-19 pandemic or new generational trends that push companies to innovate themselves.

It is up to organisations to grasp these factors and address them in the most correct and effective way. In this chapter, I bring a helpful case study, the 4-star hotel *The Foscarini*, a great example of how digitisation and sustainability can become determining factors when applied to a hotel business.

The following paragraphs are the results of a visit to the property guided by the owner Patrizio Bof.

4.2. The Foscarini: an overview

The Foscarini hotel is located in an ancient Venetian villa from the 17th century. It belonged to the Foscarini family, which had several properties around the Veneto region and beyond. The hotel management is based on a business model born during the COVID-

19 pandemic when the need to innovate and find new models that integrated new technologies with the demands brought by the pandemic led to the creation of The Foscarini. Previously, another hotel was present in the same structure, but nothing was retained from that past management: the name, the type of management, and the market positioning have all changed.

The historical aspect represents a determining factor of the facility. There are three main buildings, two of which are historic and the third existing but made consistent with the whole structure. In between, a green Italianate garden acts as a courtyard between the three buildings where the thirty-one rooms are distributed. Everything here results from studies that aim to integrate innovation, comfort and historical heritage; the interior design is centred on the concept of the traveller with the use of selected materials, such as briccola wood, typical of the Venetian lagoon. In addition to the rooms and common rooms, there is a wellness area in which guests can exercise with high-quality equipment, relax with a massage, or simply unwind after a bike ride. Staff are young, some with second experience in the field, others with international experience. Compared to more experienced ones using traditional methods, these are accustomed to new technologies and closer to new trends. Their presence around is limited to allow the customers to experience villa Foscarini more authentically. Nevertheless, an ambassador is always available simply by calling him from your smartphone or the intercoms you can find in the common rooms. There is not a dedicated bar for the breakfast, however the hotel proposes the “*Buondi The Foscarini*” provided by Anna and Mario, a vending and a coffee machine. All the products are high quality homemade, and the guests can easily serve themselves autonomously. This novelty is also an outgrowth of covid. People have less and less need for direct contact with people, so breakfast, as well as the reception, are designed to be as quick a transition as possible. Everywhere there is great attention to detail: from the automatic doors that open only if they recognise you approaching the entrance to the study behind the choice of scents and music that change depending on the area or time of day, going through the tuning of TV channels that changes according to where the guest comes from.

4.3. The Foscarini & Digital Transformation

The concept of enjoying the experience authentically and autonomously is pursued from the beginning of the customer journey.

Guests decide at the time of booking which room they prefer, depending on the comfort and size of the room. They also indicate the reason for booking, outlining the profile of the type of customer: business, leisure or bike. Once they finalise the booking, they are invited to download the app to manage their experience at The Foscarini. Once they arrive, they are wifi-pushed and connected to the facility, and according to the targeted profile, the app suggests activities and in-room services you may need, as well as adjusting the temperature and lights in the room.

To make the customer feel home, introducing him to the local environment is essential. The Foscarini proposes, through the app and the television in bedrooms, activities nearby and the way you can reach them, perhaps using public transportation, which is only a few minutes walk away. Indeed, a decisive advantage is the location. The facility is located in the center of Mogliano Veneto, close to the train station and the center of the 9 UNESCO heritage sites in the Veneto region. Likewise, in the fitness room, there are screens available to show how to use the equipment and assisting the customers during the workout. By taking advantage of the tool most appropriate for us, the smartphone, The Foscarini created a layer that interfaces with the various technological tools, the home automation system, and the PMS (property management system), where records are managed. Everything that needed constant assistance from a person was eliminated. Through the app, one can interact with the ambassador at any time for assistance. The reception desk is kept to a minimum to avoid the idea of entering a hotel and getting closer to the concept of a home. This is definitely an aspect inherited from the COVID-19 period. There has been significant investment in the technology infrastructure and cloud systems part. The fibre connection allows the user to work anywhere with high performance, and the many touch points, from TVs to intercoms in common areas, with coordinated information between them, allow for high usability, which is one of the critical points for this type of

experience. A model like this would need several professionals in digital, marketing and social, and in hospitality management. The Foscarini try to blend these activities into a few figures in order to be more flexible in a rapidly evolving world. All the digital part is followed directly by facility management and is followed through the hub and spoke model. In this way, The Foscarini can service them and third parties, creating an interconnected network rotating around it.

4.4. The Foscarini & Sustainability

The sustainability model is crucial. The targeted customer of The Foscarini is the one who prefers a sustainable hotel rather than one that is not, avoiding everything that can result in greenwashing and proposing a realistic model. The photovoltaic system produces 70kw of electricity and is capable of storing 35kw. A generator is also set to make up for the case when the power goes down. Water is free, everyone can fill their own water bottles, and the hotel will provide one in case you have none. The facility also supports sustainable waste management, providing all rooms with recycling bins, eliminating all single-use plastic and using much more sustainable substitutes. For example, in every bedroom, you find compostable hangers in the closets, and instead of disposable soaps and shampoos, dispensers are refilled whenever needed. A great example of how energy consumption management and comfort of the guests can be integrated, is the automatic lights in the bathrooms that turn on every day after the natural light has gone down. This allows, on the one hand, to save energy and, on the other hand, to bypass the annoying part for a new guest to learn the disposition of the light switch. Depending on seasonality, the average length of a night stay ranges from 1,5 to 2,5 per guest, so it is important to make the usability of the rooms, as with all other facilities, truly immediate in understanding.

The Foscarini has targeted customers by profiling them into three segments: leisure, business and bike. Together they manage to cover the seasonal variations abundantly; while the business target covers the Monday-Thursday range, the other two focus more on weekends, with the bike target managing to deseasonalise. There is a significant invest-

ment in online positioning to minimise the impact of various OTAs (Online Travel Agencies). Customers immediately find the hotel website before discovering the same rooms through third-party platforms.

The reason why and the values on which The Foscarini's business model is based are: stories, sustainability, design, technology, and the future. From the beginning, it is essential to know the purchasing intentions of an upcoming customer while simultaneously efficiently communicating the foundations of the model. Otherwise, adopting sustainability and digitization policies, such as eliminating plastic or reducing human presence within the establishment, would be pointless. For this reason, communication is crucial. While it is true that the difference in personal values and digital skills between a twenty-five-year-old and a fifty-year-old has narrowed, it is important to be careful not to create false expectations. Instead, a good idea might be to provide a description of the services that is entirely consistent with reality and then, during the stay, offer something extra that the customer did not expect. Today's customer seeks a different experience from the ordinary, and to achieve this, it is essential to understand the critical points and tailor the service to the customer, as if it were a custom-made garment. To accomplish this, one must try to anticipate behaviors and needs because, in terms of experience, it occurs when someone has thought of something before you, and you are experiencing it in the same way. The motto is: eat your junky food and try to improve it.

A key part is, actually, knowledge of the facility and its services. A customer cycle was created to deliver this knowledge, with a pre-stay, stay and post-stay. In this way, the customer is followed from the first access to the website, is guided in choosing the most appropriate service and is helped in checking in. Once booked, the app guides him to the gate, and once the car is parked, the customer already knows the route to his or her room. During the stay, the app advises and assists the customer in using Mario and Anna, the food and beverage dispensers, perhaps suggesting wellness and healthy products to the cyclists or an excellent bottle of prosecco to the customer on vacation. Giving them personal names and humanizing them helps integrate them into the model and incorporate them into our common usage. It is critical to offer a high quality service, because the data show that in the post covid period those businesses that have merely raised prices without offering higher standards are the ones who suffer. Old-fashioned hotels have a written deadline, which is why they have to innovate all the time. Mr. Bof is keen to reiterate that

today's world is characterized by speed, which is reflected in the choices and signals we pick up. A new category of innovation is semiotics, which if you are good at harnessing allows you to pick up signals in time and innovate accordingly. This is a reasoning that can be applied to establishments like The Foscarini, but is more challenging to apply to larger entities such as 400-room 5-star luxury hotels. These have an industrial model in which it is difficult to integrate the experiential factor that makes you say, “I feel at home.”

4.5. Managerial Implication and Future Research

The future of The Foscarini could involve replicating the model and applying it to other similar establishments. At the same time, there's an effort to make it transferable to different target audiences. To accomplish such a task, a team with various professionals is essential, including an accountant, a technician capable of designing the right product, a marketing expert to find suitable positioning, and many other skilled individuals. For this reason, the creation of startup studios, encompassing all these elements, is increasingly necessary, enabling the development of replicable models. Through the hub-and-spoke model, The Foscarini aims to manage other entities, using the villa in Mogliano as its headquarters, experimenting with new co-living solutions. This is driven by two main reasons: on one hand, there is an economic incentive, and on the other, a cultural one; people want to be in places where others have something to share. For example, the concept of hotels is, in some cases, evolving towards that of senior living. Senior Housing – or Independent Senior Living – involves a system of independent apartments with kitchens and services, organized around a set of additional common amenities. Conceived for an updated concept of the elderly, it offers autonomous residences where seniors can experience a new dimension of social life, emphasizing quality, safety, and comfort. These places promote socialization and well-being every day, with the dual nature of private residences that respect privacy but are set in contexts with common areas for socializing.

4.5.1 Emerging Business Models in Tourism Industry

The presented business model by The Foscarini is undoubtedly innovative. The use of new technologies and the pursuit of sustainable goals are the levers that make this model so interesting. The objective is to make it economically sustainable and replicable in other

similar contexts. To achieve this goal, it is essential to understand the market and the service being offered. In the case of The Foscarini, such as a 31-room hotel in Mogliano Veneto, ensuring profitability with a traditional business model is not always possible. This is because we are dealing with a structure that, on the one hand, it is not located in an area with a high tourist vocation, on the other hand, does not have the minimum size to benefit from economies of scale and cannot be managed with industrial models. To overcome this obstacle, the proposed approach is to maintain the small size, making the structure competitive by targeting specific customer segments. For example, the focus could be on those who value sustainability and prefer eco-friendly means of transportation, such as public transportation or bicycles. Additionally, targeting customers interested in a tourist experience less centered on direct interaction with hotel staff and managers could be another strategy; from the company point of view, this allow to focus on core business and externalize the rest of the activities. This approach aligns with the trends of the new generations, as discussed in the previous chapters. The new generations prioritize seeking freedom and flexibility when traveling, and they are more open to new products and tourism experiences. The business model proposed by The Foscarini fits into this context by providing complete autonomy to guests from the moment of booking throughout their entire stay. This is made possible through customer profiling during the pre-stay phase, identifying the right target audience to offer their product.

4.5.2 Network Organization in Tourism Industry: Hub-and-Spoke Model

The Foscarini's business model generates new opportunities that were difficult to imagine before. A structure like that of The Foscarini could easily become the headquarters for a Hub and Spoke model. This model originated in US airlines and has been widely adopted in various industries. In the context of airlines, the hub serves as a central point where air traffic converges and is distributed to smaller destinations or "spokes." The hub plays a crucial role in defining operational standards, operational efficiency, and providing efficient connectivity between different destinations. This approach has proven to be versatile and adaptable to various situations. In the hotel industry, this model is based on the creation of centralized standards, distributing specific services through the "spokes," optimizing operational efficiency, and offering a broader and more personalized value proposition to customers. The "spokes," or peripheral agents, are hidden assets that emerge as

independent yet interconnected points, sharing a consolidated management model. Technological investments are centralized in the hub, allowing certain services to be guaranteed in remote parts of the network. This model is particularly applicable to entities surviving in traditionally less touristy contexts, providing them the opportunity to become part of a larger network with a more extensive service offering. The model aligns with the trend of new generations preferring less "popular" and more authentic destinations. This way, the burden on destinations affected by over-tourism is alleviated, tapping into a target audience with a higher willingness to pay for sustainable services.

4.5.3 Meeting Z-Gen & Alpha-Gen Needs

Another fundamental managerial key lies in intercepting the right target audience for this type of service. In this way, specific needs such as sustainability and a preference for alternative tourist experiences with limited contact with staff are addressed. As seen earlier, in Generations Z and Alpha, the connection with the local community and the creation of authentic experiences are crucial. In this context, The Foscarini allows a high degree of autonomy for its guests, introduces them to the historical context, giving it significant weight within the experience, and offers an interesting level of service customization. Guests, once profiled within a specific target, are provided with a range of tailor-made services; from managing heating and lighting to dining recommendations, and various possible transportation options to reach desired locations.

All of this occurs through the concept of semiotics, with stimuli mainly coming from the technological devices we use daily. The new generations are the first "digital natives." Technology is crucial for them and now enables them to interact with the physical world. Therefore, the ability to use these means on one hand and the ability to attract this type of clients on the other become essential. By intercepting this target, vertical integration in the tourism market is achieved, allowing the creation of a product/service in collaboration between the provider and the end consumer. The Foscarini strongly believes in this business model, as evidenced by the use of digital assistants for breakfast, Mario and Anna. These technological assistants leverage the Internet of Things (IoT) to perform routine tasks, allowing human staff to focus on other activities, making the entire model efficient.

It is clear that such a service is directed towards a target audience not interested in interacting with a barista for breakfast but prefers focusing on planning their itinerary for the day.

4.5.4 Upskillig & Reskillig

The contribution of skills from professionals plays a crucial role. Without a high input of skills from operators, the model cannot stand. Carlisle et al. (2021) emphasizes that, all staff will need digital skills and know-how to work with computers, tablets, mobile applications, Office, email, and hotel software. Accommodation staff also need to be able to work with Property Management System (PMS) and Customer Relationship Management (CRM) cloud-based systems. For instance, Destination Management Organizations (DMOs) will transition from merely providing information (which visitors can access themselves through the internet) to offering inspiration and experiences for visitors.

They also take on the role of consultants, providing advice on how to attract new target groups. At the management level, skills are necessary for data analytics and data-driven marketing, understanding algorithms, developing strategies based on data gathering, and being able to measure the results of campaigns. This is clearly evident in The Foscarini's model; the staff is multilingual, proficient in new technologies, and has a good problem-solving ability, even remotely. These skills are more prevalent in the new generations, which are more accustomed to new technologies and trends compared to older generations that still use traditional methods. As experiences become more central to attractions and guests demand increasingly higher levels of customization, creativity, storytelling skills, and the ability to incorporate new technologies, digital skills become even more important in the tourism sector.

4.6. Conclusion

The tourist sector is undergoing years of radical changes. The integration of new technologies is crucial to staying in the market and competing efficiently. Industry 4.0 technologies are crucial for proposing business models that aim for economic effectiveness. At the same time, the new generations bring new trends and interests; among these, environmental issues are certainly a vibrant theme that also reflects on the tourist sector. Entre-

preneurs and stakeholders must therefore be adept at recognizing these trends and adapting them to various contexts in the best possible way. In this perspective, Patrizio Bof and his venture, The Foscarini, undoubtedly represent a perfect example of all this. A new way of thinking about hospitality that projects tourism-related activities into the future.

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