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*How Digital Innovation Is Reshaping the Tourism Industry:
Insights from Airbnb*

THESIS SUPERVISOR

Prof. Francesca Vicentini

CANDIDATE

Gemma Giorgia Di Leo

Student ID: 299871

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*Alla mia Famiglia,
il dono più grande
e la ricchezza più preziosa
di cui la vita potesse onorarmi.*

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INTRODUCTION

This thesis explains how the advent of digitalization has impacted the tourism sector, focusing in particular on the impact that digital platforms have had on redefining mediation systems, their influence on the ways in which value is created, and the restructuring of the competitive landscape in this sector.

Digital innovation is therefore not simply a technological development, rather, it has completely reorganized fundamental aspects of tourism, such as production, distribution, and consumption itself, and this has consequently impacted the entire economic and territorial structure.

More specifically, digital platforms have materially changed the ways customers search, compare options, and book accommodations. This has had a direct, broader impact on the entire tourism infrastructure, including both the strategic formulation of traditional hoteliers and the social issue of the development of short-term rentals.

The thesis structure follows this perspective, initially highlighting key features of the platform business model, such as the centrality of two-way markets and the impact of network effects. It also explores issues such as the criticalities of long-term monetization resulting from the value created. This value is generated precisely by exchanges between the various groups connected by the platform, and it is precisely this mechanism that allows for the potential scalability of the business.

The second part of the thesis takes a more detailed look at the tourism sector and all the elements most impacted by the advent of digitalization. The analysis reports significant benefits in the sector, with visible improvements in information accessibility as well as a greater variety of choice among the services offered.

Furthermore, the study notes an increased demand for greater flexibility and customization in tourism experiences and, finally, the importance of the sharing economy in defining the offering.

The final section is dedicated to analysing the Airbnb case study, as it provides a concrete demonstration of the impact of digital integration in the tourism sector.

The innovation introduced by the platform focuses not only on a mere intermediation between two groups of users, hosts and guests, but also on a structure based on real rankings, reputation

systems, and increasingly advanced monetization methods, elements that have ensured greater reliability of the platform over time.

Furthermore, the analysis highlights how Airbnb, over time, has exerted increasing competitive pressure on traditional competitors, especially with regard to pricing power and hoteliers' actual revenue, as also indicated by the economic indicators used in the study.

Although the resulting outcomes show an overall increase and improvement in customer satisfaction compared to traditional hotels, the platform also faces several critical issues. Airbnb has effectively moved away from its initial spirit, based on the peer-to-peer concept and occasional use. Furthermore, significant and ongoing tensions are highlighted in relation to the urban and residential context, as well as imperfect development in some areas fundamental to the platform's functioning, such as trust and accessibility, and, above all, difficulty managing the progression of economic growth.

The underlying idea of this thesis is to demonstrate how the tourism sector is increasingly moving away from the traditional structure based on the ownership of physical assets. Indeed, a significant competitive position can only be achieved by developing organizational capacity that adapts to markets and efficiently managing coordination and user information provision.

Finally, the findings suggest the need to further explore the role of platforms in ensuring more balanced integration with local tourism systems, especially in light of the growing debate over short-term rentals and their urban impact, particularly with regard to rising rental prices, reduced housing options for residents, and tensions in the most touristy urban areas. Further research could focus on identifying regulatory and operational models capable of improving the sector's sustainability, reconciling digital innovation, accessibility, and the protection of local contexts.

CHAPTER 1:

Digital platforms and their business model

1.1 The digital evolution of the economy

Over the past decades, the global economy has undergone a profound transformation driven by the growth of digitalization. Digital innovations have reshaped the structure of traditional markets, how companies communicate value and how they interact with end customers.

More specifically, advances in information and communication systems have increasingly enabled the formation of new business models that rely on the Internet and the use of digital data as their primary economic resource.

For example, thanks to the liberalization of telecommunications markets in Europe and the United States in the 1980s and 1990s, revolutionary digital services emerged. These, coupled with the evolution of communication infrastructures, contributed to the development of this new form of economy.

Subsequently, in the 1990s, the appearance of the Internet as a global network fostered the development of new economic models based on the interaction of users and businesses.

This led to the emergence of digital markets, enabling the growth of what we now call online platforms, which represent one of the pillars of the so-called digital platform economy.

This can be defined as an economic model in which online platforms act as intermediaries between different types of users. Thanks to this, they have become one of the most widely used business models in today's economy, as they facilitate connections between people who use the service and between suppliers and businesses, generating digital ecosystems whose main characteristics are a significant network effect and a remarkable capacity for innovation (Eckardt, 2025).

1.2 The platform business model: a two-sided market

The platform business model is a framework in which a company generates value by fostering relationships between different types of users through a digital platform that allows the sharing of goods, services, or information.

Unlike a traditional business model, the value realized from the platforms is not created by the company's direct production of goods or services, but rather by the infrastructure's ability to efficiently and effectively organize and coordinate interactions within the digital ecosystem (OECD, 2019).

The functioning of networks is closely linked to the concept of two-sided markets, which are markets where digital platforms connect distinct but interdependent groups of users. The value created from this channel, therefore, lies precisely in facilitating interaction between these different categories of participants, since the value generated for one category of users depends on the presence of users belonging to the other category (Srinivasan, 2021).

This structure differs significantly from the traditional businesses, also known as a pipeline model. In this framework, value is generated through a linear chain of production activities in which products and services are developed during the production process and subsequently distributed to the end consumer. Value is generated by a sequence of stages within the production chain, while the flow of money proceeds in the reverse direction. It originates from the consumer and is transferred to the various actors in the production chain (Osterwalder & Pigneur, 2010).

In the platform business model, the benefit is not generated by a linear process, but rather by the interactions between users of the platform. Consequently, the company's activities are not limited to the production and distribution of a good or service, but are primarily based on the coordination of the various groups in the ecosystem. This involves a transition from direct ownership of resources to the management of assets belonging to other entities, and from an entirely internal production organization to a model based on the interaction between various participants external to the organizational structure.

Digital intermediation therefore plays a key role in this scenario. Platforms act as mediators between supply and demand, facilitating relationships between users with complementary needs, and streamlining economic exchanges. Furthermore, this innovative structure helps reduce information search costs, improves interaction processes between the parties involved, and makes exchanges faster and more efficient (Kim, 2015).

1.3 Network Effects

The phenomenon of network effects arises when the value creation benefits increase with each new user who begins using the platform. This concept applies to both physical and technological networks, industry standards, and digital platforms. They can be formally

explained through the theory of network externalities, which analyses the growth in platform value generated by a new user. More specifically, the total benefit of network technology for a potential user is defined by the term $V = a + b(N)$. The variable a describes the network-independent benefit, meaning that it has its own value regardless of whether any other users use it. $b(N)$ represents the added value derived from network users. Network effects occur when the benefit of a platform increases with each additional user (Schüler & Petrik, 2023).

Network effects allow platforms to grow more rapidly and face lower initial investment costs compared to traditional companies. Furthermore, if these effects are efficiently and effectively exploited by platforms, they enable ecosystems that can reach millions, if not billions, of globally distributed participants. As a direct consequence of this phenomenon, the value created is much higher than with traditional pipeline models (Parker, Van Alstyne & Choudry, 2016).

The positive side of activating network effects is that once the process begins, if skilfully managed, it becomes self-reinforcing. However, for the impact to take hold, platforms must attract a sufficient number of users, and once this is achieved, they must ensure that the value generated by user interactions is monetized without compromising the network effects themselves.

This may lead to indirect network effects, which foster strong platform growth, but in the absence of strong user loyalty, which may gradually weaken initial positive outcomes.

This type of phenomenon can trigger a damaging cycle for a two-sided platform, where the loss of users on one side can reduce the value of the platform for participants on the other side.

Furthermore, platforms have low switching costs, particularly those in the tourism sector, where users can easily switch from one network to another. As a direct consequence of this, combined with the widespread practice of multi-homing, the simultaneous use of multiple similar platforms by both consumers and hosts, building lasting customer loyalty is increasingly difficult in the peer-to-peer (P2P) accommodation sector.

A representative example is the case of Airbnb's exit from the Chinese market, discussed by Huang and Huang (2021). Airbnb initially achieved global success thanks to its innovative business model, based on a digital platform that easily and instantly connected hosts and guests seeking accommodation, thus better meeting the needs of both parties.

The combination of this new approach with the advancement of network effects has attracted increasing numbers of users even in China, a strategic country due to both its open-mindedness and high incomes. (Huang, D. & Huang, S. 2021).

What the article highlights, however, is that this new mode of interaction was not enough to guarantee Airbnb a lasting competitive advantage. This was driven not only by the replicability of its model but also to the ability of local competitors to maintain customer loyalty by adapting to the evolution of the P2P accommodation market. Indeed, although these companies initially took inspiration from Airbnb's structure, over time they have surpassed it in terms of performance, to the point of meeting the preferences and needs of Chinese customers more effectively and accurately.

This phenomenon could limit Airbnb's potential to attain mass-market appeal in other markets and lead to increasingly declining company performance, further exacerbated by network effects, which in this case are negative (Huang, D. & Huang, S. 2024).

1.4 Impact of digital platforms on traditional business models

Intermediation between producers and customers is the key element that distinguishes digital platforms from traditional business models, as this mechanism generates a series of effects that benefit digitalized companies, although at times they also alarm them.

Companies such as Uber, Airbnb, and Amazon have successfully leveraged this new organizational model to the point of generating a true revolution in long-established sectors and, arguably, developing genuine new markets.

One of the influence that has most revolutionized companies has been, as mentioned, network effects, which have ensured unprecedented exponential growth, significantly increasing pressure on traditional firms. Despite this, factors such as adapting to changing customer behaviour and addressing growing competitive forces have been what have most challenged companies in this transition process.

The graph in Figure 1.1 shows a comparison between the earnings of companies based on a traditional business model and those that have instead introduced digitalization over the years. As the illustration shows, digital businesses have experienced constant exponential growth from 2010 to the present day, thanks to network effects. On the other hand, traditional businesses have not shown any significant decline, but rather a stable and linear increase over time.

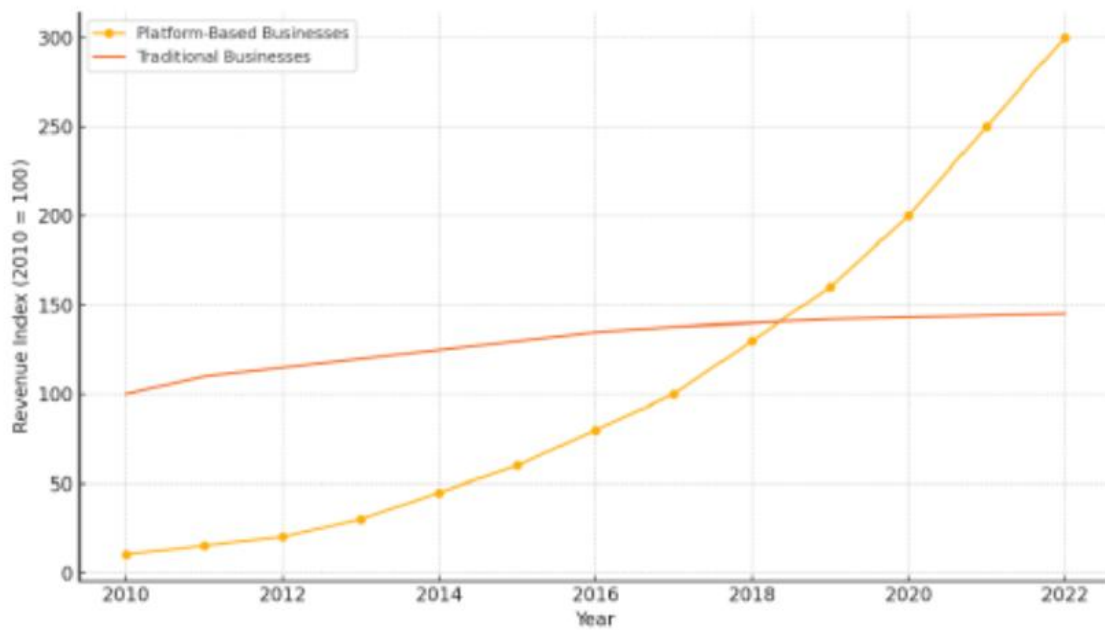


Figure 1.1: Comparison of Revenue Growth: Platform-Based vs Traditional Businesses (2010–2022)

The benefits brought by digitalization have primarily impacted revenue sources, the methods of generating business value, and costs, the structure of which has completely changed. New technologies, such as automated processes, data analytics, and artificial intelligence-based systems, have been introduced, allowing companies to streamline operational activities, contain expenses, and optimize decision-making processes.

To give a concrete example, predictive analytics allows companies to anticipate future consumer needs, and robotic process automation (RPA) minimizes manual tasks.

Despite the aforementioned advantages, this shift to digitalization faces challenges that small and medium-sized enterprises (SMEs) in particular struggle to address, such as the lack of initial financial resources necessary for the introduction of technological innovations and the potential relocation of the workforce caused by the use of automated systems. Indeed, they rely heavily on support from government authorities and industry bodies, which, through incentives, infrastructure investments, and training programs, foster digital integration in these organizations.

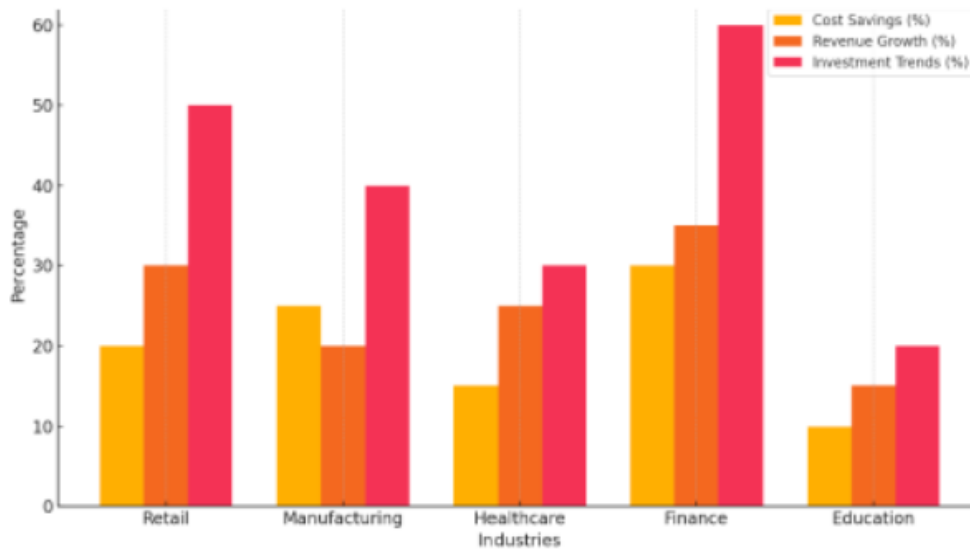


Figure 1.2: Effects of Corporate Digitalization across Major Industries

Figure 1.2 shows the concrete impact that corporate digitalization in major industrial sectors (Retail, Manufacturing, Healthcare Industries, Finance, Education) has had on traditional companies in terms of factors such as Cost Savings, Revenue Growth, and Investment Trends. The cost section shows how the introduction of digital has reduced company expenses, for example through automation, which requires less manual labour, cloud computing, which reduces IT costs, and the use of AI, which minimizes errors and inefficiencies.

On the other hand, this analysis also illustrates how practices such as customizing offerings tailored to the individual customer, the creation of e-commerce, and dynamic pricing, which means prices are not standard but change in real time, have increased sales, reached a greater number of customers and consequently maximized revenue.

The sector experiencing notable growth, however, with an increase of more than 40% in most of the industries analysed, is investment in digital technologies. This illustrates how companies have recognized that developing the corporate digital sphere through investment initiatives in digital systems such as artificial intelligence, data analytics, and digital platforms is necessary to remain competitive in an ever-evolving market (Rakhimov, 2024).

1.5 Monetization of platforms

1.5.1 Understanding the value of the platform

The monetization of digital platforms is complicated network effects, which, despite representing the main source of value creation for this business, must be managed to generate growing and sustainable earnings. It is important to recognize that network externalities, even with marginal commitment and investment on the part of platform managers, can attract ever-increasing users through the creation of self-reinforcing feedback. Indeed, the more producers create value, the more this attracts new customers, who in turn incentivize more producers to use the platform.

However, progressive user growth does not necessarily translate into effective monetization. Indeed, imposing a payment when users access the platform could lead to a complete lack of use, or imposing a payment while users use the network could equally lead to reduced participation, or even imposing a fee for producers would reduce value creation because it would be less attractive to customers. It would therefore seem that charging a price for consumption or production of the platform would reduce its use. This reduction in the potential volume of interactions and, consequently, the actual value created would also reduce the amount of useful data the channel uses to facilitate the matching of supply and demand, leading to an increasingly inefficient outcome.

The key lies in monetizing a platform by maximizing network effects without reducing or destroying the value they generate.

The goal, therefore, rather than imposing a fee when a new user logs into the platform, is to incentivize more and more users to create new profiles by providing them with tools and services that make the entire process increasingly straightforward and easy to complete. This is, in fact, the only way to consolidate a stable and consistent user base, since the fee is marginal in the eyes of the customer, representing only a small additional cost compared to the entire transaction, which would take place anyway and is based solely on their performance.

Experts even recommend reducing the prices of services and goods sold digitally to zero.

Despite this, for platforms to survive, it is essential that they generate even a minimal amount of consistent income to ensure continuous improvement of the services offered.

Furthermore, even from a financial standpoint, if funding were to be lacking, external investors would no longer be able to provide the resources necessary for the platform's growth, as they would no longer be attracted to it.

To ensure both a certain level of free service for the consumer and profit for the manufacturer, various business models exist that attempt to optimize the outcome for both parties. Two prime

examples are the Gillette razor business model, conceived by King Gillette in 1901, and the printer manufacturing strategy. For these models, the primary revenue is not generated by the primary product razors or printers, which are sold at low prices, but rather by the "spare parts" these products require for use, such as blades and cartridges. These require continuous and repeat purchases, thus ensuring consistent earnings over time.

Another model that applies a similar strategy is freemium. This version of online business guarantees free access to the platform via a basic subscription, and subsequently, if needed, the customer can upgrade to a more advanced, paid subscription. Examples include platforms such as Dropbox and the Mailchimp platforms.

Lastly, a final approach is to require only one of the two user groups to pay, while the other group receives a partially or entirely free service.

This model works because the non-paying user group serves to attract new users and create value, which is then monetized by the other group. A prime example is companies that are willing to pay increasingly larger sums of money to the platform as the number of users increases.

It can therefore be said that the major difference between traditional models and platforms is that while traditional companies (the pipeline) create value by offering products or services, generating revenue through consumer ownership or use, platforms earn revenue through user participation, whose interactions generate value for the platform and therefore revenue for its operators.

The complexity of monetization can best be explained only after a careful analysis of the value created by the platform, which can be divided into four distinct categories:

- For consumers: through the ability to access the resources and services offered by the platform. Examples include YouTube users, who benefit from the value created by videos, or Android users from the system's apps.
- For producers: through the opportunity to access a network of users or a target market. For example, Airbnb connects hosts with potential clients in an international market, or LinkedIn, which connects recruiters and candidates.
- For both: they have the opportunity to use tools and services that enable more immediate and effective interaction. Indeed, supply and demand have virtually eliminated barriers thanks to platforms. An example of this is eBay's performance in digital commerce.

- For both: the level of curation, or the quality of the selection systems. The matching between customers and producers is highly accurate, allowing the needs of both to be consistently met.

The monetization strategy must begin with these value drivers to be successful and effective. Specifically, it requires the ability to select those to capitalize on without jeopardizing the expansion of network effects. It can therefore be said that, to ensure they are adequately leveraged for monetization and thus the creation of effective value, they cannot be measured solely by the number of users.

Furthermore, a paradox exists between the size of the network and the ability to monetize. Indeed, due to the negative effects of the network, the ability to generate revenue can increase as the number of users using the platform decreases.

The risk is that market entry barriers that are too low can lead to a decline in the quality of the service or experience, as inadequate selection of what is uploaded to the platform is made. The goal of platforms, therefore, is not simply to increase the number of users by any means, but rather to guarantee customers an excellent and consistent service or experience, one that is not disappointing or low-quality.

The idea, therefore, of not charging users to maximize network effects is not entirely correct; in fact, in some cases, it can actually have the opposite effect.

1.5.2 From Value Generation to Monetization on Online Platforms

There are various ways to develop a successful monetization strategy, and analysing them requires keeping in mind the sources of added value generated by platforms: access to value creation, market access, access to tools, and curation. There are four strategies for monetizing a platform:

1. Transaction Fee

This strategy in particular involves the payment of a fee. An example is Uber, where the customer pays the platform for the service provided by the taxi driver. The role of platforms in this process is precisely to facilitate monetary exchanges between the two parties, monetizing the value created through the application of a transaction fee, which can be charged as a

percentage of the price or as a fixed cost per transaction. This revenue stream is perfect for maintaining the benefits of the network, as users will only pay the fee once the transaction is completed and will not be deterred by any barriers to entry. This only happens if the fee is not too high, as otherwise it could completely discourage users from using the platform.

Particularly for online systems that provide services, a very complex challenge is the private relationships that could develop outside the platform between buyers and sellers who wish to avoid paying the final commission. This could lead to the phenomenon of disintermediation, or the reduction of intermediation between the two parties, which could lead to a reduction in the value created. This occurs because the service provider would be able to retain a larger amount of money, and on the other hand, the customer would receive a discount on the final transaction, degrading the digital infrastructure's earnings.

To avoid this scenario, platforms limit the direct relationship between consumer and producer, for example by providing all the key information so that the customer does not need to contact the seller. Another approach is to use rating processes and social indicators, which in turn aim to reduce contact between the two parties.

However, there are situations that require complex relationships, such as those involving professional services. In these cases, it is the platform's responsibility to make this contact easy and efficient by providing specific tools. For example, they offer the ability to monitor activities and transactions, ensuring active interactions on the platform. These measures could reduce friction, limit risk, and encourage users to continue using the platform.

Despite this, in some cases, such as essential local services, these measures are not sufficient to guarantee long-term profits without impacting network effects, which is why other monetization methods need to be explored.

2. Pay-per-Access

This monetization method requires that payment for access to the platform is not made by community users, but by external third-party entities, who leverage the network's size to generate revenue by offering their services to platform users. Therefore, it is external companies who generate value, not community members as in the previous case. Take Dribbble, for example, a platform considered an established reference point for artists and designers who want to showcase their work and gain recognition for their work, thereby gaining trust, credibility, and peer feedback. It allows them to access and use the platform for free, since otherwise, with an entry fee, far fewer designers would participate and the platform would be

worth less. Instead, the companies operating in this sector pay, through the traditional advertising model. In this case, however, this method is not disruptive for the designer using the platform, since the ads posted by the companies could, for example, be job offers in their field, thus representing added value for the user. This monetization method therefore improves the platform for those who use it, simultaneously allowing for revenue for the platform and external companies, but above all, without reducing the generated network effects.

This benefit can only be sustained in the long term if the external content uploaded for the community adds value to its members. Otherwise, the overexposure of these ads could lead to a reduction in users choosing to access the platform.

3. Payment for enhanced access

There are cases in which the platform does not directly control the transaction, despite facilitating its completion. When this occurs, the platform can charge producers to ensure their product or service provides added value perceived by the customer. In this way, despite intense competition, platforms provide producers with tools that allow them to capture consumer attention more directly and immediately. An example of enhanced access as a monetization strategy could be a fee charged for better targeted messaging, more engaging profiles, or a guarantee of connecting with valuable users.

Furthermore, this method does not harm network effects in any way, as consumers have free access to the platform and could only upgrade to the enhanced paid version at their own discretion.

However, if the content produced by producers is not relevant or aligned with customer needs, this can lead to a reduction in access to the platform, conversely developing negative network effects. The key principle this strategy must be based on is ensuring that enhanced paid services are clearly highlighted and differentiated from free ones. Furthermore, platform managers must ensure that the monetization of paid services does not in any way restrict user access, this may discourage users from engaging with the digital network.

4. Payment for improved curation

As mentioned, quantity does not always indicate benefit. In fact, positive network externalities are influenced not only by the number of users but also, and perhaps above all, by the quality of the participants. For example, with platforms like YouTube, the value of the digital

infrastructure for users can easily be diminished by the meagre number of videos, few of which actually possess the quality and content consumers demand, reducing the platform's appeal. Because of the added value provided by improved curation, consumers are willing to pay to access the platform.

A prime example is Sittercity, an online platform that connects parents looking for a childcare provider with babysitters looking for families to work with. This platform is recognized as one of the most reliable in this matching process, as it performs very careful supervision of the babysitters who access the platform, providing parents with clear added value in their choice. This guaranteed peace of mind and reliability means the platform charges a fee for parents' subscriptions to access the platform, rather than a transaction fee per transaction, as is typically the case with platforms offering services.

To clarify the discussion developed in this section, the table in the Figure 1.3 below provides a comparative overview of the four main monetization strategies of digital platforms, with particular attention to their functioning, strengths, and potential drawbacks.

Monetization strategy	How it works	Advantages	Disadvantages / risks
Transaction Fee	The platform charges a fee only after a transaction is completed.	• No initial barrier to entry • Revenue is linked to actual usage • Monetizes value after it is created • Can preserve network effects if the fee is moderate	• High fees may discourage participation • Risk of disintermediation • May weaken network effects in some service markets
Pay-per-Access	Users access the platform for free, while third parties pay to reach the user base.	• Free access for users • Supports network growth • Preserves user participation • Can create value for both platform and advertisers	• Excessive advertising may reduce platform appeal • Irrelevant content may weaken user interest • Sustainability depends on the usefulness of third-party content
Payment for enhanced access	Producers pay for greater visibility or better access to valuable users.	• Free access for consumers • Helps producers stand out • Supports exposure in competitive markets • Can improve matching when content is relevant	• Irrelevant promoted content may reduce value for users • May generate negative network effects • Paid visibility must remain distinct from free services
Payment for improved curation	Users pay for a more accurate, reliable, and supervised selection system.	• Increases trust • Improves perceived quality • Strengthens matching reliability • Justifies payment through safer service	• Requires constant quality control • Value falls if curation weakens • Depends on maintaining high standards over time

Figure 1.3: Comparison of the Four Main Monetization Strategies of Digital Platforms

These monetization methods demonstrate that more value is often created by adding a payment only after the business has been launched. As the slogan "Users first, monetization later" suggests, platforms should focus first on attracting as many users as possible, creating value for them by offering free services and leveraging network effects. Only after value has been steadily generated for both producers and customers should the platform seek to earn a percentage of that value.

Many companies have failed precisely because they ignored this principle, attempting to prematurely capitalize on interactions between users and producers. At the same time, the transition from a free to a paid model is not simple or immediate, as companies must seek to justify charging for a service that creates additional value beyond what customers are already accustomed to, avoiding charging for access to value they have already received.

Monetization is therefore not an easy challenge for platforms, and it has a significant impact on their long-term sustainability. The task of platform managers is, in fact, to plan from the platform's inception which monetization strategies they will use once the value has been created and how they should be designed to exploit as many revenue streams as possible for as long as possible (Parker & Van Alstyne & Choudary, 2016).

In conclusion, the chapter highlighted the role digitalization has played in making digital platforms a fundamental pillar of the modern economy. What distinguishes them from traditional business models is their value creation mechanism, which occurs through interactions between users of the digital infrastructure which is further amplified by network effects. The greatest challenge for managers of these digital systems is, in fact, managing this progressive growth of the ecosystem, while simultaneously seeking to strike a balance between expanding user volume, quality of services, and sustainable profitability.

In this scenario, the main challenge lies in concretely monetize the platform, transforming the value created into consistent earnings without negatively impacting user engagement.

What determines the platform's success is the online system's ability to effectively manage the delicate balance between value generation and value capture, and this highlights the key role of this business model in allowing companies to maintain an advantage in a highly competitive market.

CHAPTER 2:

Digitalization of the tourism sector

2.1 Structure of digital platforms in the tourism sector

As with many two-sided market models, digital platforms in the tourism sector are based on an intermediation system in which the platform represents the digital infrastructure that facilitates the connection between two different but interdependent groups of users: on the one hand, hosts, those who rent accommodations, and on the other, guests, those who are looking for accommodation.

The ultimate goal of peer-to-peer accommodation is to attract a sufficient number of hosts and tourists in need of short-term housing. The platform becomes more successful as the pool of users expands, which increases users' willingness to pay due to the greater attractiveness of the network (Eisenmann et al., 2006).

In this context, the primary role of the platform is to optimize the matching between supply and demand, mitigating search costs and increasing the efficiency of operations between participants.

What differentiates platforms from traditional tourism business models is not primarily the ability to attract a sufficient number of buyers, but rather the management of supply and demand. The novelty lies precisely in the fact that neither the demand nor the supply side are directly managed by accommodation networks.

Hotel chains apply a proactive approach to structuring demand. For example, the locations of new hotels are carefully selected based on expected demand. Even on a smaller scale, such as motels, bed and breakfasts, hostels, and campsites, demand is estimated in advance and supply is planned accordingly. Supply planning, however, is not applicable to digital tourism platforms, as they must convince buyers to purchase a property and also convince hosts to rent unused or underutilized space, thus requiring a dual strategy. Marketing is the tool that allows them to implement a successful plan on both fronts.

Ensuring sufficient level of both supply and demand is the main challenge for platforms that operate in the highly competitive short-term rental market.

A key element in achieving this lies in the variations of both sides of the market. From the buyers' perspective, relational dynamics and authentic stay experiences are fundamentally important in the customer's decision to purchase the accommodation, as are the reliability and the consistency of the host's photos with reality. From the sellers' perspective studies by Deale and Crawford (2016) and Karlsson and Dolnicar (2016) show that the factors that most influence a host's decision to rent out their property are the social aspect of hospitality and the willingness to share unused spaces, as well as the exploitation of the aesthetic value of the place where they live. When we talk about variation as a platform's strength, we mean the heterogeneity, both in supply and demand, of the accommodation options offered, the variety of hosts and guests, and the diverse experiences shared. These are essential elements for satisfying every type of need of both customers and sellers, and for maintaining a high level of attraction over time.

The second pillar on which a network's success is based is trust. In the case of peer-to-peer stay, however, this is not referred to as trust in the relationship established between seller and customer, but rather the trust the user places in the platform used, which they expect to guarantee safety, security, and proper functioning throughout all stages of the purchase process. In fact, although interpersonal relationships between hosts and customers will develop, what guarantees the user's participation and the completion of the transaction is precisely the trust placed in the network chosen to meet their needs (Dolnicar, 2019).

2.2 Evolution of digital platforms in tourism

To scientifically analyse the evolution of platforms in the tourism sector, both from a practical and theoretical perspective, it is necessary to pay particular attention to the contrast between traditional business models and the new challenges posed by the advent of the digital economy. More specifically, the analysis focuses on key factors such as the accelerated digital evolution of the sector, changing consumer choices, and the expansion of global markets.

Data show that 85% of tourism companies have already integrated big data processing technologies into their processes, but only 50% have adopted mobile applications. This is also true for IoT (Internet of Things) solutions, which are used by only 45% of companies in this sector. As this process progresses, the integration of new components of the digital ecosystem is becoming a fundamental prerequisite for business success in the tourism sector. This dynamic: data indicates that 67% of tourists expect flexible booking options, 43% are

particularly attentive to sustainability principles in tourism, and 63% book in advance and therefore require this condition.

Figure 2.1 shows how digital evolution unfolds through four main factors: technological integration, customer centricity, platform economics, and operational process optimization. It highlights their characteristics, the adopted technologies and the outcomes of their integration.

Component	Characteristics	Technologies	Results
Technological integration	Automation, data analytics, integrated platforms	AI, IoT, big data, AR/VR, blockchain	Efficiency, cost reduction, quality improvement
Customer experience	Personalization, omnichannel approach, digital interaction	CRM, mobile apps, chatbots, predictive analytics	Customer satisfaction and loyalty, increased sales
Business model	Platform economy, ecosystem approach, flexible pricing	API integrations, cloud services, automation systems	New revenue sources, scalability, competitive advantages
Operational processes	Real-time management, operations automation, service integration	ERP systems, cloud solutions, analytical platforms	Cost optimization, quality improvement, response speed

Figure 2.1: Summary of components of digital transformation in the tourism business

The analysis reveals that the adoption of innovative technologies such as AI, IoT, and big data has enabled operational processes to be streamlined and costs to be reduced. A focus on customer experience through the integration of tools such as Customer Relationship Management (CRM), mobile apps, and chatbots has fostered customer loyalty and a more personalized experience. Furthermore, the shift in business models toward a platform system and the integration of cloud and automation systems are fostering the emergence of new revenue streams and the optimization of operational efficiency.

Overall, the table highlights how value in the tourism sector is generated through the synergistic interconnection between technological innovation, service perception, and process development, underscoring the crucial role of digitalization in the sector's evolution.

The evolution of the tourism sector unfolds in parallel with the development of social paradigms, as Figure 2.2 illustrate it is categorized into different levels, from 1.0 to 5.0. This highlights how technological advancement and social dynamics influence each other.

Each phase is characterized by the integration of specific technologies, interaction methods, and organizational structures, which help define both the tourism offering and ensure an improved customer experience.

Stage	Tourism Paradigm	Technological Characteristics	Interaction	Societal Paradigm
1.0	Tourism 1.0. Digital storefronts of tourism enterprises. Static websites with one-way communication. Beginning of online booking.	Web 1.0. Home pages. Enterprise focus. HTML content. Web portals. Metrics: page views, clicks.	Advertising. Taxonomy. Almost complete lack of interactivity. Focus on informing rather than interaction.	Society 1.0. Agrarian society transitioning to an industrial. Initial digitalization of business processes. Internet access is a privilege.
2.0	Tourism 2.0. Interactive tourism platforms. Social networks in tourism. User-generated content (reviews, ratings). Online booking boom.	Web 2.0. Billions of users. Community focus. Content sharing. XML, RSS. Web applications. Metrics: cost per click, CTR.	Word of mouth. User-generated content. Two-way communication. Community formation.	Society 2.0 Industrial society. Mass production. Service standardization. Development of mass tourism. Democratization of internet access.
3.0	Tourism 3.0. Semantic tourism. Personalized recommendations. Big data analysis for targeting. Integration of services into ecosystems.	Web 3.0. Multiple content forms. Dynamic content. Semantic web. Active user engagement. Geolocation services.	Meronomy (focus on meaning). Contextual interactions. Data-driven personalization.	Society 3.0. Information society. Knowledge economy. Digital nomads. Globalization of tourist flows. Growing importance of sustainable development.
4.0	Tourism 4.0. Intelligent tourism. Smart destinations. IoT in tourism infrastructure. Predictive analytics of tourist behavior.	Artificial Intelligence (AI). Big data. Internet of Things (IoT). Blockchain. Cloud technologies. VR/AR.	"Life flow." Seamless integration of digital and physical experiences. Proactive personalization.	Society 4.0. Super-smart society. Industry 4.0. Cyber-physical systems. Process automation. Platform economy. Datafication of social processes.
5.0	Tourism 5.0. Symbiotic tourism. Full integration of human and technological experiences. Bio-digital technologies. Autonomous tourism systems. Metaverse in tourism.	Web 5.0. Emotional web. Quantum computing. Neurointerfaces. Biotechnologies. Immersive technologies. Synthetic media.	Empathic interaction. Convergence of human and technological intelligence. Emotional and sensory communication.	Society 5.0. Society of Human-Technology Interaction. Technological humanism. Balance of innovation and human values. Solving global problems through technology.

Figure 2.2: Evolution of digitalisation developments in tourism and society

Analysing the various phases, a clearly defined evolutionary path emerges, starting from initially static and predominantly informational configurations (Tourism 1.0), based on the use of websites with one-way communication and oriented towards an informative purpose, to models with increasingly interactive and advanced structures. Tourism 2.0 saw the spread of digital platforms such as Booking.com and Airbnb, which allowed users to create content, such as reviews and rating mechanisms, thus significantly altering the booking and selection process. Tourism 3.0, on the other hand, is characterized by the adoption of the semantic web and data analysis, enabling the development of personalized proposals and integrated services, optimizing the customer experience.

The Tourism 4.0 phase, sees the emergence of cutting-edge technologies such as artificial intelligence, the IoT (Internet of Things), and blockchain, which have led to significant

improvements in automated services, dynamic real-time management, and integration with intelligent infrastructures, promoting the fluidity and adaptability of the tourism experience. The advanced level is represented by Tourism 5.0, as it demonstrates a complete integration between the human and technological spheres through the use of innovative technologies such as neural interfaces and immersive technologies, which enable highly personalized interactions aimed at globally optimizing the tourist experience.

Overall, the framework shows how the evolutionary dynamics of digitalized tourism are directly associated with technological progress and changes in social structures, highlighting the fact that each stage contributes to shaping the industry, increasingly focused on customization, interaction, and service integration (Bondarenko et al., 2025).

2.3 The digitalization's impact and the sharing economy's role in tourism

The tourism sector has structurally been significantly impacted by the development of digitalization, as it has created new ways to generate value through the interconnection of supply and demand. This trend is supported by industry revenue data. They show a marked increase from 1975, when revenues were reported at \$41 billion, to \$1.9 trillion in 2025. A notable coincidence is the acceleration of earnings in the 2000s, coinciding with the development of the internet and other similar technologies. Digital products have, in fact, been the key enabler of true global growth, as they have eliminated barriers to entry, such as search costs and language and geographic restrictions.

In this context, the tourism sector accounts for 10% of global GDP and is also one of the most important drivers of job creation internationally, thus making the impact of digital development on this sector increasingly significant (UN Tourism, 2025).

Considering the most recent revenues, technological development has promoted steady growth in demand in the tourism sector.

In the European context, the total number of overnight stays reached approximately 3.2 billion in 2017, a 5.1% increase compared to 2016, a phase in which the spread of online booking platforms and Online Travel Agencies (OTAs) took hold. This increase is the result of greater accessibility to the tourism market, also facilitated by the adoption of digital technologies that allow users to plan their trips in advance more quickly and efficiently (Eurostat, 2018).

Figure 2.3 support this trend, showing tourism growth rates in Europe, which clearly highlights how, in the 2024–2028-time frame, the digital segment will grow at a faster rate than the overall tourism market, in all major national markets.

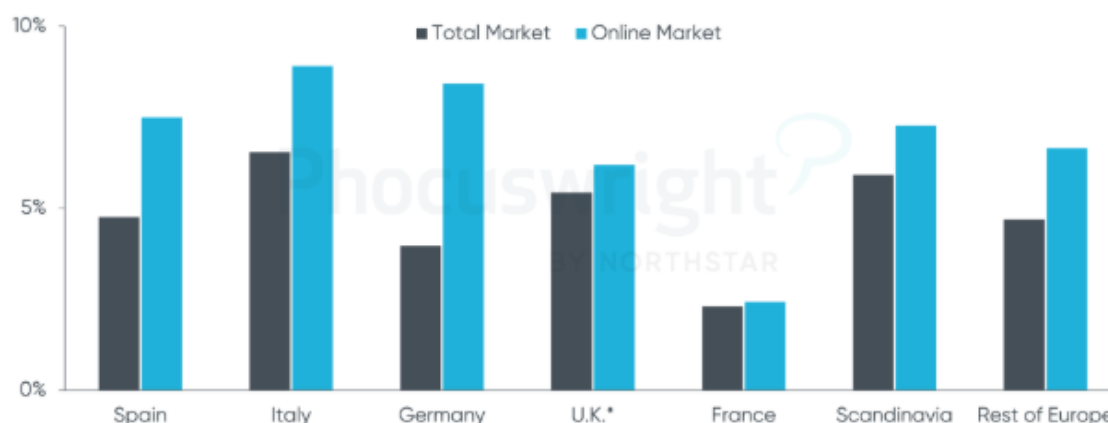


Figure 2.3: Europe Total and Online Travel Markets, Compound Annual Growth Rates by Country (%), 2024-2028

For example, Italy is experiencing and will consolidate a growth of 8-9% compared to a 6-7% increase in the overall market. Germany, on the other hand, is experiencing an even more marked gap, with an increase in the online component of 8%, compared to a value of approximately 4% for the overall tourism market. This highlights how digitalization represents the primary driver of a company's earnings growth, not only supporting but also accelerating its expansion in the sector (Phocuswright, 2024).

Structurally, especially in terms of costs, but also in terms of streamlining corporate operating systems, digital evolution has brought significant changes, reduced costs and increasing productivity.

Another significant aspect is the implementation of digital channels and tourism e-commerce. An increasing number of companies, 77% to be precise, have a website, 70% of them use social media as a marketing communication strategy, and 54% of customers within the European Union use and purchase online services in the tourism sector (OECD, 2020).

Thanks to digital integration, the tourism sector is therefore marking a real break from its original traditional model, a trend clearly visible in the changing consumer habits over time. This shift in trend is precisely what Figure 2.4 shows, which, at three different points in time

before the pandemic, after the pandemic, and in the future, analyses how people have also introduced the use of digital products into their lives.

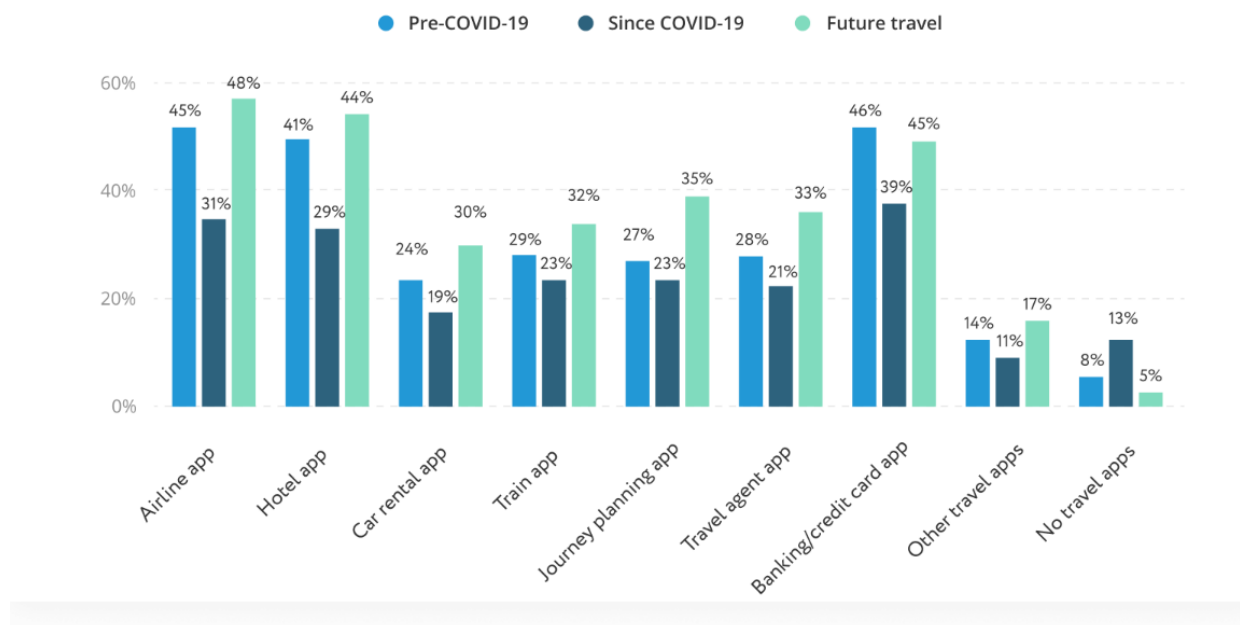


Figure 2.4: Changes in the use of digital travel applications before, during, and after COVID-19

The analysis clearly shows that the pandemic has brought a negative shock to the immediate post-COVID period, as a decrease in the use of digital apps has been recorded across all segments. However, current and future prospects are positive. In particular, airline apps are seeing a 3% increase in usage, going from 45% in the pre-COVID period to 48% in the future forecast. Similarly, hotel apps are reporting growth from 41% to 44%. This occurs despite both experiencing declines during the COVID period, to 31% and 29%, respectively.

This trend suggests that although the pandemic led to a temporary decline in the digitalized tourism sector, it subsequently acted as an accelerator of digitalization, consolidating consumers' adoption of online tools in the planning and booking phases of their trips (Amadeus 2021).

Within this framework, the growing role of the sharing economy in tourism is particularly relevant, as it has strengthened the effects of digitalization.

As the article states: "The sharing economy refers to a socioeconomic system built around the sharing of resources. It involves individuals sharing access to goods and services, often facilitated by a digital platform that connects those who have something to share with those who need it."

The value of the home-sharing market is expected to peak at \$40 billion in 2022. The sharing economy, on the other hand, is expected to reach approximately \$244.8 billion in 2025, while in 2026, it is expected to increase to \$309.7 billion, with a compound annual growth rate (CAGR) of 26.5% (The Business Research Company, 2026).

Figure 2.5 below demonstrates this trend, showing a progressive growth in the market value, expected to reach approximately \$752.83 billion by 2030, with a CAGR of 24.9% from 2026 to 2030.

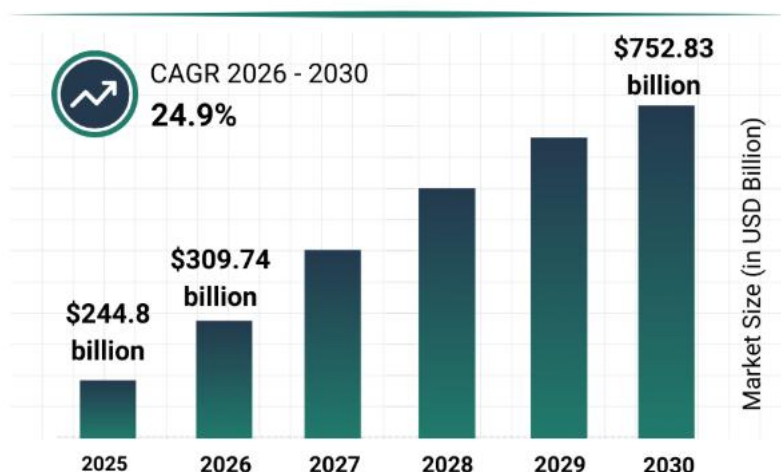


Figure 2.5: Sharing Economy Market Report 2026

This trend emphasizes the primary importance of digital platforms and the rapid expansion of sharing economy consumption models. In parallel, the contribution of local communities is also a valuable element that favours the expansion of tourism offerings, as it allows us to meet the growing demand for authentic and personalized experiences.

2.4 Network effects and competition in tourism platforms

Network effects are a particular characteristic of tourism platforms, as they are directly responsible for both the constant generation of value and the competitive balance of the entire sector. Platforms are essentially based on a bilateral business model, according to which the two market forces are closely linked, as the value perceived by one group depends directly on the behaviours of the other. In the case of the tourism sector, the platform's attractiveness to

tourists increases with the increase in the number of hosts, while greater host participation is encouraged by a growing number of active guests. In effect, therefore, it is the platform mechanism itself that strengthens its competitive position in the sector, as the dynamic created between the two parties merely encourages continuous self-sustaining growth (Mantovani et al., 2024).

Network effects reflect this theory: as the number of users on a platform increases, the value associated with a good or service also increases. This phenomenon is what most differentiates platforms from traditional business models, which maintain a solid competitive advantage thanks to so-called economies of scale, while digital economies generate value only if they consistently reach a critical mass of users (Katz & Shapiro, 1985; Zeqiri et al., 2025).

It's clear that network effects play a crucial role in digital tourism, as user choices depend on factors such as the breadth of offerings and the presence of other users on the platform.

In fact, a solid competitive advantage can only be achieved by simultaneously attracting both supply and demand, which platforms like Airbnb and Booking.com attempt to achieve by streamlining matching and continually improving the customer experience. The more intense and broader the network created, the more valuable the platform will be for other users (Nature, 2026).

Network effects also create strong barriers to entry for new competitors attempting to erode market share. Indeed, the greatest challenge for those attempting to do so is reaching a sufficient number of users when there are already established operators. Indeed, the most common scenario follows a "winner takes all" logic, according to which the market is dominated by a small number of concentrated operators (Mantovani et al., 2024; Zeqiri et al., 2025).

Regarding the competitive dynamics in the digitalized tourism sector, they are more complex than those faced by traditional hoteliers, since in addition to competing with each other, the platforms are also subject to pressure from traditional hoteliers, with whom they also collaborate. This creates a "competitive" mechanism, which, while strengthening the bonds between the various operators, also contributes to increasing competitive tensions between them (Zeqiri et al., 2025).

In conclusion, the structural transformation brought about by the digital transformation of the hotel industry has marked a shift in customer perception of the experience, increasingly customizing and adapting it to their needs. This trend, combined with the development of the

sharing economy and network effects, has contributed to making this industry increasingly competitive (Maghsoudi et al., 2026).

To provide a practical understanding of the theoretical principles discussed, the next chapter analyses the case of the Airbnb platform, which demonstrates how the digital transformation of tourism has brought about radical and irreversible changes in this sector.

CHAPTER 3:

Airbnb: Emblematic Case Study of Tourism Digitalization

3.1 Airbnb: profile and relevance of the case

Airbnb represents a key example of the development of digitalization in the tourism sector. The platform was conceived and founded in 2007 by Brian Chesky, Joe Gebbia, and Nathan Blecharczyk, three entrepreneurs who, starting from a small company, created a revolutionary business.

Airbnb began operating in its infancy, when the first hosts began renting out their unused homes, the very first were two hosts from San Francisco.

To date, the reported figures are incredibly significant, with a total of 5 million hosts and millions of registered properties. Furthermore, Airbnb has expanded to 150,000 countries and has over 2.5 billion guest registrations on a global scale.

These figures make Airbnb a leader in the sector, recording unparalleled progressive and constant growth (Airbnb Newsroom, 2025).

Furthermore, the company itself behaves like an international market. Thanks to the intermediation of its digital infrastructure, based on a two-sided marketplace, hosts have the opportunity to offer their accommodations, and through the strong network generated by the platform mechanism, these listings reach interested visitors. An analysis of the company's annual report shows that the platform's operations are based not only on the matching of two market forces, supply and demand, but above all on a solid relationship of trust, including host and guest feedback, account security, risk assessment, secure transactions, anti-fraud systems, and refund procedures (Airbnb, Inc., 2025).

Furthermore, Airbnb's main investors recently communicated the growing development of the platform, confirmed by the following data: at the end of 2025, the company recorded 533.0 million Nights and Seats Booked, 91.3 billion dollars of Gross Booking Value, and a total annual revenue of 12.2 billion dollars (Airbnb, 2026).

Airbnb is of significant importance not only because it highlights the opportunities arising from the integration of digital platforms, but also because it underscores the competitive and regulatory pressures they generate.

Furthermore, the company's annual report emphasizes Airbnb's strict adherence to laws, regulations, and rules that significantly impact the short-term rental system at the city, state, national, and regional levels.

To explore a concrete example on an international level, the introduction of new regulations in New York City in 2023 resulted in a complete ban on short-term rentals. Concurrently, data illustrates the significant impact platforms like Airbnb have had on traditional tourism providers.

Empirical evidence presented by Zervas, Proserpio, and Byers report that in Texas, every 10% increase in new accommodation listings on the Airbnb platform translates into a 0.39% reduction in hotels' monthly room revenue. The authors' analysis also focuses on another country, Austin, where Airbnb has significantly penetrated over the years, even resulting in a negative impact of approximately 8-10% for the most vulnerable hotel facilities (Zervas, Proserpio, and Byers, 2017).

From the elements analysed, it is clear that Airbnb is the perfect case for analysing how digitalization in the tourism sector has, on the one hand, reshaped the mechanisms of the industry, innovating and modifying the structural and economic structure of the business, and, on the other, increased competitive tensions in the real estate market.

3.2 The operational structure of Airbnb

Airbnb's digital business is not only designed to successfully match hosts with guests, but is also considered a digital ecosystem capable of influencing the structural mechanism by which accommodations are found and subsequently booked. During the search phase, the platform shows customers the availability of listed accommodations, but it also provides an active ranking based on both supply and demand.

The authors of the article, Grbovic and Cheng, illustrate the particular attention with which Airbnb selects and ranks listings that best suit guests' preferences, based on information about the location and travel dates chosen by the guest, while also taking into account host needs, such as length of stay and how far in advance they book.

The platform also identifies listings that are less attractive to visitors and less relevant to the host's needs, thus reducing the likelihood of a match between the two parties, ranking these listings lower in the system.

This mechanism demonstrates that Airbnb's intermediation isn't just about creating superficial connections between the two market forces, but rather acts as an algorithmic coordinator to ensure that the chances of a successful match between guest and host are higher and the chances of rejection are lower.

The same analysis also shows that search rankings and suggestions for similar listings are the two factors that conclude approximately 99% of booking transactions. This confirms Airbnb's central role in the ranking and recommendation systems within the platform's operational structure.

Furthermore, a major strength of this company is that the alignment between supply and demand is strengthened by a research process that is increasingly focused on customizing the service as well as constantly refining the satisfaction of customer preferences.

The two authors argue that guests, during their research session, evaluate multiple listings before making a final booking, clicking on numerous ads and contacting different hosts. These elements are crucial for the platform because, thanks to these signals, it can further personalize the content displayed in real time, increasing the visibility of listings consistent with the user's preferences and reducing those that deviate further from their needs.

Furthermore, the digital space processes embeddings not only on general clicking sessions but also on specific bookings made by the user, thus storing increasingly accurate information and preferences in both the short and long term and offering a variety of listings more closely aligned with the consumer's booking patterns.

It also emerged that the Similar Listings mechanism based on embeddings increased the click-through rate by 21% and that the percentage of guests who completed a booking after viewing a carousel increased by 4.9%. This highlights Airbnb's commitment to refining its matching techniques to improve conversion rates (Grbovic and Cheng, 2018).

What most characterizes platforms like Airbnb is the consolidated trust demonstrated by customers, which derives from a combination of elements such as reputation, the owner's identity, and certification systems.

Ert, Fleischer, and Magen illustrate how Airbnb places the property owner at the centre, not the margin, as they represent an integral part of the service offered. The entire accommodation booking process essentially involves direct interaction between people unknown to one another, placing the customer at greater risk, not only financially but also personally. It is precisely for this reason that solid trust between the two parties and the mediating platform is the foundation of this business's success.

The study also explains how factors such as the careful selection of hosts' personal photos play a fundamental role in influencing user decisions: the customer's perceived trustworthiness of the uploaded photos can actually impact the price chosen by the host for their accommodation. The greater the perceived trustworthiness, the higher the asking price and the greater the likelihood of being selected.

On the other hand, review rankings do not have the same level of credibility and are not particularly useful in listing selection because, in most cases, the scores reported are always in the very high range and consequently lose their critical preference value.

A subsequent analysis by Ert and Fleischer revealed that Airbnb has implemented significant and consistent changes over the years to ensure that the trust it has built is increasingly solid and long-lasting. For example, the platform has introduced a simultaneous review mechanism to eliminate instances of retaliation between hosts and guests, and to minimize discrimination, it has removed owner photos from the main search screen.

Finally, it has introduced a certification method through the use of the Superhost badge to make hosts deemed more trustworthy more visible.

Thanks to these small but significant structural changes to the platform, Airbnb demonstrates a progressive evolution in the choice of trust indicators used, from subjective signals to increasingly objective and reliable ones.

Airbnb's business model, therefore, is not just a digital platform for short-term rentals, but also a highly organized marketplace, in which the system directly manages the structure of the listed listings, completes booking transactions, and builds lasting trust between the two parties (Ert, Fleischer and Magen, 2016 & Ert and Fleischer, 2019 & Grbovic and Cheng, 2018).

3.3 Growth, value creation and monetization

Airbnb's success can be explained through the logic of digital platforms, since, as highlighted in previous chapters, over time, thanks to network effects, the system achieves sufficient

expansion on both the demand and supply sides to allow it to accumulate increasingly accurate data and increasingly stronger and more personalized matching, further accelerating growth.

This mechanism is also clearly visible by analysing the company's recent financial and operational performance. In 2025, Airbnb, in addition to the aforementioned figures relating to Nights and Seats Booked, Gross Booking Value, and annual revenue, also reported net income of approximately \$2.5 billion and adjusted EBITDA of \$4.4 billion.

From these data, it can be deduced that Airbnb is no longer a growing peer-to-peer system but a global marketplace now fully capable of exploiting the large scale it has achieved in terms of profitability.

Furthermore, the Q4 2025 Shareholder Letter argues that Airbnb's growth does not rely solely on the number of users already reached, but rather depends primarily on growth that continues to be actively nurtured and built over time. Indeed, those who use it recognize the optimization brought by the platform, especially in the booking process, which is seen as an improvement in search and merchandising and also guarantees more flexible options both in booking itself and in payment, which is processed through increasingly simplified commissions (Airbnb, Inc., 2026).

Despite the platform's positive results, lasting and stable growth is only sustainable if the platform continues to create real value for its users. According to authors Kim, Shin, and So (2022), this can be explained through the concept of actor value formation.

This perspective highlights that just as Airbnb generates value, it can also be destroyed. It emphasizes that to create value, the company must optimize three fundamental phases of the business: information seeking, which occurs before the actual consumption of the service (pre-consumption phase), personal interaction, which occurs during the overnight stay, and the final phase, the feedback phase (post-consumption phase).

The centrality of these three dimensions stems from the fact that they directly impact company performance in terms of factors such as the quality of communication and the value for money, a key aspect of the intermediation process.

These areas are strengthened precisely by the way in which value-generating strategies are implemented, and this can be seen in Airbnb's recent operational measures. Elements such as search processes have been optimized, services such as "Book Now, Pay Later" have been introduced, and new cancellation policies have contributed to increasing the platform's flexibility. Furthermore, reliability has also been significantly strengthened through improved customer service thanks to the automation provided by AI tools, and low-quality listings have

also been significantly reduced, leaving only the most attractive and aligned with customer needs. The value created by Airbnb is therefore given by its role as an active intermediary between the two market forces and thanks to the continuous development and optimization of the various mechanisms that characterize the platform, it is able to ensure an increasingly safe, reliable and attractive experience in the eyes of the consumer (Kim, Shin & So, 2022).

Regarding monetization methods, Airbnb perfectly follows the logic used by all other digital platforms, as it retains a portion of the generated value within the system. The majority of Airbnb's revenue, as shown in its 2025 Form 10-K, comes, after taking into account any refunds, from commissions charged to customers for the service provided by the platform.

Commissions related to actual stays, on the other hand, are calculated as a percentage of the final transaction value. Variations depend primarily on factors such as the booking amount, length of stay, geographic area, and host type.

The fact that Airbnb does not directly manage the accommodation means that the platform acts as an agent, as earnings are reported net, not gross. It assumes no responsibility for inventory or the various final aspects of the contract.

The distinction is subtle but crucial to understanding that Airbnb's revenue stream does not depend on ownership of the accommodations, but rather on the entire management of the property, from the commissions derived from its intermediation to the guaranteed customer support.

It is clear that Airbnb is implementing a strategy aimed at increasing revenues through a dual approach of diversifying monetization methods and simplifying fees. In fact, starting in 2025, commissions will be borne entirely by the host, no longer also by the guest as in the past, further improving the customer experience (Airbnb, Inc., 2026 and Kim, Shin, and So, 2022).

3.4 Airbnb's impact on the tourism industry

Airbnb's impact on the tourism industry is primarily observable in terms of the competition it generates compared to traditional hotel systems. First, what most differentiates the digital platform from hotels is its ability to expand its offering, which occurs more rapidly thanks to the fact that it does so through the addition of new, existing residential accommodations. This allows it to avoid all the factors involved in building a new hotel, such as planning, financial investment, and waiting times for construction to be completed.

The platform's model itself therefore ensures a more flexible response to fluctuations in tourist demand, which consequently exerts greater competitive pressure on traditional accommodation operators.

In fact, Airbnb has brought about a true revolution in the evolution of the tourism sector, establishing itself not only as a new competitor in the sector but also by transforming the operational and economic competitive conditions for hotels (Zervas, Proserpio and Byers, 2017 & Dogru et al., 2017).

Several studies report that this competitive force has had a significant but uneven impact on both the European and global levels. Figure 3.1 analyses three European capitals, Barcelona, London, and Paris, particularly impacted by digitalization in the tourism sector.

It shows that from 2016 to 2019, hotel supply did not experience any significant changes, but remained constant, while Airbnb supply recorded exponential growth in all three cities, more specifically in the non-hotel segment.

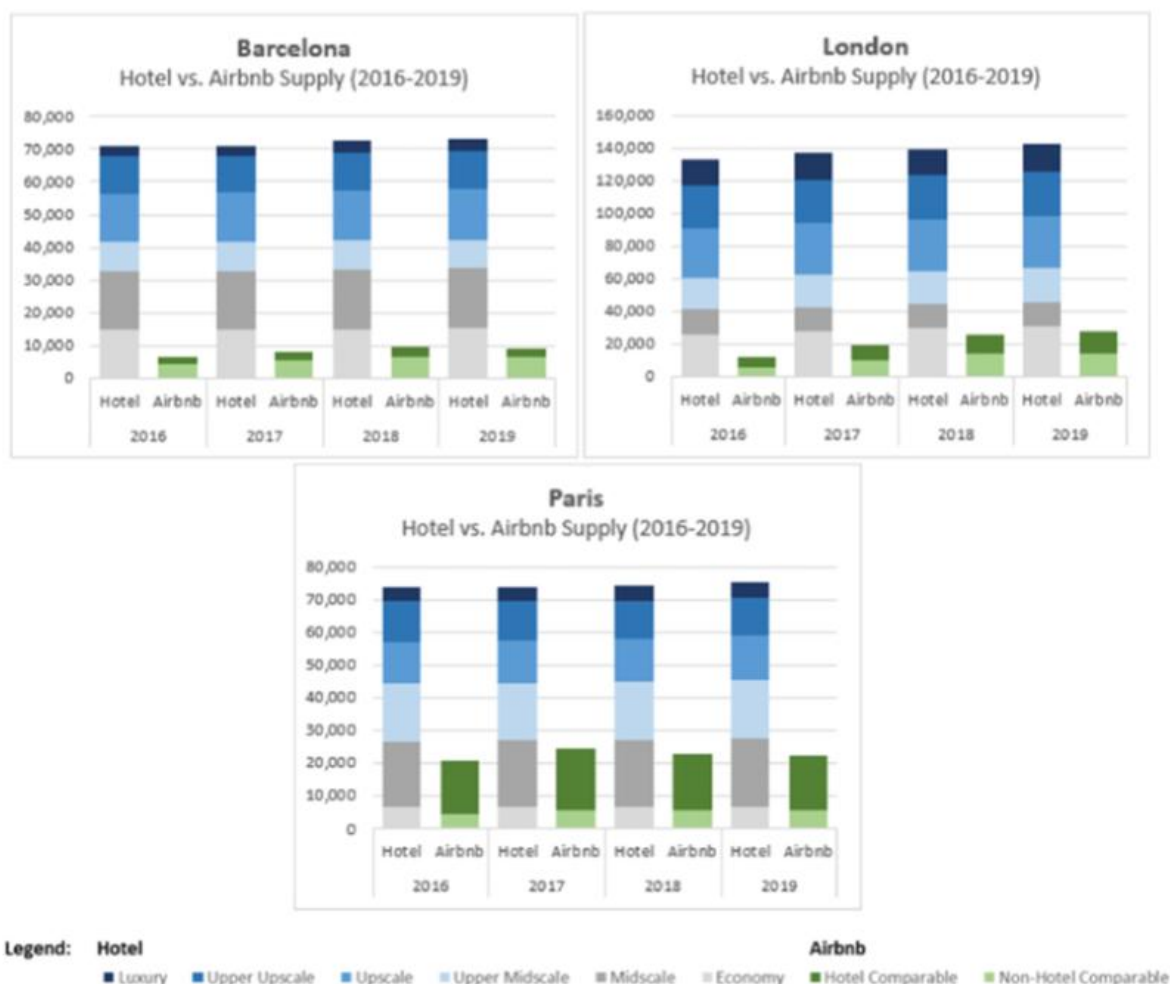


Figure 3.1: Hotel vs. Airbnb supply growth by class (2016–2019).

In this scenario, authors Yoong, Woltering, and Heo highlight that Airbnb's presence has negatively impacted hotels' Revenue Per Available Room (RevPAR) in all three cases. The data shows that a 1,000-unit increase in Airbnb's offerings, compared to hotel offerings, translates into a decrease in RevPAR ranging from 1.87% in London to 8.55% in Barcelona, while the effect of non-comparable units ranges from 1.39% in London to 6.40% in Paris. The importance of this analysis lies not only in the evidence of a negative impact due to the introduction of Airbnb, but above all in the fact that its effect is uneven across hotel categories. For example, the mid-range segment is the one subject to greater competitive pressure, while economy and luxury hotels appear to be less affected. Furthermore, smaller accommodations listed on Airbnb, which can be directly compared to standard hotel listings, produce a greater competitive effect than listings for larger units, which are selected by customers taking a particular type of trip. This evidence suggests that Airbnb's impact on traditional hotel chains depends not only on the scale of its expansion but also on the level of substitutability between its listings and those of hotel rooms (Yoong et al., 2025).



Figure 3.2: Year-over-year changes in Austin hotel prices by price segment

Competitive systems are most evident during periods of particularly high demand. To analyse this phenomenon on a global scale, Figure 3.2 examines five hotel segments, Budget, Economy, Mid-Price, Upscale, and Luxury and analyses how their price changes year-over-year during the period of South by Southwest (SXSW), a very famous festival in Austin, Texas, compared to the rest of the year. These two factors are represented in the graph by the solid line (prices during the festival) and the dotted line (prices throughout the year). As the figure shows, in the early years, especially between 2010 and 2012, the two lines show a marked gap, especially in

the Budget and Economy categories. This indicates that hotels were able to increase prices more easily during periods of high demand like the festival compared to ordinary periods.

Over the years, the price difference between different periods has narrowed significantly, demonstrating that hotels have gradually lost pricing power during the festival. This phenomenon is particularly evident in the low to medium price segments, where substitutability with accommodations offered on Airbnb is higher.

These trends demonstrate that, during periods of peak tourist demand, platforms like Airbnb have significantly eroded a large market share. Thanks to their flexible structure, they can access the market when demand is highest, easily increasing rates. This allows them to reach a greater number of customers in less time than traditional hotels, which are unable to adapt to changing trends as quickly and are being squeezed by digital competition (Mody et al., 2017). Confirming this trend, the Boston case shows how a 1% increase in Airbnb's supply reduced hotel RevPAR by 0.0025% and the average daily rate (ADR) by 0.02%. The impact on occupancy rates, however, was more limited. The data also takes on greater relevance given that Airbnb, in the same period, reported 100% annual growth. These conditions resulted in a reduction in hotel profitability of approximately 2.5%, or approximately 2.7% if we consider only active Airbnb listings.

This demonstrates that, overall, Airbnb had a significant influence not only on hotels' standard performance, but above all on the pricing strategies through which they achieved the highest margins (Dogru et al., 2017).

Considering these studies, what emerges is Airbnb's ability to fully exploit the mechanisms of its platform-based business model. A first factor to highlight is the expansion of the accommodation offering without the need to directly own, build, or manage the properties. A second factor that emerges, as mentioned, is the negative impact that Airbnb's arrival has had on RevPAR and ADR. As a final significant factor, the analysis shows how, thanks to the implementation of premium pricing strategies, the platform has diminished the ability of hotels to capitalize on temporary peaks in demand.

In conclusion, comparing the various hotel segments, it can be stated that Airbnb has impacted them unevenly. Indeed, the most significant impact is seen on the sections representing accommodations with similar characteristics between Airbnb properties and those of standard hotels.

The birth of Airbnb therefore does not simply represent an example of how digital evolution has been introduced into the tourism sector, but is also responsible for a genuine reshaping of the traditional hospitality industry's business model.

3.5 Limits and critical issues

Despite its economic successes and innovative introduction into the tourism sector, Airbnb is still weak in some structural aspects of the platform.

What is certain is the definitive departure from the original model of simply sharing amateur listings, which were published sporadically and temporarily by owners unsure how to fill unused space. Currently, however, the trend is an increase in the publication of professional listings, which have a purely commercial purpose since they are managed by a single host who simultaneously rents out multiple properties on an ongoing basis.

In effect, Airbnb's structure is therefore increasingly taking on the appearance of a fully-fledged commercial activity (Kirchner and Pohl, 2025).

A second significant critical aspect is the complex relationship between Airbnb, public administration, and the urban context. Confirming this trend, Gyódi, Mazur, and Cocola-Gant's study on the Barcelona case highlights a significant intensification of tensions with urban policies regarding the increased demand for short-term rental accommodations. This could in fact weigh on the capacity of residential centres to manage such a huge demand for accommodation.

The main issue that arises is the difficulty for residents in finding new housing due to the fact that many residential properties have been converted to tourism, contributing to increased competitive pressure in the real estate market.

This scenario has not only impacted the sector economically, but above all has had a considerable social and territorial impact, altered the attractiveness of the most popular neighbourhoods and increased conflicts between residents, tourists, and local governments.

The study also highlights how regulatory interventions could significantly reduce illegal listings, listings published on Airbnb that do not comply with local regulations, and a restriction on tourist accommodations replacing residential ones. The evidence reported, however, emphasizes that this can only be achieved effectively if regulations are supported by effective and ongoing enforcement tools.

It can therefore be deduced that even from an institutional perspective, Airbnb presents limitations, as its expansion capacity often exceeds the public's capacity to efficiently supervise and govern, and these risks compromising the delicate balance of the real estate market and the fulfilment of urban sustainability goals (Gyódi, Mazur, & Cocola-Gant, 2025).

Another critical issue concerns issues such as trust and impartiality on the platform. Despite Airbnb's attempts to limit instances of racial discrimination, such as by delaying the time when hosts' profile photos were visible, the overall impact of these changes is limited. The study finds a negligible reduction in the price gap between Black and white hosts and excludes a reduction greater than 2% with a 95% confidence level, demonstrating that bias has not been substantially eliminated.

Airbnb's trust and reputation mechanisms still represent a limitation for the platform, as, while fundamental to its functioning, they do not yet provide a complete guarantee of fairness and neutrality (Mohammed, 2025).

Overall, although Airbnb represents an emblematic case for the evolution of digitalization in the tourism sector, it still presents evident critical issues related to the rapid expansion of the platform mechanism. The progressive commercialized structural development, tensions with urban regulation, and the persistence of problems related to discrimination and governance demonstrate that the success of the platform does not necessarily coincide with a sustainable balance on a social, territorial and institutional level (Kirchner & Pohl, 2025).

Conclusion

The thesis aimed to demonstrate the impact of digital integration on the tourism sector, focusing on the redefinition of market access and the fact that value is generated by the streamlining of intermediation enabled by platforms, elements that have consequently influenced the competitive and structural aspects of the sector. Indeed, the Airbnb case demonstrates how digitalization has profoundly revolutionized the basic mechanisms that regulate tourism.

Factors such as the ways in which travellers gather information, compare alternatives, make bookings, and evaluate the overall experience have contributed most to this change, simultaneously reconfiguring the sector's strategic positioning.

The theoretical evidence reported in the first chapter highlighted that the strength of the platform system no longer lies in the ownership of physical assets, but rather in optimizing interactions between different user groups. Competitive advantage is effectively achieved through intermediation, network effects, scalability, and the ability to capture value through the repeated interconnections between different market forces. What characterizes this new digital business model and differentiates it from traditional models is its ability to more ably meet a more fragmented demand, expand rapidly, and optimize its offering over time through continuous analysis of data and feedback.

The second chapter highlighted how these systems have become an integral part of the tourism sector's operations. The use of digital platforms has led to a reduction in information inefficiencies, expanded access to tourism services, and strengthened demand for consumption patterns that increasingly emphasize flexibility and customization.

Supporting this shift are short-term accommodation booking data recorded by the most well-known tourism platforms in the European Union. 951.6 million overnight stays were reported in 2025 alone, confirming that the transformation brought about by digital platforms is no longer confined to a peripheral context but has impacted the overall structure of the sector.

Airbnb's analysis underscores the now advanced integration of digital evolution in tourism, highlighting how the platform is capable of monetizing the value generated by the efficient intermediation of supply and demand, also thanks to the introduction of key elements to increase customer reliability and security, such as rankings and ad-hoc recommendations for specific users.

The platform is now well-established in the digital tourism sector, and this is further confirmed by its 2025 revenue figures, which recorded a 12.2% increase.

Airbnb owes its success to its ability to rapidly expand its offerings and to its efficient use of existing accommodations, but what makes it highly competitive is its marked substitutability, especially for accommodations that can be compared to traditional hotels in terms of price and size.

Economically speaking, as demonstrated by economic indicators reporting data on the performance of traditional hotel properties such as RevPAR and ADR, Airbnb has eroded a large portion of their earnings, particularly during periods of peak tourist demand.

This trend also weighs heavily on a purely European perspective, as it is estimated that in 2024, the total number of overnight stays in hotels and similar properties will represent 62.8% of all bookings in the European Union.

What distinguishes Airbnb from traditional systems is its readiness to adapt to changing users' habits, as consumers, increasingly using digital products, expect increasingly higher standards of personalized listings and satisfaction of specific needs.

Furthermore, issues such as conflicts arising from housing pressure, urban planning regulations, local governance, and the persistence of prejudices related to factors such as reputation and trust, highlight how the implementation of intermediation does not always lead to a fair or socially balanced outcome.

Data for the entire tourism sector for 2025 confirms the increasing importance of monitoring these dynamics, as it was reported that total tourists this year totalled 1.52 billion. This demonstrates how much this sector is expanding and how competitive pressures are strengthening in both traditional and non-traditional sectors.

When discussing digital development, it is therefore important to also consider territorial, social, and institutional aspects, and not limit ourselves to analysing elements primarily related to efficiency and growth.

In conclusion, it can be said that the Airbnb case perfectly embodies the two facets of platformization: on the one hand, it simplifies decision-making processes, ensuring greater scalability; on the other, it intensifies the sector's competitiveness and urban tensions, contributing to the generation of new forms of imbalance.

Considering a long-term future perspective and the data relating to Airbnb's expected growth in 2026, these trends are expected to strengthen even further over time.

Therefore, the future of the sector will depend not only on the ability of companies to innovate, but also, on the ability of institutions and local communities to support these transformations in a balanced and sustainable manner, consistent with local needs.

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