The Metaverse in Tourism and the Airline Industry

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Abstract

This paper aims to analyze the potential of using the Metaverse in the Tourism Industry, and in particular the Airline industry, by providing some examples of what the industry is already doing, specifically in the Marketing, Customer Service, and Sales areas.

Keywords: Metaverse, Customer, Experience, Virtual, Reality, Marketing, Airlines, Sales.

Abbreviations

- B2B - Business to Business
- AI - Artificial Intelligence
- LCC – Low-Cost Carriers
- NFTs – Non-Fungible Tokens
- PNR – Passenger Name Record
- VR - Virtual Reality

1. Introduction

Although there was already some reference to the term "Metaverse" at the beginning of the 20th century, in a short story entitled Machine Stops by E. M. Foster, it was only in 1992 that it gained relevance through the science fiction novel Snow Crash, written by Stephenson. The final push and its wider dissemination are more recent, with Facebook rebranding itself as Meta in 2021, drawing attention to this new reality and with Mark Zuckerberg creating his own avatar.

We can define Metaverse as a 3D virtual world that seeks to replicate the real world using the most recent technologies, such as Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and Extended Reality (XR) based, of course, on the potential of the Internet. In this collective virtual space, it is possible to create an avatar, chat with people, play games, and buy virtual items, among many other possibilities. In essence, the Metaverse is a parallel reality where human beings can work, play, and communicate, a world where any experience becomes possible and accessible.

To discuss the Metaverse is also to discuss NFT which, in essence, is a token created on a blockchain platform that aims to represent an asset considered unique, for example, a work of art, a collectible item, or even a virtual property.

2. How to explore the Metaverse

The matrix below, published in 2022 in the Journal of Hospitality Marketing & Management, attempts to translate and systematize the potential the Metaverse has to create experiences.
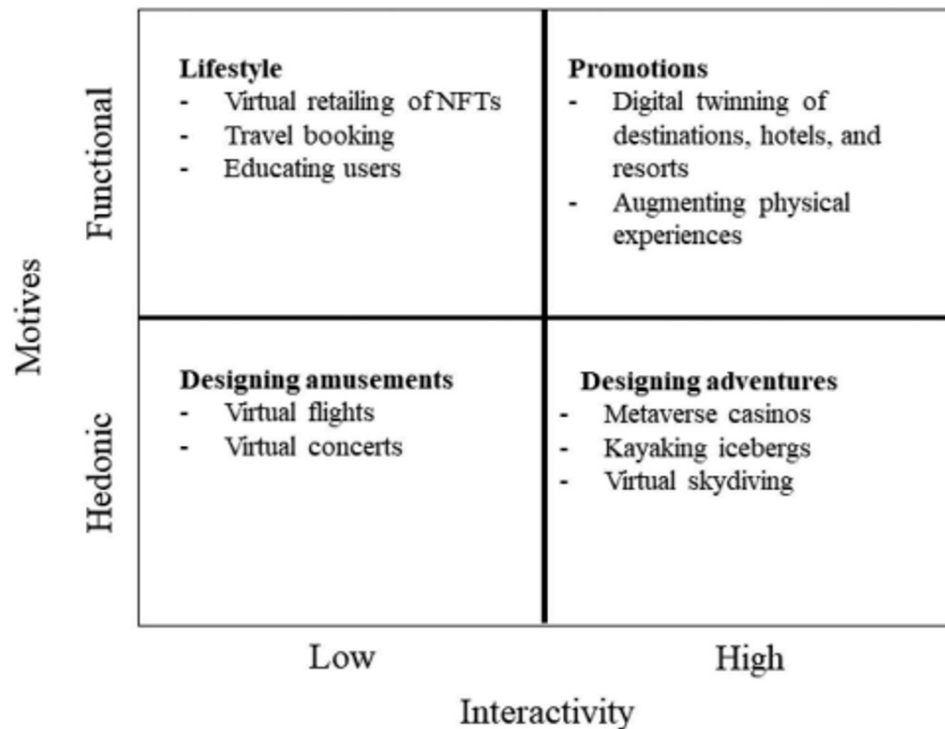
Figure 1. Creating Metaverse Experiences
Source: (Malodia, Dhir, & Gursoy, 2022)

This matrix combines the degree of interactivity, which can range from relatively low interactivity to very intense interactivity, with the motivation of those who explore the Metaverse, which can range from functional (utilitarian) purposes to more in the realm of sensations. The major challenge for companies, particularly those in the Marketing sector, will be their ability to innovate and create new means of engagement in content and creativity.

3. Metaverse applications

Based on the bibliography that already exists on this subject, I believe that the Metaverse can help the Tourism Industry in two strategic areas:

3.1. Marketing

In this area, the Metaverse allows for an improved experience through an immersive process with the brand and its products, enhancing the relationship with the Customer. Creating stimulating and relevant experiences for consumers is essential to differentiate offers in competitive markets (Schmitt, 2011).

Airlines, hotels, and tourist destinations can develop unique, immersive experiences that appeal to their customers' multiple senses and increase brand loyalty. With travel, for instance, the Metaverse allows you to create a world where you can travel without restrictions whenever and wherever you want. You can virtually experience hotel rooms, cuisine,

tours, and conferences in the hospitality industry. And, the development of Avatars as a marketing tool promotes a more natural and realistic interaction with the Customer.

This deeper interaction will also result in a more extensive and accurate gathering of client data for future one-to-one marketing initiatives, as well as offering the possibility of better service. In aviation, for instance, personalized services based on each customer's profile, such as favorite destinations, preferred seats on the plane, or typical meal option. In hotels, for example, the creation of virtual concierges capable of anticipating customer needs and making recommendations before they are requested.

The Metaverse will also have a significant impact on social media marketing since Customers' access to products and services in this new context generates more emotion and a need to share memories and lived experiences (Lemos, 2022). A CommerceNext study (Hamilton, 2022) concluded that about 60% of respondents buy items promoted on social networks, so this type of communication has a crucial relevance.

Still within Marketing, the potential of the Metaverse can help develop Loyalty Programs, making them more attractive through the creation of online communities, with which they can interact, that provide personalized offers, online events, access to virtual lounges, games, privileged offers in the purchase of NFTs, for example.

3.2. Sales

As airline ticket offices do not exist anymore, the Metaverse might enable the development of virtual ticket counters that would complement the existing websites and provide a more personable experience by simulating in-person service. Additionally, it might make it possible to create avatars that mimic the current Key Account Managers, increasing the number of customers that can be followed, especially in B2B (businesses and travel agencies).

We can postulate that the Metaverse can facilitate the purchasing process by allowing Customers to save time and money when planning their trips, as they can anticipate choices through the experience the Metaverse provides. It is also, in fact, a very effective channel to communicate promotions, discounts, and all kinds of useful information for the purchase decision process due to the engagement it creates between the brand and the Customer. "Metaverse enables businesses to develop natural relationships with clients that weren't feasible with earlier forms of technology" (Consultancy-me.com, 2023).

Based on the above and a study by the consulting company BSX, we can conclude that the Metaverse can contribute to an increase in sales volume and the willingness of consumers to pay a higher price by reducing service ambiguity and setting clear expectations. In short, a quantity and quality effect generate more revenue.

4. The industries that invest the most in the Metaverse

In the table below, we can see that the application of Metaverse in the Tourism industry is still in its infancy, though we already have some practical examples of its use. It is estimated that the Metaverse market in the travel and Tourism

sector may reach US$188.24 billion in 2026 (Technavio, 2022).
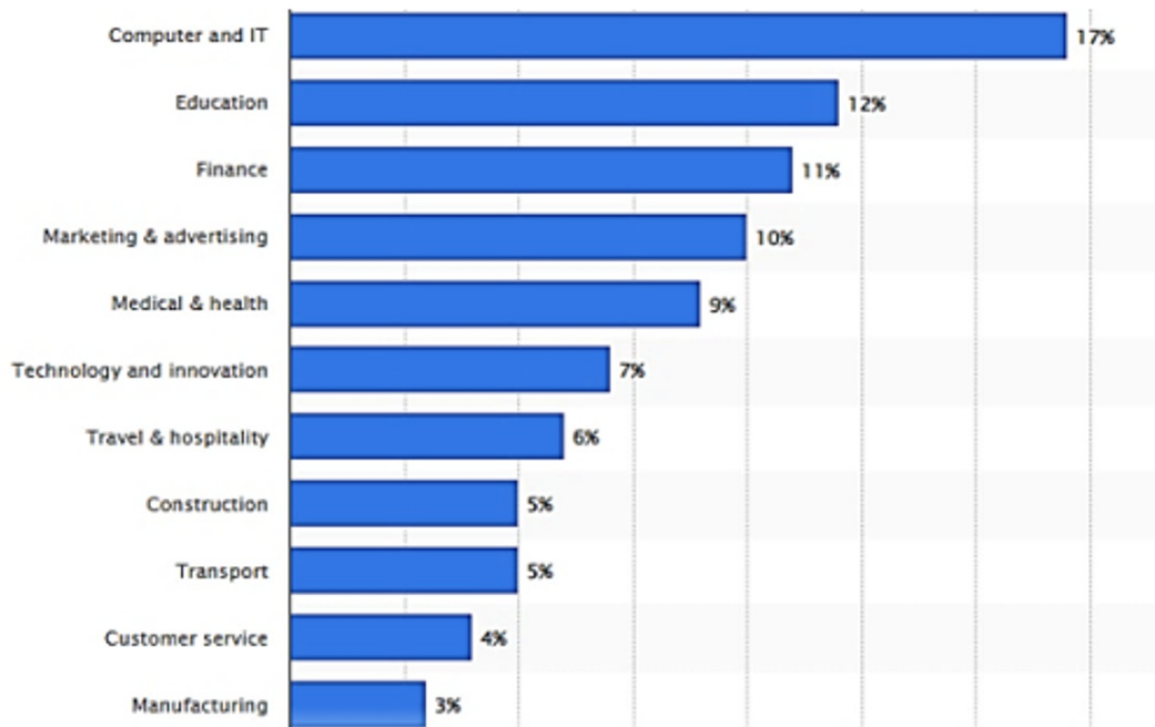
Figure 2. Metaverse application by activity sector

Source: (Statista)

It is clear that the Metaverse will never replace traditional tourism; however, it will definitely contribute to improving the customer experience due to the potential it holds for providing experiences to both those who travel and those who, for various reasons, cannot travel. "Metaverse shouldn't substitute the real world or the in-person connections that make us human and bring us together. Instead it should complement the great things we do and expand our range of experiences" (Saraiva-Stewart, 2023)

As is visible in the chart below, travel is in the top 3 benefits, which demonstrates the potential of applying this technology to this sector.
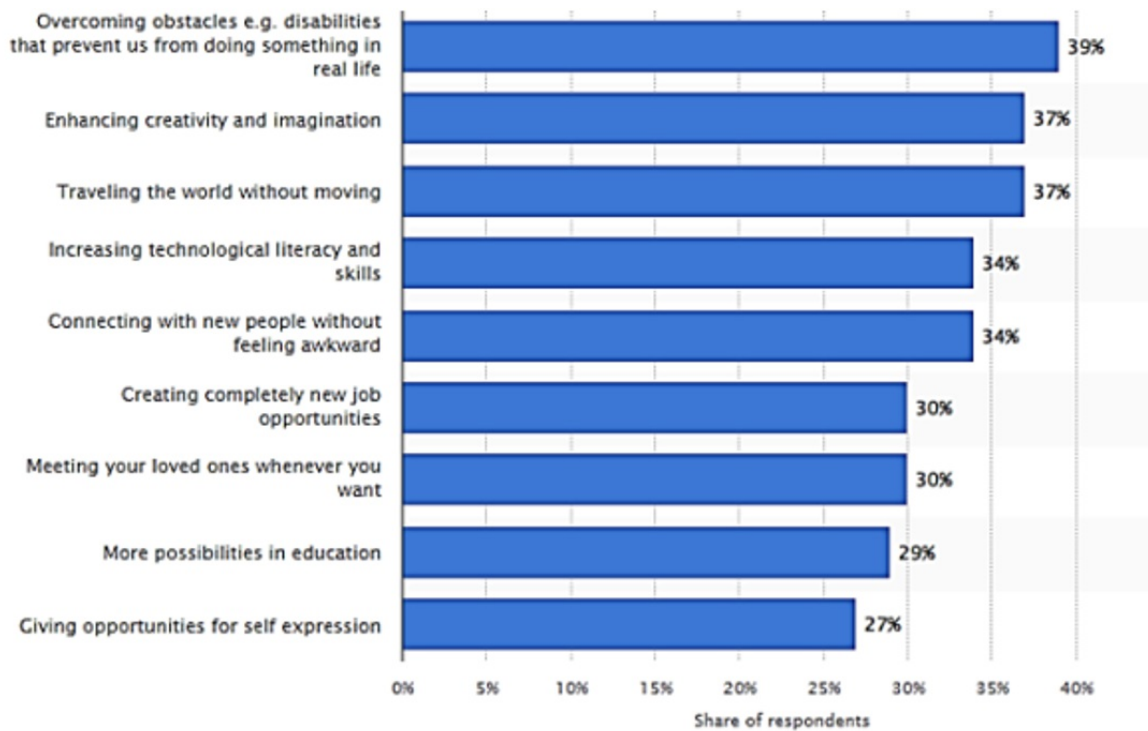
Figure 2. The main benefits of Metaverse in 2021.

Source: (Statista)

Therefore, we can say that the Metaverse can make the impossible a reality, for example, explore a city or experience an airline's business class without leaving home.

5. Case Studies in the Industry

In the Airline Industry, we already have some examples of how this new trend can be applied.

Qatar, a pioneer in this new world, launched a program called Qverse (www.qatarairways.com/Qverse), with the first Metahuman crew member "Sama" which means "Sky" in Arabic.

"Sama" The first Metaverse flight attendant, from Qatar Airways

This program allows the Customer to live a virtual experience in several phases of his journey:

- At the airport, Check-in and Boarding
- In the company's First Class, where the Customer can interact with the crew
- In Business Class and Economy Class, see and try out the seats

Emirates is preparing to launch NFTs and Metaverse experiences. Part of its cabin crew training is already taking place in the Metaverse, using virtual passengers.

Etihad has also announced the launch of its first collection of NFTs, called "EY-ZERO1". This collection features ten highly detailed 3D aircraft models, each with a unique paint job of Etihad Airways' Boeing 787 Dreamliner. A total of 2003 airplanes in limited edition, symbolizing the year Etihad Airways was founded.

Vueling is the first airline to announce that it will use the Metaverse as a sales channel by the end of 2023, allowing trip and PNR visualization. In line with what other airlines are doing, it will also have a mechanism to show the carbon footprint, with an offset option.

Air Baltic launched the "Planies" in May 2022, a collection of 10,000 NFTs linked to its loyalty program, airBaltic Club.
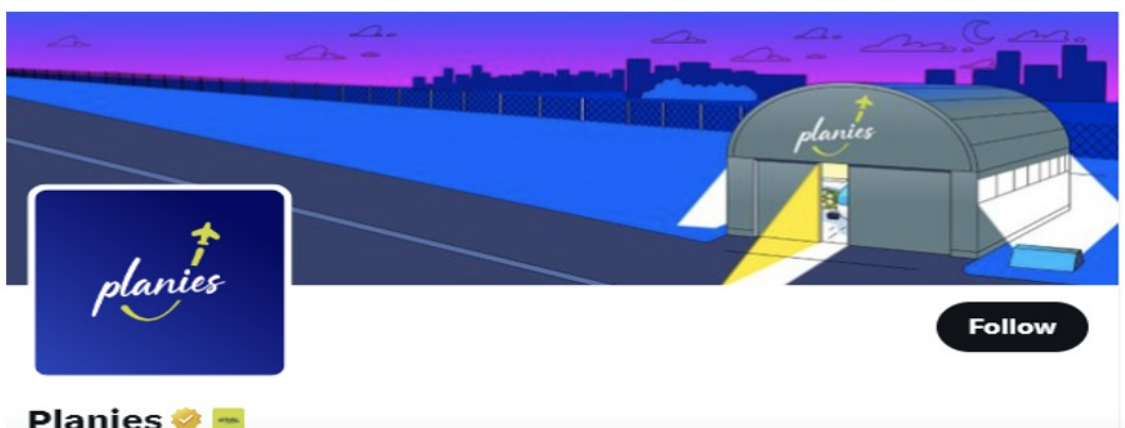
You could say that technology is in Air Baltic's DNA. In 2014, it was the first company to accept cryptocurrencies (Bitcoin and others) to purchase tickets. It continues to accept various cryptocurrencies as a form of payment until today. In 2021, it became the first company in the world to issue its own NFTs. It has already released nine editions of the so-called airBaltic City Collection.

Air Europa has created the world's first NFT airline tickets. With this initiative, Air Europa has one more sales channel and payment method for its customers. The purchased NFTicket is stored in a wallet and accessible through any device. At check-in, the traveler presents the NFTicket, and a matching flight ticket is issued. Each NFTicket includes a flight to Miami in business class on November 29, the first flight in history traded via blockchain.

Tokyo-based **First Airlines** uses virtual reality technology to offer their customers a "real" travel experience without leaving the ground. They designed a room similar to an airplane interior, with actual flight attendants and "onboard" services, offering an innovative experience to their Customers. They have already launched flights to Paris, Rome, New York, and Hawaii, achieving 100% occupancy for 62 USD, and as a result of this success, they hope to add domestic flights soon.

In the aircraft manufacturing industry, **Airbus and Boeing** are also utilizing the potential of the Metaverse by creating digital replicas of their aircraft and using them to perform tests and simulations. They will therefore be able to collect data and results without accumulating hours of flight time in a physical aircraft, saving costs, and reducing safety risks for the test team while speeding up aircraft production.

As far as airports are concerned, I would highlight **Singapore's Shanghai Airport,** which offers a virtual journey through the various areas of this space.

Changi Airport Group has entered the metaverse with the launch of ChangiVerse. This aims to revolutionise the online airport experience, engaging travellers and "serving them better through innovation and experimentation".

Source: (FutureTravelExperience, 2022/2023)

We also have the example of **Istanbul Airport,** which, in April 2023, launched an initiative linked to World Autism Awareness Day. They hosted a workshop for autistic children, who created paintings that were subsequently on exhibit at the airport. These "works of art" were turned into NFTs, and their sales proceeds were donated to Turkish autism foundations.

The Airline Operator, **Thomas Cook,** launched a virtual experience in the Manhattan skyscrapers, https://visualise.com/case-study/thomas-cook-virtual-holiday.

The hotel industry is also starting this process. In Singapore, **Millennium Hotels** was one of the first hotel chains to use the Metaverse by creating the M Social Hotel, which opened on May 5, 2022, on a platform called Decentraland (a three-dimensional virtual platform where you can buy or sell plots of land). The hotel is 100% virtual, where, for example, in the lobby, an avatar welcomes customers and gives them a tour.

Premier Inn has placed maps in the rooms, which guests can point to with their mobile devices and, using augmented reality technology, be informed about nearby attractions.

We also have the case of the **Marriott hotels** that have produced three unique digital artworks in NFT format that serve as tickets to the upcoming Marriott Metaverse.

6. Conclusion

The advantages of the Metaverse in Marketing, Sales, and Customer Relations are evident due to its ability to strengthen

the emotional bond between the Customer and the Brand. There are, however, certain significant precautions to consider.

The first is the need for data protection regulations that contemplate this new reality and carry out rigorous control, as the Metaverse will need to extract a large amount of personal data to benefit organizations. Further alerts are related to the influence on consumers' health, namely in children, and the still limited access to this type of technology. These should therefore be points to be taken into account by brands (Marr, 2022).

In the airline industry, more traditional airlines must exert considerable effort to prevent LCCs from taking the lead, given their higher agility and propensity for technological innovation.

The promise of the Metaverse for user engagement, entertainment, digital marketing, and virtual commerce using NFTs and cryptocurrencies is a great opportunity for companies. According to Schenker (2019), digital platforms will account for 30% of global economic activity by 2025. Gartner (2022) predicts that 25% of people will spend at least an hour a day on the Metaverse in 2026, i.e., in just three years.

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