AIRPORTS AND TERRITORIAL RESTRUCTURING

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Abstract

The airport infrastructure has become a crucial part of modern transportation systems, serving not only as a gateway for air travel but also as a hub for economic development, job creation, and regional growth. As such, airports have multiple functions, some of which are direct, such as providing air transportation services, while others are indirect, such as generating economic activity and enhancing accessibility.

This paper aims to provide a comprehensive analysis of the existing literature on the topic of airport infrastructure and its impact on urban development. By focusing on three case studies of successful airport cities and aerotropolis, namely Seoul, Dallas, and Amsterdam, this paper will explore how airports can serve as catalysts for urbanization and economic growth. These case studies will also shed light on how airport development can influence urban planning and the creation of new urban forms: airport cities and aerotropolis.

These airport-centered developments, creating new opportunities for businesses and individuals, attracting new investments, generating employment, and contributing to the growth of regional economies, have become a trend in recent years. Airports are no longer seen solely as transportation hubs but also as economic engines that can significantly contribute to the local and regional economy. By analyzing the existing literature and case studies, this paper will provide insights into how airport infrastructure can influence urbanization and economic growth, but also how it can affect environmental sustainability and accessibility. In conclusion, this paper highlights the importance of studying airport infrastructure and its impact on urban development, as it has the potential to shape the future of our cities and economies.

Keywords: Airports; Geography of transport, Aerotropolis, Airport city.

1. Introduction

The paper aims to analyze the impact of transportation demand on the development of territories surrounding airports. The development of aviation has resulted in airports becoming new dynamic centers of economic activity that have incorporated various services and activities, both within passenger terminals and in the surrounding areas, thus transforming the territory.

Different concepts addressing this type of development can be found in the literature; this dissertation will focus on the concepts of "airport city" and "aerotropolis". The airport city and aerotropolis models are claimed by some authors to have become the norm for the strategic development of major hub airports in the 21st century.

These new airport development models imply significant territorial, social, and economic impacts, as airports' influence extends well beyond their boundaries. In this process, many airport-related areas have acquired the characteristics of metropolitan central business districts, emerging as new hubs of development.

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The paper then examines these forms of spatial restructuring around airports, contributing to the literature on this matter, which remains scarce and often presented from a semi-scientific perspective, sometimes even for publicity purposes.
Specifically, it aims to answer the following research questions:
RQ1. How has the need for mobility influenced the emergence of new urban forms around airports?
RQ2. What are the factors that have driven this need for development?
The paper follows a specific structure. Section 2 presents the methodology used in the research. Section 3 focuses on analyzing the demand for transportation and the resulting needs. Section 4 reviews the literature by examining the changes that airports have brought about in the surrounding territory. Section 5 is dedicated to case studies. Finally, section 6 presents conclusions and potential areas for future research

2. Materials and Methods

The paper initially highlights the importance of transportation in connecting people and places. The literature review then examines the relationship between airports and territorial development.
To gain insight into the impact of this relationship, the paper adopts a multiple case study approach, analyzing Seoul, Dallas, and Amsterdam airports (Yin 2014; Pucher and Renne, 2003).

3. Transport demand

In order to provide a definition of transport, it is necessary to view it not as a final purpose but as a derived demand from people's natural propensity to interact with each other, the places they live, or the places they visit (Button and Vega, 2010).
The term "transportation" refers to the transfer, which involves the movement of people or goods from one place to another, either with or without vehicles.
Therefore, "transportation" can also be defined as the act by which the need for the mobility of people and goods is satisfied, ensuring the mobility of production factors and products as well. This facilitates the intensification of exchanges and social interactions (the social function of transportation). It constitutes one of the essential requirements for the growth and development of the economy and the progress of civilization. In fact, the efficiency of communication routes and the organization of transportation within a nation is a significant indicator of its level of civilization.
The concept of derived demand has been applied to transport since the early decades of the 1900s, with the interest of forecasting the demand for transport based on land use schemes, particularly within metropolitan areas (Hensher, 2007).
While it is true that people travel to reach a destination, the best way to predict transport demand is to examine the land use pattern of a given area, defining the origin and destination of these trips. This approach emphasizes that mobility should be considered not as a final demand but as an intermediate good or service, offered to meet a direct demand for accessibility to places and services (Mokhtarian and Salomon, 2001).
The demand for transportation, although understood as a relative and not an absolute concept, is primarily motivated by the desire to reach a given destination, which can be a specific place located in a given location or an indeterminate place without well-defined physical boundaries (Banister, 2008).
From this perspective, the transportation system represents an intermediate service with respect to a higher purpose. Travelers are not automatically and exclusively guided to their destination but are given the opportunity to construct their own journey based on the places of departure and arrival, thus putting mobility at the service of places (Hensher and Button, 2001).
It is important to highlight that demand for transportation, however, cannot be merely derived. Although cases in which movement is considered an end in itself are extremely rare, travel is normally undertaken to take advantage of a series of activities often separated from each other spatially (Button and Vega, 2010).

Therefore, it is necessary to consider the demand for transport as a derived demand, but with rare exceptions. Sometimes it is true that time spent traveling can have a positive value to someone, and in some cases, the destination may be the product of the desire to make a trip, but this represents a very small proportion of the cases and is insufficient to refute the theory (Urry, 2002).
In fact, there are a number of activities and trips that are made without the traveler having a specific destination in mind; human beings are, by nature, inclined to move and explore (Levinson and Krizek, 2008).
Similarly, there are situations where a greater cost or longer time spent traveling is justified by the realization of benefits in other areas. For example, the choice to travel a scenic route rather than the shorter one is made to better appreciate the place where one is transiting (Geurs and Van Wee, 2004).
Nevertheless, even in these cases, accessibility, intended as the ability to reach a destination through a combination of mobility and proximity, only increases the value of these activities.
The essence of accessibility lies precisely in the ability to reach a place, not in shortening the journey, as is often misjudged. An area that offers multiple destinations and places to move and explore is more attractive than one without places of interest or isolated from its surroundings (Condeço-Melhorado et al., 2004).
However, it remains true that, in the vast majority of cases, time spent traveling is viewed as a cost rather than a benefit, and a decrease in travel time is generally preferred to an increase in it. In fact, travel presupposes a number of negative externalities to be considered, such as road congestion, psychological stress of the driver, noise and air pollution, etc., which travelers decide to deal with if they have the opportunity to interact with their destination and receive compensatory benefits.
These benefits may be evident in the choice of destination or origin, during the journey itself, or in the manner in which it is accomplished.
However, even if allocating investment to expedite travel allows people to be more free, for example, in choosing the location of their residence or vacation destination, and provides them with great mobility to move wherever they want at any time, this policy also brings consequences for society in terms of environmental sustainability and accessibility (Wegener, 1991; Fu et al., 2010; Urry, 2002).

4. Literature review - Accessibility, airport city and aerotropolis

Accessibility refers to the capacity of a particular region, characterized by residential settlements and economic activities, to interact effectively with other territories (Scott, 1996).
When we talk about accessibility to a place, we mean the ease with which a specific geographical site can be reached, taking into account various factors such as connectivity infrastructure (roads, parking spaces, access points to public transport networks, etc.) and the barriers or spatial obstacles that shape the overall layout of the place and its surroundings. Thus, the role and development of transportation play a central role in this context (Rodrigue et al., 2013).
The continuous evolution of transportation means has significantly enhanced accessibility. This improvement can be measured by the level of connectivity offered to the population, enabling easier access to employment opportunities, education, healthcare, leisure activities, and more (Farrington, 2007).
This aspect plays a crucial role in the growth and development of an area and its residents, ensuring a fair distribution of opportunities. Therefore, the focus lies on establishing minimum service levels that ensure well-connected peripheral areas and appropriate transportation options to meet the demand in densely urbanized regions.
The subject is closely linked to the so-called "right to mobility," which, though lacking a strictly legal foundation, is grounded in a broader sociological and social concept. Presently, it serves as a fundamental reference point in the formulation of transport policies, not only in urban areas but also beyond (Preston and Rajé, 2007).
In this study on accessibility in the modern world, it is crucial to focus on aviation, considering the significant impact of airline deregulation, the liberalization of air transport routes, and the continuous

rise in air transport demand. These factors, along with the liberalization of airports, have led to decisive changes in the industry, mobility, and accessibility (de Andreis, 2023). The landscape has seen the emergence of new airlines, the implementation of new operating plans, aggressive business strategies, and the adoption of new organizational schemes, replacing the old ones. Furthermore, there has been a construction of new airports, expansion of existing ones, and the development of multi-airport systems (Forsyth et al., 2004).

Airports play a pivotal role as key catalysts for urban growth and economic development, particularly in an era of rapid global urbanization. Beyond their evident global economic functions, the multifaceted connectivity and localized impacts of air transport infrastructure position them at the very core of city-regional politics and planning (Addie, 2014).

Over time, the very functions of airports have transformed, just as cities have evolved. Historically, airports were considered primarily as landing sites for aircraft, control towers, and facilities for communication and transportation.

Today, this traditional model is being replaced by the concept of "airport cities," which assumes that, in addition to their aviation infrastructure and services, airports also offer additional services unrelated to aviation. These services serve as a source of revenue for the airport and add to its attractiveness for people (Sassen, 2019). Airports have become dynamic centers of economic activity, incorporating various commercial services and businesses, both within passenger terminals and on their landside areas.

Through this process, airports have taken on characteristics resembling metropolitan central business districts and have established themselves as new regional development poles known as "airport cities" and "aerotropolises" (Gosling et al., 2013).

With the development of aviation, airports have indeed become the hubs for cargo and people, undergoing revolutionary changes in their operations and strategies (Rodrigue et al., 2013).

In the early 1930s, airports started to be seen as analogous to railway stations - specialized components of urban transportation. Ideally located at a higher elevation than the surrounding areas to avoid obstacles and away from commercial districts due to significant externalities (Krasner, 2010). After World War II, airports evolved from small components of intra-metropolitan transportation systems to essential elements of national infrastructure, playing a crucial role in transforming cities from industrial to postindustrial forms during the suburban decentralization period of the 1940s (U.S. Government Printing Office, 1952). However, in the 1950s, despite recognizing the significant potential of aviation in national development, concerns about airports arose at both local and national levels. There was a belief that the physical proximity of airports to urban areas was not vital, and future development would fall under some form of metropolitan government (Meier, 1974).

In 1974, Meier, an advocate for sustainable development, observed that airports served as new suburban centers connecting various actors, such as manufacturers and suppliers, companies and customers (Urry, 2007). At the beginning of the 20th century, major airports were seen as representatives of a network society, where the evolution of multimodal transportation and multifunctional hubs highlighted their role as agents of globalization (Doganis, 2006).

Traditionally, airports were considered as infrastructures where aircraft could operate, and goods and people could move to satisfy the basic need for national mobility in a highly regulated aviation industry. However, since the 1990s, new liberalization policies around the world have made the industry more competitive, fundamentally transforming the perception and functions of airport infrastructure (Graham, 2010; Freestone, 2009).

Airports have evolved from transportation hubs to centers fostering the growth of urban areas and regional economies, leading to the spontaneous development of new urban forms in the surrounding areas (Button, 2011). This development has significant economic impacts on the surrounding areas, with airport terminals functioning as commercial centers and business and leisure areas.

Consequently, other economic entities have emerged, such as hotels, office complexes, logistics centers, and trade areas in close proximity to the airport terminals. Additionally, airports generate revenue from ancillary activities such as advertising and parking fees (Graham, 2010).

Financial analyses of airport budgets have shown that airports earn more revenue from additional sources, such as taxes, airport and passenger traffic control service fees, than from air services alone. These results provide an incentive for the development of airport cities in and around the airport. Such developments are significant on an international scale, as airports have evolved into engines of spatial development and economic incubators that can influence the labor market (Kasarda, 2011a).

This new urban form must consider both risks and costs from economic, environmental, and cultural perspectives. While economic development showcases the success of mega-airports, it also presents planning challenges, especially related to sustainability (Button, 2011).

The rethinking of airports and their surrounding areas had already emerged in the late 20th century in the United States, creating substantial impacts on both the movement of people and freight and developing the concept of airport cities (Kasarda, 2011b).

Currently, several areas worldwide can be classified as part of this category, and they are not just the most important passenger traffic hubs but also major cargo shipping hubs.

The economic impact of airport infrastructure extends beyond its immediate surroundings and has a significant positive effect on the local economy. Properly sized and interconnected airport terminals can generate employment, added value, and increase GDP (Brueckner, 2003).

This new urban form should be viewed as a contemporary model that aligns with metropolitan development trends, driven by the need to provide better job opportunities, improved quality of life, and enhanced accessibility in response to suburban depopulation. This has led metropolises to become some of the most populated areas in the world.

As metropolises continue to grow and develop, they require increasingly efficient transportation infrastructure, often resulting in the transformation of areas near airports into what are known as airport cities. These territories serve the purpose of supporting and benefiting from airport development and are situated within the airport's boundaries, encompassing both airport and on-airport businesses. This trend is driven by a strong correlation between metropolitan growth and the aviation industry (Doganis, 2010).

To create a functional and seamless connection between air travel and urban living, the concept of an airport city integrates an airport with its surrounding area into a single urban environment. These cities serve as vital hubs for international commerce and tourism, attracting businesses and visitors from around the world (Brueckner, 2003).

The concept of airport cities aims to harness the economic potential of airports and their surrounding areas. The objective is to create dynamic and functional urban centers that attract more businesses, increase passenger traffic, generate employment opportunities, and promote the development of new industries. These cities often offer a wide range of amenities, including hotels, restaurants, shopping centers, and entertainment facilities, while also being well-connected with excellent transport links to facilitate easy travel for passengers (Burghouwt et al., 2016).

Airport cities offer various advantages, including their potential to attract international businesses seeking access to global markets. These cities have business parks and office buildings tailored to the needs of international companies, often providing incentives and benefits to attract investment.

Additionally, airport cities can promote tourism by serving as gateways to nearby cultural and natural attractions, leading to a boost in the local economy.

Typically, the development of airport cities focuses on the immediate surroundings of the airport, emphasizing the construction of hotels, offices, and commercial buildings (Graham and Papatheodorou, 2015).

The concept of airport cities has been of interest since the 1970s when it first appeared in the United States. Initially, it referred to the development of industrial and business parks in the vicinity of airfields. However, over time, the term has come to encompass the growth of aeronautical and non-aeronautical land developments at airports worldwide (Graham, 2023; Appold and Kasarda, 2013).

The idea of the airport city has been acknowledged by some experts in urban planning and architecture as a new urban form, while others have not fully accepted it as having urban characteristics. Nevertheless, the concept has evolved over time and is now recognized as an important driver of economic growth and development. Regardless of debates on its classification as a new urban form, there is no denying the impact of airport cities on the surrounding areas and the economy as a whole (Schaafsma, 2014).

The airport city has emerged as a planned and integrated real estate development between cities and airports, driven by interactions between global flows and local conditions. It involves linear urban development occurring alongside major surface infrastructure in previously underdeveloped areas between airports and the major cities they serve.

This new urban form lies at the core of the aerotropolis, also known as the airport economic region, a growth model that focuses on building an entire city or urban area around an airport, encompassing all airport-related developments (Aguiar Peneda et al., 2010). The aerotropolis acts as a hub of economic growth, competitiveness, and development, centering its economy on the airport, becoming the community's economic engine.

The concept of the aerotropolis seeks to capitalize on the economic benefits of airports and create a dynamic urban environment that attracts businesses, investments, and people. By leveraging the airport's unique assets, it fosters economic growth and improves the quality of life for local residents. The aerotropolis achieves this by integrating a range of amenities and services into the city's design, thus creating a self-sustaining economic ecosystem that supports businesses, workers, and residents (Banai, 2017).

The design of an aerotropolis includes state-of-the-art features that support economic growth and development. It offers a variety of amenities and services catering to the needs of companies, creating a favorable business environment that encourages investment and growth. Additionally, it provides a platform for international trade and commerce, stimulating local economic activity and generating jobs. Moreover, the aerotropolis can enhance the quality of life for local residents by incorporating public amenities and services into the city's design. This can involve the inclusion of parks, green spaces, and public transit, improving the health and well-being of residents while reducing environmental impacts.

Reflecting the demands of the new economy for connectivity, speed, and agility, the aerotropolis is optimized through corridor and cluster development, wide lanes, and efficient transportation. In other words, form follows function (figure 1). Airport expressways (aerolanes) are complemented by airport express trains (aerotrains) to seamlessly integrate cars, taxis, buses, trucks, and rail services with the air infrastructure at the multimodal commercial core, known as the airport city. Aviation-linked business clusters and associated residential developments radiate outward from the airport city, forming the greater aerotropolis (Kasarda and Appold, 2014).

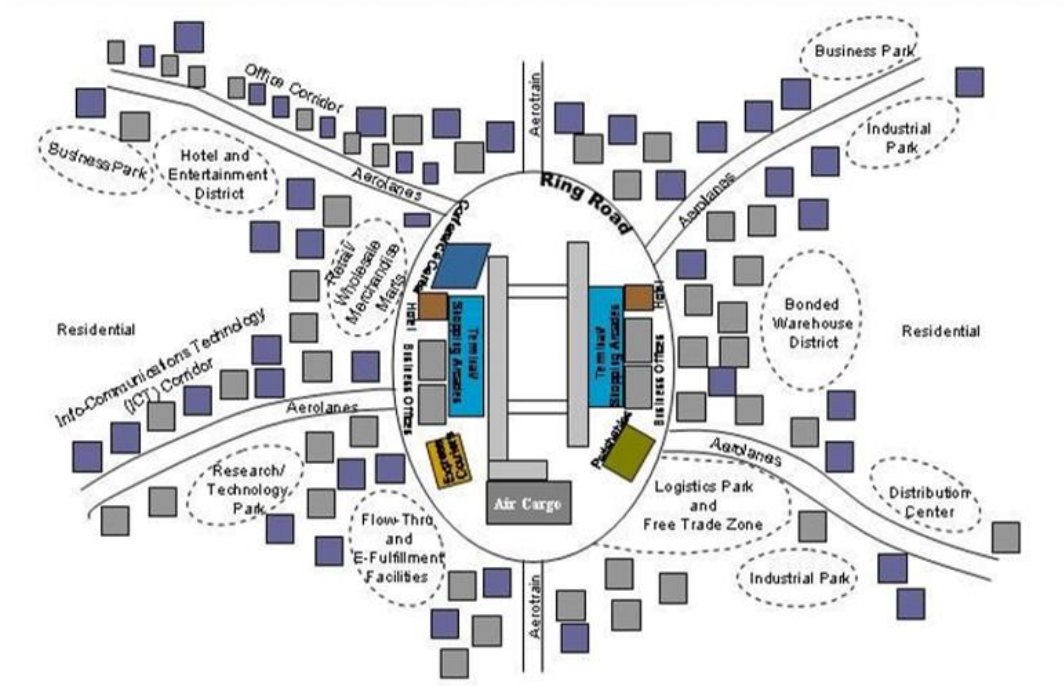

Figure 1. Aerotropolis Schematic
Source: Kasarda and Appold, 2014.

In conclusion, the aerotropolis is an innovative urban development concept centered around the airport as a hub of economic growth and development. Its integration of amenities and services into the city's design creates a self-sustaining economic ecosystem that supports businesses, workers, and residents, while also enhancing the quality of life for local residents. The terms "airport city" and "aerotropolis" are often used interchangeably due to their similarities. Both concepts aim to optimize the economic potential of airports and their surrounding areas by providing various amenities and services, such as hotels, restaurants, shopping centers, and entertainment facilities, for passengers and local residents. Connectivity is also a shared feature, with excellent transport links and good road and rail connections for easy access.

The main goal of airport cities and aerotropolises is to create vibrant, self-sustaining urban environments that support economic growth and development while offering a high quality of life for residents and visitors. In summary, airport cities and aerotropolises are closely related concepts with similar features, both of which are essential for the advancement of air travel and urban planning (Brueckner, 2003).

5. Case studies

Aerotropolises have appeared in different cities worldwide, either as a result of natural growth or planned development with the aim of creating a global city.

As of the end of the 2010s, there were over 80 aerotropolises either operational or in development globally; nowadays many others are developing (Kasarda and Appold, 2014).

The aerotropolis phenomenon responds to the global market by developing a city with the airport at its center. A successful aerotropolis aims to better serve workers, suppliers, executives, and goods by responding to the growing demand for air travel and global business networks. Kasarda and Appold (2014) suggest that the faster a city can provide ground access to jobs and industry near airports, the greater share of global economic activity it can attract (Yin, 2014).

Many cities have established their own versions of aerotropolises, and the following case studies examples demonstrate different cities around the world, despite limitations in terms of land or other

resources, are developing aerotropolises, changing the territory, to compete in the global marketplace. any cities intend to develop an aerotropolis (Yangmin et al., 2021).

Incheon International Airport, located in Seoul, South Korea, is one of the world's busiest airport hubs, serving as a vital connection point for passengers traveling between Asia and other parts of the world.

Incheon Airport was opened in 2001 with the goal of establishing trade and travel with China, a strategic location as it is just two hours flying time from Shanghai and Beijing, and four hours from many other large Chinese cities. This has allowed for new markets to open up to billions of people.

In conjunction with the airport, in order to boost its economic potential, an aerotropolis development, called Songdo International Business District, was planned. This global business hub opened in 2009 and is designated as a Free Economic Zone, providing tax benefits and a simpler regulatory regime for foreign firms and foreigners. It offers office and convention space, hotels, residential and retail developments, schools, health care facilities, and recreation space, and is just 20 minutes from Incheon and one hour from Seoul. Songdo is one of the leaders in the high-tech industry and already hosts large offices for Samsung, Cisco, and IBM.

Incheon Airport is known for its modern and easy facilities and state-of-the-art technology. It offers a wide range of services and amenities, including free Wi-Fi, airport lounges, duty-free shops, restaurants, and cafes. The airport has won several awards for its excellence in customer service and efficiency, making it a top choice for many travelers.

In addition to its passenger services, Incheon Airport is also an important hub for air cargo. It has a dedicated cargo terminal with advanced facilities and state-of-the-art equipment, making it one of the most efficient and reliable cargo hubs in the world. This has helped to drive the growth of the South Korean economy, with Incheon Airport contributing significantly to the country's GDP.

Overall, Incheon International Airport is an important player in the global aviation industry, serving as a crucial connection point between Asia and the rest of the world. Its strategic location, modern facilities, and efficient services have made it a top choice for many travelers and businesses alike (Kim and Baum, 2016).

Similarly, Dallas-Fort Worth International Airport has become a major economic engine in North Texas, as a true example of an aerotropolis.

It is located in the Dallas-Fort Worth Metropolitan Area (DFW Metro Area), covering a 12-county region in North Central Texas, and it is one of the busiest airports in the world. DFW Airport has played a vital role in North Texas' economic growth and is credited with being a major economic engine of the metro area.

The establishment of DFW Airport required collaboration and cooperation with all of the 12 counties in the region, and it was not an easy task. However, the airport has become a critical component of the North Texas economy. Business activities supported by air cargo moving through DFW Airport generate more than $30 billion directly or indirectly and support employment in the area.

DFW Airport's success story has spurred significant development in the region. The airport's location has attracted businesses from various industries, including technology, finance, and healthcare, which has led to the creation of new jobs and economic opportunities.

Additionally, DFW Airport has several thousand acres of property available for future aerotropolis-related development, which will further contribute to the growth of the region.

Overall, DFW Airport is a model for how airports can transform surrounding areas into thriving economic hubs. Its success has shown that airports can play a vital role in the growth and development of a region and serve as a catalyst for economic growth (Jones, 2017).

Finally, Amsterdam's Schiphol International Airport is an excellent example of how an airport can transform into a thriving aerotropolis. Located just six miles from the largest flower auction in the Netherlands, Schiphol airport plays a vital role in the global economic market.

The airport has been a major hub for international trade and commerce, especially in the floral industry, which has been around for centuries in the Netherlands. The country is one of the world's major growers and exporters of flowers, and the airport has been instrumental in facilitating the export

of these goods to markets around the world. In fact, KLM, the flag-carrier airline of the Netherlands, invented the perishables business in 1928 by airlifting 7,500 hundred tons of flowers, fruits, and vegetables to London in that year alone (Bertolini and Spit, 2018).
Schiphol airport is also strategically located near the Amsterdam District Zuidas, a 670-acre aerotropolis that has been planned to take advantage of Amsterdam's global economic importance. This airport city is a thriving business hub that offers office space, restaurants, residential units, a university, a medical center, and the Netherlands' largest convention center located just six minutes from the airport.
The airport has played a significant role in transforming the surrounding territory into a thriving aerotropolis. With its strategic location and excellent connectivity to major cities around the world, the airport has attracted several multinational corporations to set up offices in the Amsterdam District Zuidas. The area is now a bustling economic center that generates significant employment opportunities and drives economic growth in the region.
In conclusion, Schiphol International Airport is an excellent example of how an airport can be transformed into a thriving aerotropolis.
Its strategic location, excellent connectivity, and proximity to other economic centers have made it a vital link in the global supply chain.
The Amsterdam District Zuidas is a testament to how the airport has transformed the surrounding territory into a thriving business hub. With its ongoing development and growth, Schiphol airport is likely to continue driving economic growth and development in the region for many years to come (Maat and van Wee, 2013).

5. Conclusions and further research

As seen, transportation is a derived demand that serves as an intermediate service to fulfill the direct demand for accessibility to places and services.
Although people travel to reach specific destinations, the most effective way to make a transportation forecast is to observe the land-use pattern of a given area to define the origin and destination of these trips. While in rare cases, travel may be considered an end in itself, the vast majority of travel time is seen as a cost rather than a benefit.
Therefore, it is necessary to consider the negative externalities of travel, such as road congestion, psychological stress, noise, and air pollution, and strike a balance between investing in fast travel options and promoting environmental sustainability and accessibility. In this way, transportation can be used to improve mobility and provide better accessibility to places and services, making them more appealing to people.
Airline deregulation, route liberalization, and the continuous increase in demand for air travel have led to significant changes in aviation, mobility, and accessibility, all seeking to enhance attractiveness.
As a consequence, airports have undergone a transformation from mere transportation hubs to become urban centers that drive regional economic growth. This shift has resulted in the emergence of new urban models such as airport cities and aerotropolis, which have a substantial economic impact on surrounding areas, creating job opportunities, increasing GDP, and generating added value.
However, these new urban forms also carry risks and costs from economic, environmental, and cultural perspectives, which must be taken into account.
The appropriate sizing and interconnection of airport terminals can lead to better job opportunities, improved quality of life, and greater accessibility, particularly in response to suburban depopulation, aligning with metropolitan development trends. Consequently, studying aviation's impact on accessibility is essential in today's world.
Aerotropolises, which aim to better serve citizens, travelers, workers, suppliers, executives, and freight in response to the growing demand for air travel and global trade networks, have emerged globally as a result of either natural growth or planned development aimed at creating a global city.

By the late 2010s, more than 80 aerotropolises were operating or under development worldwide, and this number continues to rise. Examples like Incheon International Airport, Dallas-Fort Worth International Airport, and Amsterdam Schiphol International Airport illustrate how airports can transform surrounding areas into thriving economic hubs, competing in the global marketplace by attracting a greater share of global economic activity through improved overland access to jobs and industries near airports.
The study was solely centered on the emergence of these new forms of urbanization. However, future research could explore aspects related to sustainability in all its forms, building upon the three case studies that were identified.

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