

# AIRPORT CONCESSIONS IN BRAZIL AND ITS INFLUENCES ON SERVICE QUALITY: THE CASES OF BRASÍLIA AND SÃO PAULO – GUARULHOS AIRPORTS

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## ABSTRACT

Over the last decade, the Brazilian air market has tripled in size, a result of economic expansion and the spread of the air travel culture, among others. As far as airport infrastructures are concerned, during the mega-events era (2014 FIFA World Cup and the 2016 Summer Olympics), the airport management sector started to receive greater investments from private and foreign companies. After 2012, a large array of improvements took place, in order to meet the demands associated with the mega-events, but also to tackle the increase of domestic air traffic. In this context, this paper aims to identify, describe and analyze the influences of the airport concession in Brazil on the quality of services perceived by the users (passengers). For that, an analysis of the reports of the aviation authorities is carried out. The airports of Guarulhos (São Paulo) and Brasília (Federal District), among the first to be privatized, were selected as case studies. From this study, the mobility of global capital associated with airport management deserves to be highlighted, while the expertise of these large companies is expected to contribute to the increase in the quality of services in Brazilian airports - historically managed by public sector.

Keywords: Air Transport, Airports Concession, Quality of Services, Brazil.

JEL Classification: L93, L83

## 1. INTRODUCTION

Over the last decade, the Brazilian air sector has developed into a significant competitor in relation to the road transport, especially the transportation by bus. Economic expansion, the attraction of mega-events, such as the FIFA World Cup in 2014 and the Olympic and Paralympic Games in 2016, favored the dissemination of the travel culture throughout the country, with the air travel being essential for a territory of continental dimensions, such as Brazil.

The deregulation of the Brazilian air sector was driven by a flexible policy of the commercial aviation started in the 1990s, composed of at least three phases of liberalization (between 1992 and 1997, from 1998 to 2001 and from 2001 to 2003) (Ribeiro, Fraga & Santos, 2010).

The discussion on the transformations regarding airport management in Brazil - one of the largest aviation markets in the world - and its relations with the dynamics and organization

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data are provided in quarterly reports by the Secretariat of Civil Aviation. By convention, only the data for the last quarter of each year were considered and scores range from 1 to 5.

The paper is subdivided into three parts, the next section presents the literature review under two biases, the first on the quality of services, and the second on airport concessions. The other section then deals specifically with the cases. Thus, based on this study, the mobility of global capital associated with airport management must be highlighted, while it hopes that the expertise of these large companies will contribute to the increase of the quality of services provided at Brazilian airports - historically managed by public companies (such as Infraero<sup>4</sup>).

## 2. LITERATURE REVIEW

The relationship between transport and tourism is intrinsic, and air transport plays a key role in shortening distances, since it is possible to access virtually any point on the globe in a short space of time (Palhares, 2002). The services of both transport and tourism have very specific characteristics such as intangibility, perishability, inseparability and variability, and should be treated based on marketing mix strategies (Lohmann, Castro & Valente, 2013).

The need to differentiate service provision is fundamental in a globalized world in which air sector companies, such as airports, compete to attract passenger demand, whether tourists or not. The advancement of new information and communication technologies (NICTs) plays a strong role, since passengers can have real-time information that can influence decision making and the composition of services. One of the strategies of differentiation used by airports is branding, which is the creation of a distinct identity aiming to provide the clients with positive and unique experiences (Castro, 2015).

Table 1. Brief Literature Review on Airport Service Quality

Author (Year)	Geographical Area	Remarks
Bogicevic <i>et al.</i> (2013)	33 airports around the world	Evaluation of positive and negative points on airports made from reviews on websites, which highlights the importance of the relationship between real and virtual in the provision of services at airports.
Bezerra & Gomes (2016)	GRU Airport, São Paulo, Brazil	The authors developed a multidimensional model for measuring the quality of airport services.
Pantouvakis & Renzi (2016)	911 passengers of various nationalities boarding at Fiumicino Airport in Rome, Italy, were interviewed.	In this study, it was evident that the evaluation of the Italians about the perception of the quality of this airport was worse than that of the foreigner passengers.
Fernandes & Pacheco (2008)	6 Brazilian international airports (Belém/PA, Brasília/DF, Curitiba/PR, Fortaleza/CE, Porto Alegre/RS and Salvador/BA)	The study uses Fuzzy multi criteria methodology to analyze a complex set of variables related to the quality of airports.
Bogicevic <i>et al.</i> (2016)	United States of America	The authors state that pleasure and anxiety are achieved with satisfaction or dissatisfaction regarding the quality of airport services.

Source: Own Elaboration

<sup>4</sup> Infraero is the acronym for the Brazilian Airport Infrastructure Company, a Brazilian government corporation founded in 1973 with the aim of managing the country's airports. Until 2011, Infraero managed 67 airports, concentrating approximately 97% of the country's regular air transport movement. Currently, after the concessions, the company is responsible for the management of 59 airports, as well as being a partner (with 49% participation) of the airports of Brasília, Guarulhos and Viracopos (in São Paulo), Confins (Belo Horizonte) and Galeão (Rio de Janeiro) (Infraero, 2017; Lohmann, Fraga & Castro, 2013).

It is known that travelers are becoming increasingly savvy and less loyal, which makes research on the quality of services essential for the air travel sector (Halpern & Graham, 2013). Thus, the objective of this part of this brief literature review was to identify studies on airport service quality, summarily presented on Table 1.

The perception of airport services is a complex process. Characteristics related to the design and the good smell of the place, for example, may positively influence the pleasure of travelers generating greater satisfaction with the airport. On the other hand, poor functional organization and inadequate temperature and lighting conditions are important factors for increasing travelers' anxiety, leading to a low satisfaction (Bogicevic *et al.*, 2016). In another study, it was possible to identify satisfactory (such as cleanliness and pleasant environment) and unsatisfactory examples (e.g. safety checks, confusing signaling, poor food supply) issued by users in the survey of airports in 33 countries. Thus, it is noticed that the management of the quality of services in the airports is a great challenge that demands a lot of research (Bogicevic *et al.*, 2013).

The study of Bezerra and Gomes (2016) is extremely relevant to the case studies presented here (see next section), since the validation of the method was carried out through the results of the Civil Aviation Secretariat (SAC) survey on Guarulhos Airport in São Paulo (Brazil). The results of this study suggest that a measurement structure should contemplate six factors when it comes to the quality of services perceived by the passengers (check-in; security; convenience; ambience; basic facilities; mobility). The authors emphasize that there may be a difference between the "weights" attributed to each factor whether they are domestic or international passengers.

In a previous study, Bezerra and Gomes (2015) addressed the need to consider passenger characteristics (such as the habits and frequency of air travel, among others), since these may be directly related to the perceived levels of service quality (Bezerra & Gomes, 2016). Thus, observing satisfaction survey data in a static, or non-contextual way, can contribute to inferences and misplaced conclusions of the reality. This is evident when it is considered, for example, the difference of nationalities. In a study regarding Fiumicino International Airport in Rome (Pantouvakis & Renzi, 2016), it was concluded that the Italians were more critical about the service quality than the foreign customers.

It is clear that the analysis of several dimensions and criteria are essential for the treatment of the service quality at airports (Fernandes & Pacheco, 2008; Bezerra & Gomes, 2016; among others). In general, airport concession/privatization processes are mostly justified by the need to increase the quality of airport services. Thus, analyzing the transformations in airport management and its relations with the dynamics and organization of tourism is an opportunity.

Graham (2011) identified in the literature the main purposes of airport privatization: "Improve efficiency/performance"; "Provide investment"; "State financial gains"; "Less state influence"; "Improve quality"; "Improved management/diversification". Indeed, the empirical analysis of several privatized airports (notably in Australia, the United States, Congo and India) highlights the importance of the "improve quality" factor (Burton, 2007, 2009; Assaf, 2010; Vasignand & Haririan, 2003, *apud* Graham, 2011). Hooper, Cain and White (2000) highlight the complexity involved in the privatization process in Australia, and this international experience can be useful to analyze the Brazilian scenario for post-privatization objectives.

Table 2 presents a brief review of the literature on airport concession/privatization.

Table 2. Brief Literature Review on Airport Concession

Context	Author (Year)	Geographical Area	Remarks
International	Graham (2011)	Not applicable	From the literature review the main objectives and results of airport privatization are identified.
	Hooper, Cain & White (2000)	Australia	Describes the sales processes and details about new owners, their commitments, and the regulatory system in the post-privatization period in Australia
	Lipovich (2008)	Argentina	It addresses the origin and the characteristics of the operationalization of the National System of Airports in Argentina.
	Park <i>et al.</i> (2011)	South Korea	The study identifies the possible effects of the planned privatization of Incheon International Airport (IIA).
National (Brazil)	Pereira Neto <i>et al.</i> (2016)	Brazil	It deals with the pro-competition rules in the concession of multiple airports for private companies, based on the recent Brazilian experience
	Oliveira, Lohmann & Costa (2016)	Brazil (2000- 2010)	The study addresses network concentration and airport congestion in the post-deregulation period.

Source: Own Elaboration

In Brazil, the study by Pereira Neto *et al.* (2016) addresses the recent national experience, highlighting not only the learning that Brazil had with the experience of Australia, but also with Mexico and the United Kingdom. Brazil seemingly learned from international experience when designing its own airport privatization program. It did not put “all eggs in one basket” as in the UK and tried to incorporate some of the sophistication in tariff regulation which was recommended in Mexico. In doing so, Brazil moved closer to the Australian experience, where potential competition between hubs was found to have positive impacts, even when their catchment areas were not coincident (Pereira Neto *et al.*, 2016).

One of the conclusions of Pereira Neto *et al.* (2016) is that governments should design regulatory decisions regarding competition between airports. Thus, it is no longer just a matter of competition between tourism destinations or between airlines, but also between airports, which makes quality issues (see Table 1) relevant to progress in service delivery, including services for tourism.

In a study in South Korea, regarding the possible effects of the privatization of Incheon Airport in Seoul (IIA), six different scenarios were analyzed by 47 experts: (1) The privatization of IIA will affect its future general aspects; (2) The privatization of IIA will affect its future ownership; (3) The privatization of IIA will affect its future airport strategy and plan; (4) The privatization of IIA will affect its future financial affairs; (5) The privatization of IIA will affect its future airport operation and approach facilities; (6) The privatization of IIA will affect its future airport fees. The panel ended up predicting that the privatization of this airport could be related to the weakening of the government control system and to the increased costs for airlines and passengers (Park *et al.*, 2011).

A South American reality, which also began in the 1990s, as in Brazil, is portrayed by Lipovich (2008) in the process of privatizing airports in Argentina. The main purpose in this case was to facilitate investments in the modernization of airports in order to meet its long-term needs. The author also highlights other Latin American countries that inspired the privatization process of airports in Argentina, such as Colombia, Mexico, Chile, Bolivia, Costa Rica, Peru, the Dominican Republic and Venezuela. The total of 33 airports were offered for concession in a period of 30 years, with the possibility of extension for another 10 years. The consortium Aeropuertos Argentina 2000 SA (Group consisting of Argentine capital - 34%, Italian - 33% and American - 33%) was the winner, taking out all the airports, which led to subsequent changes (in 2007) in the concession agreement (Lipovich, 2008).



Paiva (2015) made a specific study about the concession of Confins Airport in Belo Horizonte, Brazil, even though there are still few studies on this matter (Table 2). However, it is clear that the process of privatizing airports can directly interfere with flight operational issues. For example, episodes of delays and cancellations have decreased at privatized airports in Brazil (Oliveira, Lohmann & Costa, 2016). During the 2014 FIFA World Cup, where the Brazilian airport system was used by more than 16 million passengers in less than two months, only about 7% of flights were affected by delays (Oliveira, Lohmann & Costa, 2016).

The next section addresses a specific discussion about the concession of two Brazilian airports in the service quality perspectives.

### **3. AIRPORT CONCESSION IN BRAZIL: THE CASES OF BRASÍLIA AND SÃO PAULO-GUARULHOS AIRPORTS**

Regarding the airports infrastructures, it was only during the so-called “mega-event era” that the airport management sector started to receive larger investments from private and foreign companies. After 2012, a great variety of improvements occurred aiming to meet the demands associated with the mega-events, but also to face the increase in domestic air traffic. In the first auction, the International Airport of São Gonçalo do Amarante was awarded in Natal (2012); In the second lot (July 2012), the auctions of Brasília airports, in the Federal District; Guarulhos, in São Paulo (São Paulo International Airport, the busiest airport in the country) and Viracopos, in Campinas, stood out. Finally, the third lot (May 2014) included Tom Jobim International Airports in the city of Rio de Janeiro and Tancredo Neves-Confins in Belo Horizonte, Minas Gerais (ANAC, 2015).

In March 2017, a fourth lot included the airports of Florianópolis in Santa Catarina, Porto Alegre in Rio Grande do Sul, Salvador in Bahia and Fortaleza in Ceará. The media also reported the possibility of a fifth lot, which could include Santos Dumont airport in the city of Rio de Janeiro, Recife in Pernambuco and Cuiabá in Mato Grosso, this time without Infraero’s participation, which will be different from previous lots (O Globo, 2017).

The aim of this section is to identify the influence of the airport concession in Brazil on the service quality perceived by the users (passengers), especially focusing on two airports that were some of the precursors of the concession process: GRU Airport in São Paulo (see sub-item 3.1) and Brasília Airport in the Federal District (see sub-item 3.2).

#### **3.1 GRU Airport - São Paulo/Guarulhos International Airport**

São Paulo / Guarulhos International Airport - Governador André Franco Montoro (GRU) was built on a site at the São Paulo Air Base, in the municipality of Guarulhos, Northeastern of the São Paulo Metropolitan Area. Until its opening (1985), the international traffic of passengers and cargo was handled by the Congonhas (in operation since 1930’s in the South Zone of São Paulo) and Viracopos (in the city of Campinas, 100 km from São Paulo) airports.

Since then, São Paulo-Guarulhos Airport has consolidated as the main hub of Brazil, as well as much of South America, making connections with the Northern Hemisphere (Europe, the United States and Canada) and some regions of Africa (such as Morocco, South Africa and Ethiopia) and the Middle East (Qatar and the United Arab Emirates). Currently, the airport’s three terminals handle more than 36 million annual passengers, accounting for 267,000 take-off and landing operations (GRU Airport, 2017).

The growth of domestic air flows, mainly after the partial liberalization of the Brazilian air sector (1990s), as well as the consolidation of São Paulo as one of the main global

metropolises, has generated greater pressure on the airports of São Paulo (Guarulhos and Congonhas, and, to a lesser extent, Viracopos-Campinas). This was one of the first airports to be included in the program of airport desestatization in Brazil, considering future demands for sport mega-events which would occur in the following years. Since July 2012, the airport is managed by São Paulo International Airport Concessionary – or simply *GRU Airport*, formed by Invepar and ACSA (Airports Company South Africa), in a concession granted for 20 years (GRU Airport, 2017).

Considering the period of analysis of this paper (2013-2016), São Paulo (Guarulhos) airport displays a set of indicators, in the category “Airport infrastructure”, with positive and increasing evaluations between 2013 and 2015. Nevertheless, at the end of 2016 the evaluation of practically all the items presented falls. There were no items in this category in which the airport scored a rate higher than the average of all airports evaluated (4.28), although its overall average increased - from 3.26 in 2013 to 4.35 in 2016. One of the few items that had the best score was the quality of the internet / Wi-Fi, but still the best grade is below 4.0 and this is the one indicated with worse evaluation in the overall picture of the category (Figure 2).

This drop in the indicators is intriguing given that a new international terminal (Terminal 3) is available since 2014, coinciding with the hosting of the FIFA World Cup. On the other hand, the operational and facility discrepancies between the other terminals – mainly Terminal 1 (which was installed in an old adapted cargo terminal) – probably explains the scores in the infrastructure items. By analysing the data, the biggest jump in positive evaluations took place between 2014 and 2015, a probable increase resulting of the improvements brought by the new terminal – a benefit delivered under GRU Airport administration.

Considering the category “Passenger Facilities”, in general, the assigned scores follow the parameters of the previous category: significant improvement between 2013 and 2015, but with decrease in the main items in 2016 – including the general average of the airport, although this score is higher than the average of other airports in the country (Figure 3).

The users’ evaluation regarding parking, one of the sensitive items of any Brazilian big airport, had a visible increase in both quality of the facilities (from 2.96 to 4.09) and the cost-benefit relation (from 1.67 to 3.29). Although the final score on cost-effectiveness remains low, it is important to note that this item presents a constant improvement. This could be explained by the start-up of a new multi-storey car park (in 2013, after only 7 months of construction), with capacity for approximately 2,600 spaces and well integrated with Terminal 3.

Another positive cost-benefit assessment refers to the prices of food and other products available at the airport. In a similar situation to the parking lot, although they are still low on the general average of the airport, there is a tendency to increase in this area - probably linked to the supply of cheaper food places (including a recent providing of snacks and drinks machines) and to the greater offer of businesses brought by the inauguration of Terminal 3 (where several chain stores were installed, with prices that tend to be standardized).

At large, if the general average of São Paulo Airport (Guarulhos) places it in a higher position than the average of other Brazilian airports, it is certainly not for an expressive contribution in the evaluated items in these two categories (“Airport infrastructure” and “Passenger Facilities”). The other categories – not focused on this study – can mean a greater participation in the general score. In this case, these items do not depend directly on the performance of the concessionaire – such as services provided by public agencies (immigration, customs, etc.) and airlines. Therefore, the trajectory of improving the quality of services may be more associated with the performance of other parties, than with the concessionaire (GRU Airport, 2017). However, it should not be overlooked that the

coordination of actions among various airport stakeholders is also a result of the airport concessionaire's performance.

### **3.2 Brasília International Airport**

The history of Presidente Juscelino Kubistchek de Oliveira International Airport (BSB) is entangled with the construction of the city of Brasilia itself, designed to be the new capital of the country. The project of the city, founded in 1961, had as one of its purpose to internalize the development of the country, concentrated until then on the Atlantic coast. The airport served as a reference for the connections between the Central Plateau and the various regions of the country, especially in view of the connections of the central public administration to the states and municipalities throughout the country (Silva, Sobrinho & Fortes, 2015; INFRAMERICA, 2017).

Brasília, currently with more than one million inhabitants, has become one of the most important metropolitan regions of the country, with a much more diversified and substantial demand for air travel than in the 1960s. In this context, the airport expanded its functions, becoming a major hub of domestic airlines (mostly for connecting the South and North-Northeast parts of the country), and started to count on more international routes (mainly from/to South and North America) (Silva, Sobrinho & Fortes, 2015) (ANNEXES Figure A and Figure B).

Among the 14 items evaluated in the "Airport Infrastructure" category, almost all of them improved between 2013 and 2016, resulting in scores above the airport average (4.44). Overall, there was a significant improvement in items related to procedures (queuing times and ways of providing services in the safety control or cleaning of toilets and the airport as a whole) or requiring specific physical interventions (departure/arrival panels, toilets and seats in the departure lounge). From the concessionaire's point of view, being able to structure and maintain good levels of user-friendly service (e.g. cleaning) is a strategy that certainly contributes to the overall airport assessment (ANNEX Figure C).

The availability of power plugs and the quality of Wi-Fi seem to be related to each other: being the aeromobility experience of contemporary passengers' dependent on their connections to remote spaces while on the move, the possibility of connecting via cell phones, tablets or computers must have an importance in the overall evaluation of the terminal.

In turn, three items remain with ratings far below the airport average (4.44) and the overall average for airports in the country (4.28): ease of boarding/disembarking at the curb, feeling of security in the public areas of the airport and acoustic comfort. These elements are related to the macrostructure of the terminal, indicating difficulties of adjustments by the concessionaire. Brasília Airport has been implemented under the principle of open and modernist constructions, since its conception has not been foreseen a controlled environment both in access to public areas and for air conditioning – exposing people, for example, to excessive noise coming from the airside for those who are in the food court. This may explain the fact that these elements remain relatively low, when the overall airport rating is continuously improving since certain interventions may imply more structural or budgetary restrictions.

In the category "Passenger Facilities", parking, food and shopping facilities and services are essentially evaluated. Like the previous category, all items showed improvements between 2013 and 2016, highlighting the availability of these services and structures, with scores close to the average of the airport and the overall of the evaluated airports. On the other hand, in the cost-benefit evaluation, the scores in 2016, although better than in 2013, are quite low: parking with 3.36, food and beverage options with 2.60 and commercial products with 2.26. This suggests limitation for improving non-aeronautical revenues,



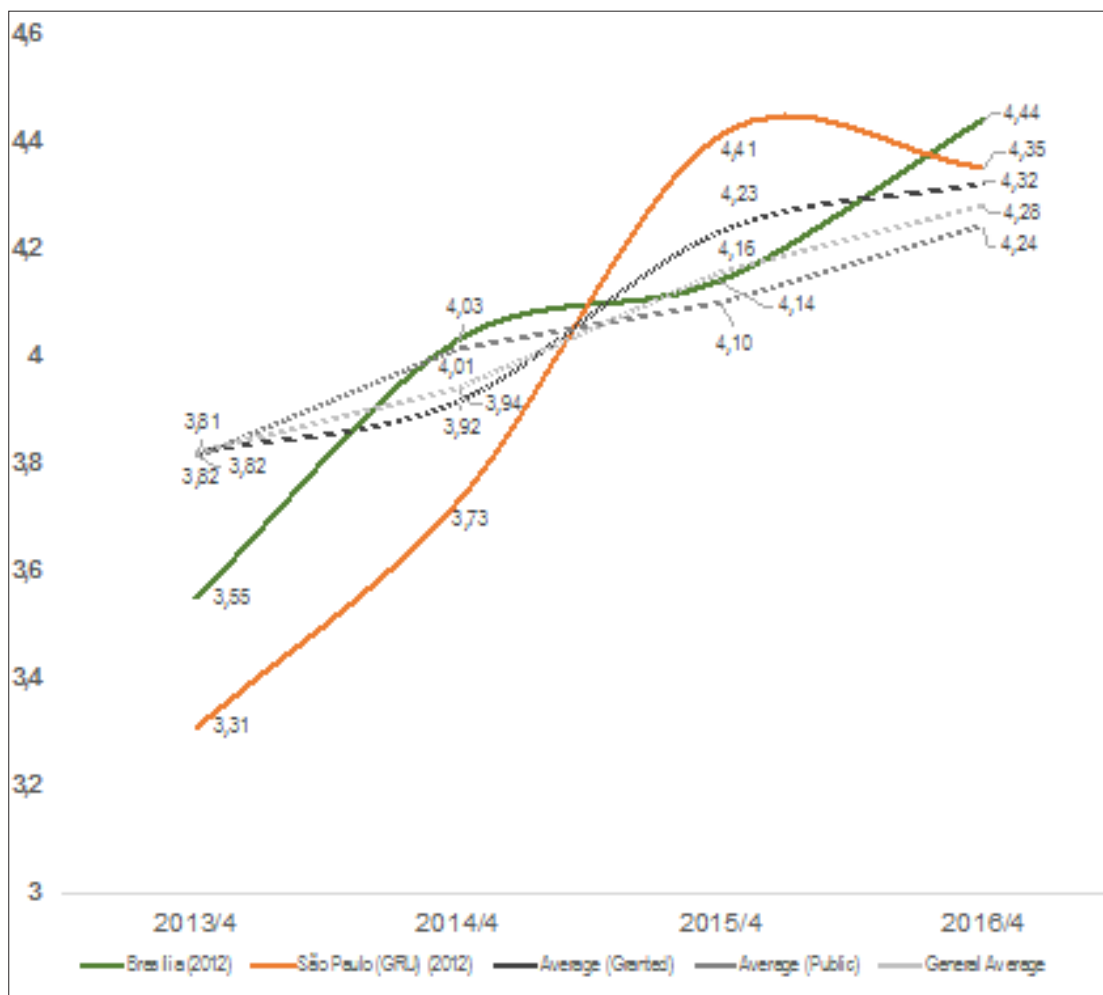
assuming that passengers understand that consuming at the terminals is not advantageous – despite evaluating how positive the quantity and quality of services (food services and other businesses) are (ANNEX Figure D).

This may also suggest some limits to the logic of integration of airport terminals with the tourist and commercial dynamics of the cities, since if even the cost-benefit ratio is perceived as disadvantageous, other publics (non-passenger) will probably have a similar perception. If, in general, Brazilian airports are poorly connected to cities by public transport, the need for access by individual transportation is almost a rule – which imposes another restriction, since, as seen, the cost-benefit ratio of parking lots was assigned bad scores.

### 3.3 An analysis of the quality of services provided at airports

There were small variations between the groups formed by airports granted to the private initiative (N = 6) and the others, which are still under the management of Infraero (N = 9), but all of them showed improvement in the period (2013-2016) (Figure 2).

Figure 2. Airport general scores – Brazil (2013-2016)



Source: Own elaboration with data provided by the Civil Aviation Secretariat

The airports surveyed had a lower than 4.0 rating at the end of 2013 (before the 2014 FIFA World Cup and the 2016 Olympics). By the end of 2016, all airports had scored higher than 4.0, with the airports awarded a higher average score (4.32) than the general average (4.28), while airports managed by Infraero scored slightly lower (4.24). In any case,

the data indicate a growth trend in all groups – although the country context has changed considerably since 2016.

Overall, this general improvement could be attributed to the measures and investments oriented towards the accomplishment of mega-events in Brazil, which, in part, has taken over the policy of airport concession since 2012. Thus, it is not possible, in a specific way, to assume that private investment alone has been responsible for improving the quality of services at the country's airports.

In turn, in line with the literature (Graham, 2011; Halpern & Graham, 2013), it is reasonable to admit that the improvements that are being implemented in private airports – including Brasília and São Paulo (Guarulhos) – tend to raise the level of quality of services, especially because the concession contracts depend on this variable for its continuity. As for public airports, after a long period of strong investments aimed at preparing the country for a set of mega-events, it is not possible to guarantee that quality levels will be maintained, considering a scenario of economic retraction and a public airport management system grounded in fragmented performance evaluation.

Indeed, since 2016, Brazil has experienced a very troubled political scenario, which, in the administrative field, indicates for policies with less participation of the State in various sectors of the economy. Thus, as the privatization program progresses, it is likely that more airports will be managed privately (as in the Porto Alegre, Florianópolis, Fortaleza and Salvador auctions in March 2017), pointing to a general improvement in the standard of services at Brazilian airports – judging by the performance of the current granted airports.

It is also necessary to consider in the analysis of future scenarios the instability of the concessions, which are going through a series of difficulties. On the one hand, consortiums consist of large Brazilian infrastructure companies, some of which are implicated in recent corruption schemes and are at risk of having their operations impacted (both regarding the credibility with shareholders, as well as loss of business and the obligation of paying significant fines).

On the other hand, the Brazilian economic situation suggests a less expressive demand than expected when granting many airports, frustrating revenues and jeopardizing the fulfilment of contracts. In the demand studies carried out for the concession, the forecast was that Viracopos would handle 17.9 million passengers in 2016 – however, the flow record was 9.3 million passengers (52% of predicted). Thus, recently, Concessionária Aeroportos Brasil Viracopos S.A. (ABV) announced that it intends to withdraw from the management of this airport, demanding that the Federal Government conduct a new bidding process, for example (Aeroportos Brasil, 2017).

When considering the airports of São Paulo (Guarulhos) and Brasília, in this context, one can see that both have indicators of quality of services well below the averages for public airports, airports granted or even the global overall average at the end of 2013. However, by 2015, these airports have higher-than-average ratings, remaining in place until 2016 – despite the visible drop in São Paulo (Guarulhos) in 2016.

The average scores of Brasília (4.44) and São Paulo (Guarulhos) (4.35) – both granted at the beginning of the airport privatization process in Brazil and in the midst of a large increase in air travel demand in the country – display scores closer to the average of the airports granted (4.32) than to the public airports (4.28) or even the global average (4.24). This suggests that the privatization of airports has a role in improving the quality of services, particularly in those that depend directly on the performance of the enterprises in charge of the concession.

#### 4. CONCLUSION

Although in Brazil the airport concession is a recent phenomenon, two aspects deserve to be highlighted: first, the attention in the follow-up of the transformations from the perspective of the user, focusing on systematically evaluating the quality of services since the concessions started in 2012 and, secondly, the evolution perceived by the users of the airports granted, indicating that, in the cases studied, the concession process contributed – directly or indirectly – to the evolution of the quality of services provided in such terminal.

However, further studies – with more data and new information crossings, such as passenger characteristics, for example, as highlighted by Bezerra and Gomes (2015) – are needed. Other qualitative approaches would also contribute to understanding subtle aspects of airport experience. As Bogicevic *et al.* (2016) and Bogicevic *et al.* (2013) stated, specific elements (temperature, odors, ambience, and many others), when considered in its global presence, comes to influence the users' experience in a given terminal. These aspects could be assessed by alternative methods, including the large array of mobile methods (Urry, Büscher & Witchger, 2015), not without disregarding the importance of the remarkable use of new technologies of information and communication not only by passengers, but also as a tool for researchers and airport administrators.

From this study, the mobility of global capital associated with airport management deserves to be further observed, in the expectation to assess if the expertise of large companies (with remarkable background on airport management) will contribute to the increase in the quality of services provided at Brazilian airports. A closer analysis on privatized airports in “emerging countries” – for instance, South Africa and Argentina – should be a constant strategy, since these contexts impose different political, economic and institutional pitfalls compared to those where such international airport companies emerged.

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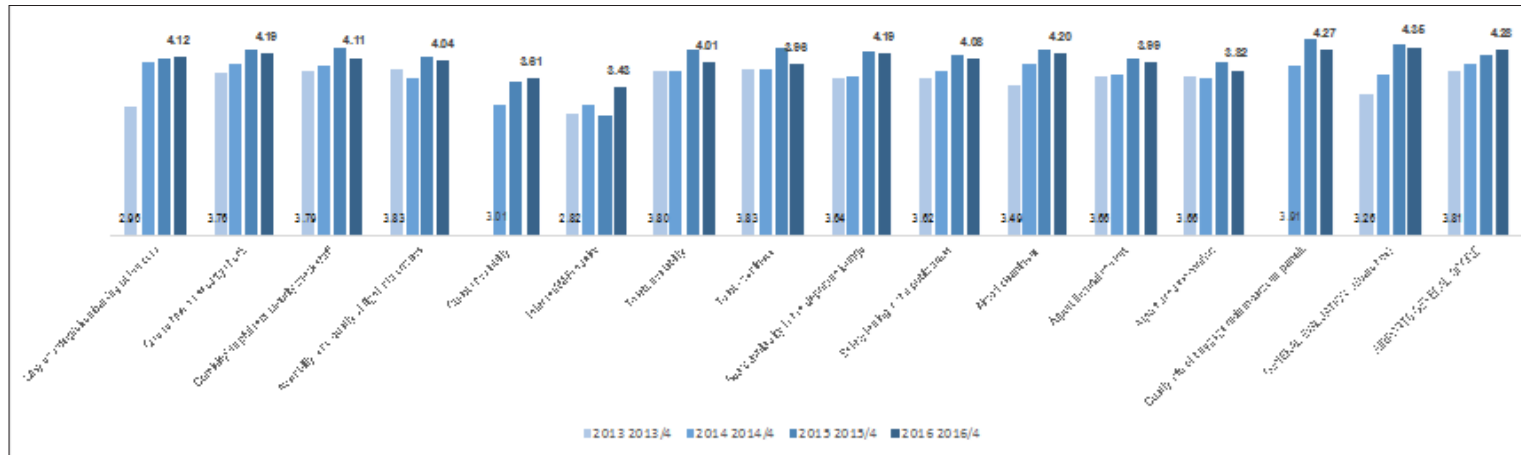
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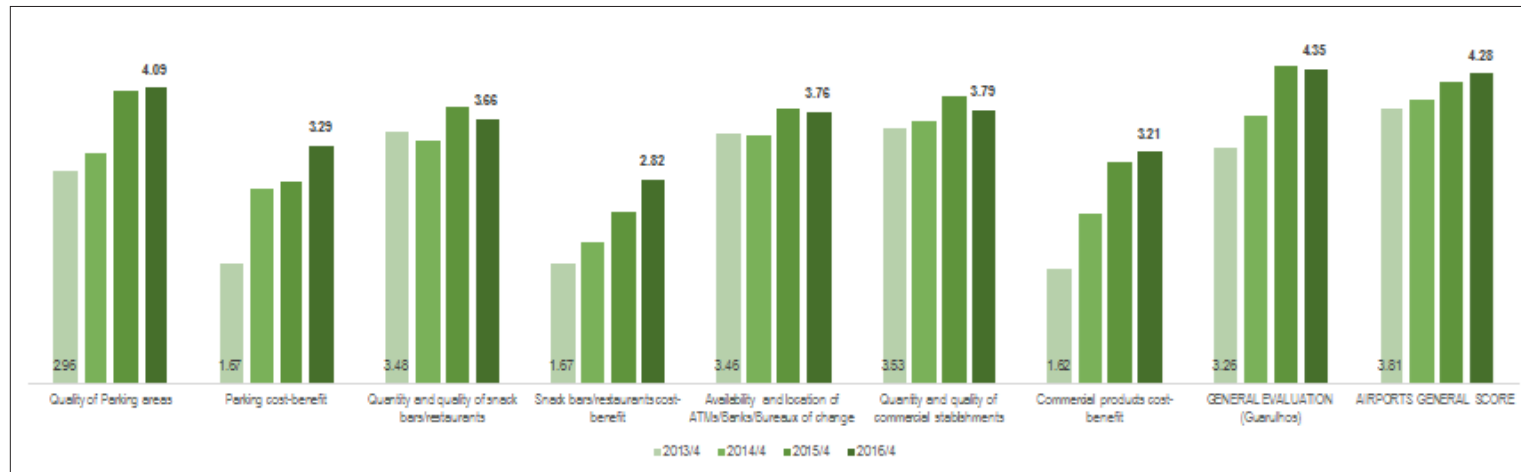
ANNEXES

Figure A. Service Quality Indicators (Airport Infrastructure) - São Paulo (Guarulhos), 2013-2016



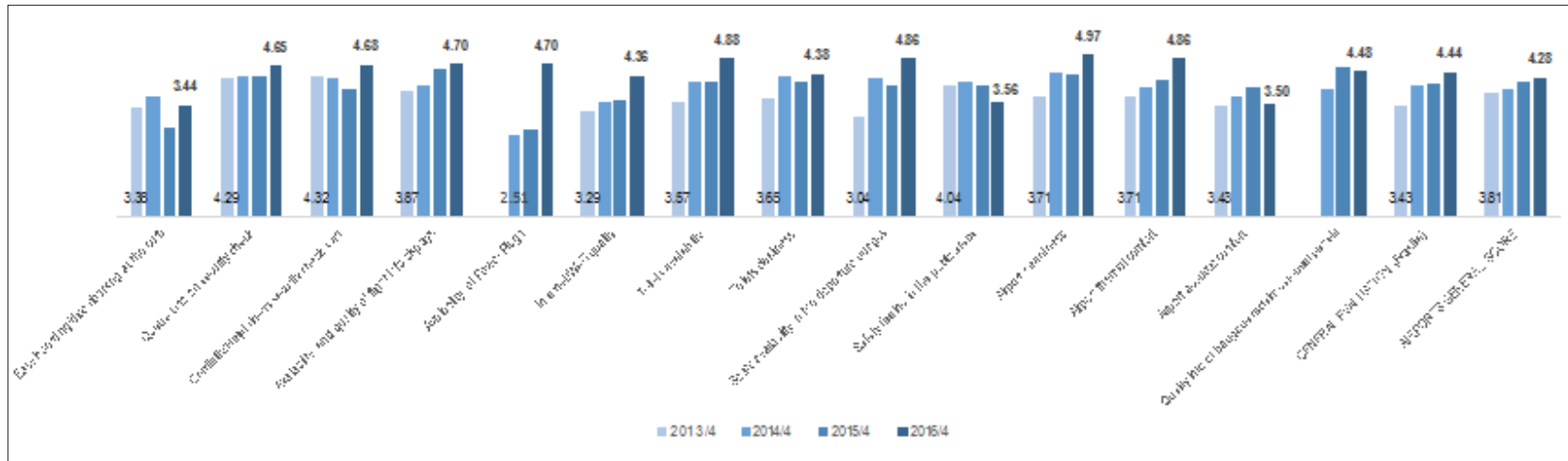
Source: Own elaboration with data provided by the Civil Aviation Secretariat (2013, 2014, 2015, 2016)

Figure B. Service Quality Indicators (Passenger Facilities) - São Paulo (Guarulhos), 2013-2016



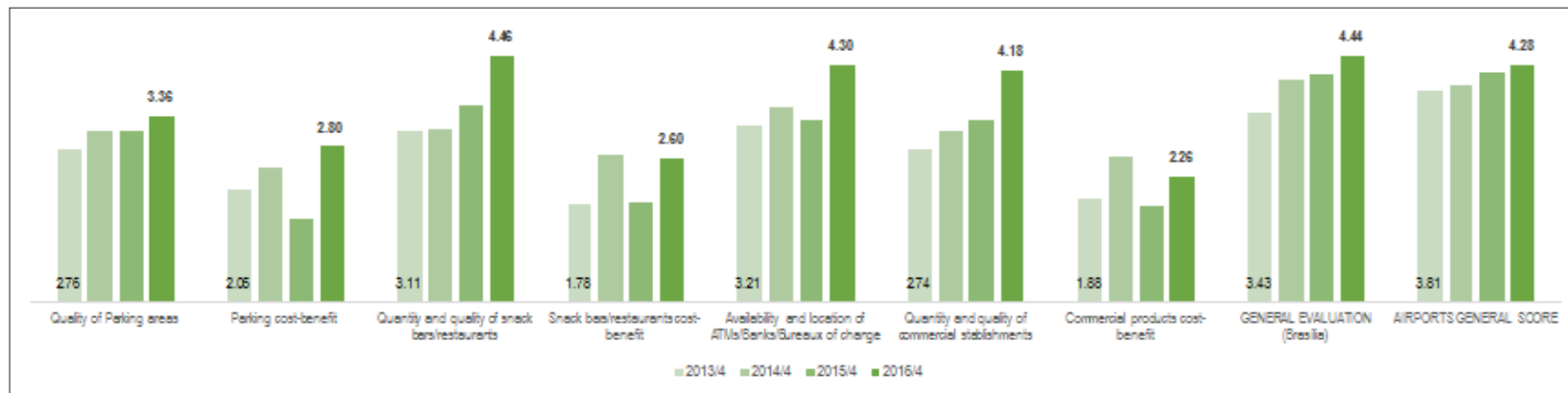
Source: Own elaboration with data provided by the Civil Aviation Secretariat (2013, 2014, 2015, 2016)

Figure C. Service Quality Indicators (Airport Infrastructure) – Brasília, 2013-2016



Source: Own elaboration with data provided by the Civil Aviation Secretariat (2013, 2014, 2015, 2016)

Figure D. Service Quality Indicators (Passenger Facilities) – Brasília, 2013-2016



Source: Own elaboration with data provided by the Civil Aviation Secretariat (2013, 2014, 2015, 2016)