Global Scientific JOURNALS

GSJ: Volume 7, Issue 10, October 2019, Online: ISSN 2320-9186
www.globalscientificjournal.com

AIR PASSENGER TRANSPORTATION IN BRAZIL

[1] Dr. Murillo de Oliveira Dias,
[1]Coordinator of DBA Programs at Fundação Getulio Vargas, Brazil
[1]Corresponding e-mail: murillo.dias@fgv.br // agenda.murillo@gmail.com

Abstract

In 2019, civil aviation completed 83 years of existence. In this meantime, Brazil has shifted political capital from Rio de Janeiro to Brasilia and the economic center to São Paulo. Airport network expanded to accommodate the increasing demand for air passenger transportation. In this article, the ten principal airports in Brazil were investigated. Key findings pointed to the need for improving the quality of services within the Brazilian airport Networks. Analysis and Discussion compile the present work.

Keywords: Aviation, Civil transportation, Brazilian, Airport.

1.Introduction

This study investigated the civil aviation in Brazil. The ten principal airports in Brazil regarding air passenger transportation are the unit of analysis (Yin, 1988), in this case study.

In 1936, after two years of civil works, the first civil aviation airport in Brazil was inaugurated at Rio de Janeiro: Santos Dumont Airport (SDU) [1]. In 83 years of civil aviation and air transportation in Brazil, the airport network expanded to current 597 airports, including federal, state, municipal concessions, private, air force and army airports, as illustrated in the following Table 1:

[1] SDU is the IATA code (International Air Transportation Association), international sector representative.

Table 1

Airport Network in Brazil, per state. Source: Infraero, 2019

State	Federal	State	Municipal	Concession	Private	FAB (Air Force)	Brazilian Army	Total
Acre	2	0	9	0	0	0	0	11
Alagoas	1	0	4	0	0	0	0	5
Amapá	1	0	4	0	0	0	0	5
Amazonas	3	0	6	0	0	0	0	9
Bahia	2	3	1	5	0	0	0	11
Ceará	1	0	24	1	0	0	0	26
DF (Capital)	0	0	0	1	0	0	0	1
Espírito Santo	1	0	6	0	0	0	0	7
Goiás	1	0	25	0	0	0	0	26
Maranhão	4	0	30	0	0	0	0	34
Mato Grosso	1	0	40	0	0	0	0	41
Mato Grosso do Sul	3	0	20	0	0	0	0	23
Minas Gerais	7	0	36	4	0	0	0	47
Pará	6	0	22	0	0	0	0	28
Paraíba	2	0	13	0	0	0	0	15
Paraná	4	0	39	0	4	0	0	47
Pernambuco	3	0	10	0	0	0	0	13
Piauí	2	0	8	0	0	0	0	10
Rio de Janeiro	4	0	10	2	2	3	0	21
Riop Grande do Norte	0	0	7	0	1	0	0	8
Rio Grande do Sul	4	0	65	0	0	0	0	69
Rondônia	1	3	5	0	0	0	0	9
Roraima	2	0	7	0	0	0	0	9
Santa Catarina	3	0	17	4	1	0	0	25
São Pàulo	3	21	30	8	10	3	1	75
Sergipe	2	0	2	0	0	0	0	4
Tocantins	2	0	15	0	0	0	0	17
Total	65	27	455	25	18	6	1	597

Observe in Table 1 that São Paulo State has 75 airports, the largest number or airports in Brazil. Out from these, two are the most significant in the Brazilian network: Guarulhos International Airport (GRU) and Congonhas Airport (CGH – regional flights).

Other studies attracted scholar attention on the subject, where insightful Brazilian business cases have been widely investigated such as aircraft manufacturer industry (Dias, M., Teles, and Duzert, 2018; Dias, M.O. and Duzert, 2018), and other industries, such as mining industry (Dias, M. O., & Davila, 2018); e-business negotiation (Dias & Duzert, 2017); carmaker industry (Dias, M. O., Navarro and Valle, 2013, Dias, M. O., et al., 2014; Dias, M. O., et al., 2013); non-market forces (Dias & Navarro, 2018); craft beer industry (Dias, M.O. & Falconi, 2018; Dias, M. O., 2018);, public administration (Dias, M. O., 2018); Non-governmental organizations (Paradela, Dias, M. O.; Assis; Oliveira, J.; Fonseca, R. (2019); governmental business negotiation relations (Dias, M. O. & Navarro, 2017); copier manufacturer industry (Dias, M.O., 2012); streaming video industry (Dias, M. O., & Navarro, 2018), business negotiation generational interactions (Aylmer & Dias, M. O., 2018), and debt collection negotiations (Dias, M.O., 2019, 2019b; Dias, M.O. & Albergarias, 2019)

Until 1960, Rio de Janeiro was the Brazilian political and economic center in Brazil. Therefore, SDU Airport was the most prominent one. However, in the first half of the XX Century, every new aircraft generation became bigger, than the predecessor, demanding new and larger runways for safer take-offs and landings. Therefore, in 1957, Galeão Airport was inaugurated with higher runways, and the SDU remained for regional flights, until the present date. The sector has grown exponentially worldwide.

Figure 2 depicts the current ten most prominent airports worldwide, regarding air passenger transportation:

#	Airport	Location	Code (IATA/ICAO)	Passenger/year
1	Atlanta Airport International	Atlanta, Georgia, USA	ATL/KATL	104 171 935
2	Beijing Airport International	Pequim, China	PEK/ZBAA	94 393 454
3	Dubai Airport International	Dubai, UEA	DXB/OMDB	83 654 250
4	Airport International de Los Angeles	Los Angeles,USA	LAX/KLAX	80 921 527
5	Airport International Haneda	Tóquio, Japan	HND/RJTT	79 699 762
6	O'Hare Airport International	Chicago, USA	ORD/KORD	78 327 479
7	Heathrow Airport International	Hillingdon, UK	LHR/EGLL	75 715 474
8	Hong Kong Airport International	Hong Kong, China	HKG/VHHH	70 314 462
9	Pudong Airport International	Shanghai, China	PVG/ZSPD	66 002 414
10	Charles de Gaulle Airport International	Paris, France	CDG/LFPG	65 933 145

Figure 1: Passenger transportation 2018. Source: IATA, 2019

Observe that three out of ten are Chinese airports (PEK, PVG, HKG). Atlanta Airport (ATL) has the largest passenger aviation traffic, approximately half of the Brazilian population (near 215 million people) transported every year. In the next section, Methods and limitations are presented.

2.Methods and Limitations

This article is a qualitative, multiple-methods, combining archival research with descriptive, single case study, which unit of analysis is the civil airport network in Brazil (Yin, 1988). Also, inductive interpretive and reasoning.

This research is also limited to passenger transportation. Cargo freight transportation and other activities such as parking lot administration, shopping, food court administration, among others are not investigated in the present study. Finally, this study is limited to the Brazilian civil aviation legislation and the IATA's international standards (IATA, 2019)

3. Civil aviation in Brazil: ten top airports

The ten busiest civil aviation airports in Brazil are depicted in the following Figure 2:

#	Airport	IATA	Passengers (2018)	City	Brazilian State
1	Airpt. Intl. de São Paulo-Guarulhos	**GRU**	41.134.816	Guarulhos	São Paulo
2	Airpt. de São Paulo-Congonhas	**CGH**	21.637.662	São Paulo	São Paulo
3	Airpt. Intl. de Brasília	**BSB**	17.542.731	Brasília	Distrito Federal
4	Airpt. Intl. Tom Jobim-Rio Galeão	**GIG**	14.761.755	Rio de Janeiro	Rio de Janeiro
5	Airpt. Intl. de Belo Horizonte-Confins	**CNF**	10.256.383	Confins	Minas Gerais
6	Airpt. do Rio de Janeiro-Santos Dumont	**SDU**	9.029.086	Rio de Janeiro	Rio de Janeiro
7	Airpt. Intl. de Viracopos-Campinas	**VCP**	8.715.455	Campinas	São Paulo
8	Airpt. Intl. do Recife-Guararapes	**REC**	8.277.730	Recife	Pernambuco
9	Airpt. Intl. de Porto Alegre-Salgado Filho	**POA**	8.105.932	Porto Alegre	Rio Grande do Sul
10	Airpt. Intl. de Salvador-Dep. Luís Eduardo Magalhães	**SSA**	7.709.293	Salvador	Bahia

Figure 2 Brazilian Airports. Source: Infraero, 2019

Figure 3 depicts airports by state distribution, as follows:

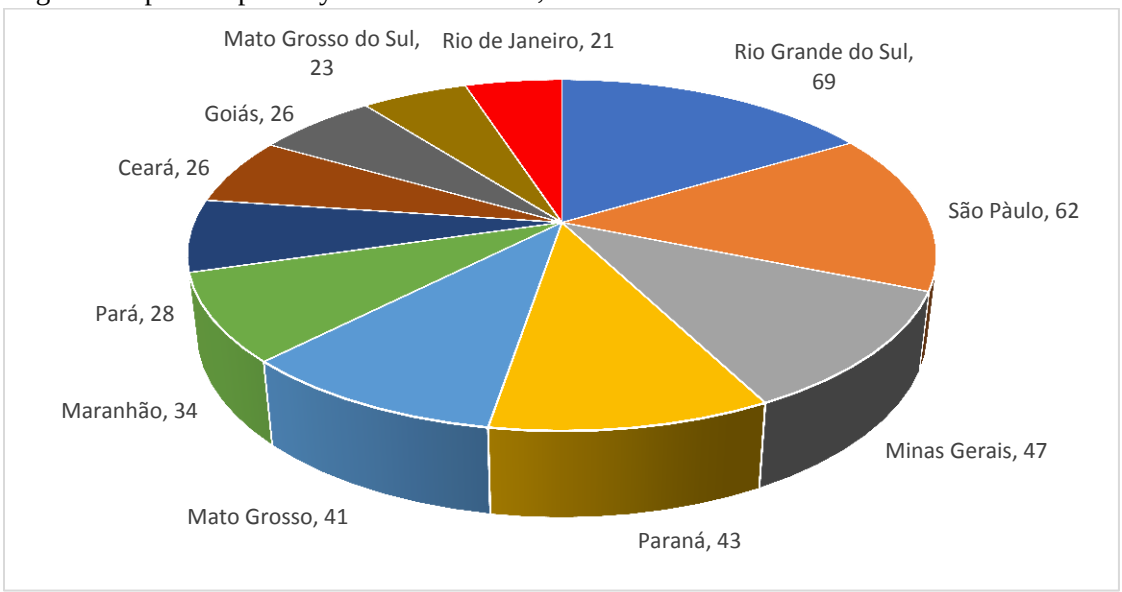

Figure 3 Number of Airports per state. Source: Infraero, 2019

Figure 4 illustrates the ten busiest airports in Brazil:

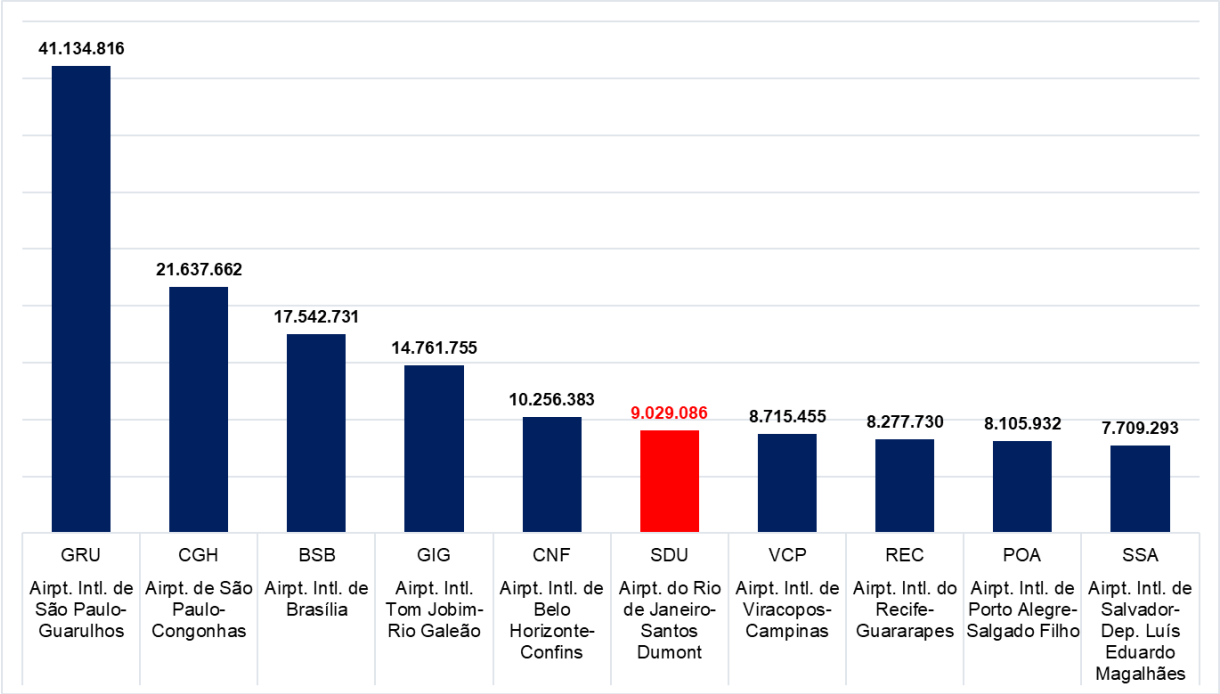

Figure 4 Ten busiest airports in Brazil. Source: Infraero, 2019

Observe in Figure 4 that GRU and CGH (São Paulo airports) are two busiest airports in Brazil, the most significant in passenger transportation. Santos Dumont Airport (SDU), the first to be inaugurated for civil aviation is currently the sixth in passengers transported within the country.

4. Discussion

Civil aviation in Brazil has took off in the last 80 years. In this period, the Republic's capital was moved from Rio de Janeiro to Brasilia in 1961 (it explains why Brasilia Airport is the number three in passengers transported - see Figure 4). If political importance was shifted to Brasilia (Distrito Federal – DF), the economic relevance shifted to São Paulo state (it explains why the two most important airports in the Brazilian network are from São Paulo (see Figure 4).

The air bridge Rio-São Paulo, in 2018 transported four million passengers (SDU, 2019), the most popular (and profitable) Brazilian flight.

This research, in comparison to others, has the advantage of compiling previous research into one, single, up-to-date, comprehensive and current study, encompassing the new cooperative structures in Brazil, also investigating the dynamics of this particular market that has increased its relevance in the Brazilian economic scenario.

5. Future Research

For future research it is encouraged the investigation of the impact on airport network expansion in Brazil, comparing the investments made in infrastructure combined with the federal concessions recently adopted, as well as the impact for the Brazilian economy with the decreasing activities from the Infraero administration (public company that manage SDU airport, among others, for instance). The case will be revisited in the future, to assess airport network

expansion. Also, it is recommended the investigation of customer satisfaction with the current airport network, for expanding the knowledge on airport network in Brazil.

References

Dias, Murillo de Oliveira (2019). Is it Worth Competing at the Bargaining Table? In: Global Scientific Journals. Vol 7, Issue 9, September/2019, pp. 1-14. ISSN: 2320-9186. DOI: 10.13140/RG.2.2.11557.45288

Dias, Murillo de Oliveira; Albergarias, Raphael (2019). Role Play Simulation on Farm Debt: Brazilian Case. In: SSRG International Journal of Humanities and Social Science 6(4), 84-93., ISSN 2394 - 2703. DOI:10.112/gsj.2019.08.26384; DOI: 10.13140/RG.2.2.33770.88000

Dias, Murillo de Oliveira (2019). Teaching Materials On Brazilian Dairy Producer Negotiation. In: Global Scientific Journals. Vol 7, Issue 8, August/2019, pp. 1052-1064. ISSN: 23209186; DOI: 10.13140/RG.2.2.36690.50881.

Dias, Murillo de Oliveira; Albergarias, Raphael (2019). Teaching Materials: Role Play Simulation On Small Business Debt Collection In Brazil. In: International Journal of Management, Technology and Engineering. Vol. IX, Issue VIII, August/2019, pp.237-249, ISSN 2249-7455. DOI:16.10089.IJMTE.2019.V9I8.19.29127.DOI: 10.13140/RG.2.2.36307.12329

Dias, Murillo de Oliveira (2019). Teaching Materials: Role Play Simulation On Individual Business Debt Collection In Brazil. In: Global Scientific Journals (GSJ PUBLISHER). Vol 7, Issue 8, August/2019, pp. 844-859. ISSN: 2320-9186; DOI: 10.13140/RG.2.2.29406.18240. DOI: 10.11216/gsj.2019.08.26134

Dias, Murillo de Oliveira (2019). New Structure on Cooperative Societies In Brazil:In: International Journal of Management, Technology and Engineering. Vol. IX, issue 8, pp. 202-214, August 2019. ISSN 2249-7455. DOI: 10.13140/RG.2.2.26122.82887. DOI:16.10089.IJMTE.2019.V9I8.19.29123

Dias, Murillo de Oliveira; Ribeiro, Ana Paula; Albergarias, Raphael (2019). When customers do not pay: A Winning Negotiation Case in Brazil. In: Journal of Economics and Business. Vol 2, Issue 2, June, 2019, pp. 431-447; ISSN 2615-3726 (Online);ISSN 2621-5667 (Print). DOI 10.31014/aior.1992.02.02.99

Dias, Murillo de Oliveira; Silva, Cleber A.; Lund, Myrian (2019) Brazilian Credit Cooperatives: Cresol Confederation Case. In: IOSR Journal of Business and Management (IOSR-JBM). ISSN: 2278-487X, Vol.21, Issue 5, May 2019, pp. 11-19. DOI: 10.13140/RG.2.2.30215.24487. DOI: 10.9790/487X-2105051119

Dias, Murillo de Oliveira; Teles, Andre (2019). A Comprehensive Overview of Brazilian Legislation on Credit Cooperatives. In: Global Journal of Politics and Law Research, Vol. 7, Issue 4, May 2019, pp. 1-12; ISSN 2053-6593. DOI: 10.13140/RG.2.2.25054.28488

Dias, Murillo de Oliveira (2018) Evolution of Cooperative Societies in Brazil. In: International Journal of Community and Cooperative Studies, Vol.6 No.4, pp.1-11, November 2018.ISSN 2057-262X. DOI: 10.6084/m9.figshare.7834688

Dias, Murillo de Oliveira; Craveiro, F. M. (2019). Brazilian Agriculture Cooperative: Vinícola Aurora Case. In: International Journal of Management, Technology and Engineering. Vol. IX, issue 3, pp. 2551-2561, March 2019. ISSN 2249-7455. DOI: 16.10089.IJMTE.2019.V9I3.19.27743. DOI: 10.13140/RG.2.2.19829.01763

Dias, Murillo de Oliveira; Krein, Jeferson; Streh, Eder; Vilhena, João B. (2018) Agriculture Cooperatives in Brazil: Cotribá Case. In: International Journal of Management, Technology And Engineering,Volume 8, Issue XII, December/2018, ISSN: 2249-7455, pp. 2100-2110, DOI:16.10089.IJMTE.2018.V8I12.17.2243. DOI: 10.6084/m9.figshare.7834214

Dias, Murillo de Oliveira; Ramos Alambert R. Murilo (2018). Credit Cooperatives in Brazil. In: International Journal of Science and Research (IJSR). Volume 7 Issue 10, October 2018, pp. 598-603. ISSN: 2319-7064. DOI: 10.21275/ART20191901.DOI: 10.6084/m9.figshare.7834661

Dias, Murillo de Oliveira; Teles, Andre (2018). Agriculture Cooperatives in Brazil and the Importance for The Economic Development. In: International Journal of Business Research and Management (IJBRM), Volume (9) : Issue (2), December 2018, pp.72-81.DOI: 10.6084/m9.figshare.7832354

Dias, Murillo de Oliveira; Teles, Andre (2019). A Comprehensive Overview of Brazilian Legislation on Credit Cooperatives. In: Global Journal of Politics and Law Research, Vol. 7, Issue 4, Mat 2019, pp. 1-12 -. ISSN 2053-6593. DOI: 10.13140/RG.2.2.25054.28488

Dias, Murillo de Oliveira; Teles, Andre (2019b) Credit Co-Operatives In Brazil: Sicredi Case. In: International Journal of Advanced Research. Volume 7, Issue 4, April 2019, pp. 194-202; ISSN: 2320-5407. DOI: 10.21474/IJAR01/8806. DOI: 10.13140/RG.2.2.35306.16327

Dias, Murillo et al. (2015). Brazilian Fashion Business Dudalina S/A: Case Revisited. In: International Journal of Business and Management Studies. ISSN: 2158-1479. Vol 04(01); p. 11-24. DOI: 10.6084/m9.figshare.7834730

Dias, Murillo et al. (2014). Dudalina S/A: Case Study on How to Overcome Succession Barriers on a Brazilian Family Business. In.Business and Management Review, vol 3, no. 12, special issue Brazil, ISSN 2047-0398, pp. 217-229. DOI: 10.6084/m9.figshare.7834748

Dias, Murillo et. al. (2014). FIAT and Chrysler in Brazil: Anatomy of an Alliance. In: International Journal of Business and Management Studies, vol.3(1), ISSN 2158-1479, pp 1-13. DOI: 10.6084/m9.figshare.7834739

Dias, Murillo, Navarro, R.; Valle, A. (2013). BMW and Brazilian Federal Government: Enhancing the Automotive Industry Regulatory Environment. In: International Journal of Arts and Sciences, volume 06, number 02, pp.551-567. ISSN: 1944-6934. DOI: 10.6084/m9.figshare.7834742

Dias, Murillo, and Teles, Andre (2019). Boeing, Brazilian Federal Government, And Embraer: Golden Share Veto And The Anatomy Of A Joint Venture. In: International Journal of Business and Management Studies, CD-ROM. ISSN: 2158-1479: 07(02):71–80 (2018). DOI: 10.13140/RG.2.2.14972.18563

Dias, Murillo de Oliveira, and Falconi, Davi (2018), The Evolution of Craft Beer Industry in Brazil. In: Journal of Economics and Business, Vol.1, No.4, 618-626.ISSN 2615-3726.DOI: 10.31014/aior.1992.01.04.55

Dias, Murillo de Oliveira (2018). Heineken Brewing Industry in Brazil. In: International Journal of Management, Technology And Engineering (IJAMTES) ISSN: 2249-7455. Volume 8 Issue 9, November/2018, Page No: 1304-1310. DOI:16.10089/IJMTE2156. DOI: 10.6084/m9.figshare.7834343

Dias, Murillo de Oliveira & Davila Jr., E. (2018) Overcoming Succession Conflicts in a Limestone Family Business In Brazil. In: International Journal of Business and Management Review Vol.6, No.7, pp.58-73, August 2018. ISSN: 2052-6407. DOI: 10.6084/m9.figshare.7834703

IATA (2019). Standards. Retrieved from https://www.iata.org/pages/airports.aspx, on October 8, 2019.

IBGE (2019). Rio de Janeiro. Retrieved from https://ibge.gov.br/, on October 8, 2019.

Infraero (2019). Santos Dumont. Retrieved from http://www4.infraero.gov.br/imprensa/noticias/santos-dumont-volta-a-receber-voos-neste-sabado-21-9, on October 8, 2019.

SDU (2019). Histórico. Retrieved from https://www4.infraero.gov.br/aeroportos/aeroporto-do-rio-de-janeiro-santos-dumont/sobre-o-aeroporto/historico/, on October 8, 2019.

Yin, R. (1988) Case Study Research: Design and Methods. Newbury Park, CA: Sage Publications.