

Market share analysis: International direct offer to and from Bogota's International Airport El Dorado (2017-2019)

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Abstract: The objective of this research is to measure the market share generated by commercial passenger transport airlines that operate direct international routes to and from El Dorado International Airport during the study period 2017-2019, as well as to identify the size of airlines' offer and the market leader, and observing its behavior; considering this airport as the main and most important one in Colombia, as well as cataloged and awarded as one of the best airports in South America by the criteria of the recognized and significant Skytrax awards of the aviation industry; Likewise, this work handles a qualitative-quantitative, exploratory and descriptive bibliographic approach based on the synthetic and deductive-inductive methods applied in the process for obtaining the results and revealed in the analysis presented about the market share reflected by the studied airlines, through the quantitative data collected about the direct international routes handled by each one of them, the size of the market and its evolution throughout the study period.

Keywords: Market share, international direct routes, airlines, airport.

Análisis de participación de mercado: oferta directa internacional desde y hacia el Aeropuerto Internacional El Dorado de Bogotá (2017-2019)

Resumen: Esta investigación tiene como objetivo dimensionar la participación de mercado generada por las aerolíneas comerciales de transporte de pasajeros que operan rutas internacionales directas desde y hacia el Aeropuerto Internacional El Dorado durante el periodo de estudio 2017-2019, además de identificar el tamaño de la oferta de las aerolíneas y el líder del mercado, así como la observación de su comportamiento; considerándose a este aeropuerto como el principal y más importante de Colombia además de haber sido catalogado y galardonado como uno de los mejores aeropuertos de Sudamérica en base a los criterios de los reconocidos e importantes premios Skytrax de la industria de la aviación. Asimismo, este trabajo maneja un enfoque cualitativo-cuantitativo, de tipo exploratorio y descriptivo bibliográfico en base a los métodos sintético y deductivo-inductivo aplicados en el proceso de obtención de resultados y reflejados en el análisis expuesto acerca de la participación de mercado manifestada por las aerolíneas estudiadas, a través de los datos cuantitativos recopiladas acerca de las rutas internacionales directas manejadas por cada una de ellas, el tamaño del mercado y su evolución a lo largo del periodo de estudio.

Palabras Clave: Participación de mercado, rutas internacionales directas, aerolíneas, aeropuerto.



I. INTRODUCCION

This research problem lies in the limited studies carried out in relation to the market share of the airlines that operate in this airport, within the international margin, being the objective to determine the size of the international offer and identify the market's leader in relation to El Dorado International Airport of Bogota, during the study period. Through a qualitative-quantitative approach methodology of a bibliographic type, which is based on a synthetic and deductive-inductive method, that helped to obtain the results.

In this way, it's important to consider that air traffic at a general level has shown remarkable growth over the last century, taking in consideration the first commercial flight carried out, which only consisted of 34 kilometers, until now a days, were, the improved aircrafts have the capacity to transport passengers and cargo for more than 46 billion kilometers per year, showing that air transport turns out to be a global network with a tendency to double in volume, in passengers and flights [1].

In the same way, commercial air traffic in Latin America and the Caribbean has been analyzed from several points of view, being one of the most important ones, competitiveness, which refers to the increase of inhabitants' quality of life level to the same extent as the participation and durability over time of international markets does [2], emphasizing then, this factor as a key element in the development of commercial air traffic in the region. Furthermore, the competition degree that a market achieves depends a lot on its economy, the level of an airline's influence at the airport and customer loyalty [3]; identifying the market in the airline industry based upon the origin-destination routes, generating a market leadership to the company that demonstrates a relevant presence within it [4].

II. DEVELOPMENT

El Dorado International Airport was built in 1959 in the northwest part of Bogota city, Colombia's capital, which in that year replaced the old airport "El Techo", functional since 1929 [5]. In the same way, as many other airports inside the Latin American region and around the world, the administration of this airport in terms of development, direction, expansion, maintenance and operation is in hands of the concessionaire OPAIN S.A company, who received the concession in 2008 [6]. This airport has a maximum capacity for 43 million passengers [7], [8], and manages a Category III within the ILS Instrumental System established by the International Civil Organization of Aviation [OACI], and applied by the Civil Aeronautics of Colombia, re-

flecting its advanced technology in their landing system [9]. This airport was also awarded by the Skytrax Awards certifications, recognized as: best regional airport in South America and 4 stars in quality of service since 2016 and as best airport staff in South America since 2017 [10].

In the other hand, it's necessary to conceptualize the qualitative aspects that will be developed in the results: starting with the airlines, that as for [11], are defined as a certified enterprise by the state's civil aviation authority where the airline is established that operate aircrafts with commercial aims throughout scheduled or non-scheduled air transport services, also needing to identify the existence of flag carriers (as the established country's airline) that should make a participation in the international market in order to secure their home country benefits [12]. Like ways, market share is created by the coexistence of airlines' operation, that by [13], is identified as the domain an airline can get inside a determined airport, as well as being dependent of its competitors and each one's ability to create efficiency in order to achieve a greater growth in the market, which leads up to a third conception based in what routes are, considering it as an airline national or international offer, that as [11] describes it, it's based upon the origin and destination city pairs as the places shown on the ticket previously chosen by the passenger, exposed as the initial and ultimate stopping places, respectively.

In the same way, it's necessary to make a mention to what airports means, also known as the infrastructure that builds up the base for the aerial industry development, they're physical platforms that must be accessible for the entry and exit of passengers and airlines, precisely with the objective of guaranteeing the connectivity and competitiveness of the airport through the management of the largest number of airlines based on their capacity, which consequently will also have an impact on the size of the market and therefore of the market share that each operating airline represents [3]; in addition to having gone through a process of being simply runways with terminals, to serving as the connecting point in between routes, airlines and passengers that provide trade opportunities and contribute the basis for the development of air transportation [14].

III. METHODOLOGY

A qualitative and quantitative approach was used to make a detailed description of the study's object for this research. In addition, it was complemented with the application of exploratory and descriptive research by the use of a synthetic and deductive-inductive method.

Therefore, the technique to support the research's

theoretical basis was the compilation of information from secondary bibliographic sources based on the information available on each airports' official web site, publications related to the topic and international air organizations, where it proceeded to collect all the relevant information regarding the subject and those aspects identified as qualitative, being these: airlines, international routes operated directly from and to this airport and the market share by airline, emphasizing the sources' author for information's reliability reasons. In addition, the bibliographic file as a research instrument was used to consolidate the sources found, giving a total of 12 valid sources, identifying basic aspects such as: publication's title, name and surname of the author or entity's name, year of publication, source of consultation, the concept that was highlighted to search and obtain the information and the URL as a direct reference of the consulted site. Once the relevant information sources were selected, they were validated under information's reliability criteria.

IV. RESULTS

The results obtained during the investigation for the El Dorado International Airport are presented and analyzed below:

A. Number of direct international routes operated by airline

In order to determine the number of international routes operated directly by each airline, those routes with connections in cities within or outside of Colombia have been discarded, also eliminating flights that are operated under codes share.

Likewise, the information presented below takes into account the number of international flights per airline regardless whether there are one or more airlines operating the same destination.

In addition, to determine the size of the offer, the number of airlines with direct international operation to and from this airport for each of the years of study has been identified and the variation between them has been calculated.

In this way for 2017, 18 airlines operated from Bogotá airport with international routes, with a minimum increase of one airline for 2018, resulting in 19 operating airlines. Showing that by 2019 the most representative growth in the market was framed in this year as a consequence of the increase of 6 new airlines, and the reduction of one airline that stopped operating (Tame EP), resulting in a total offer of 24 airlines [4].

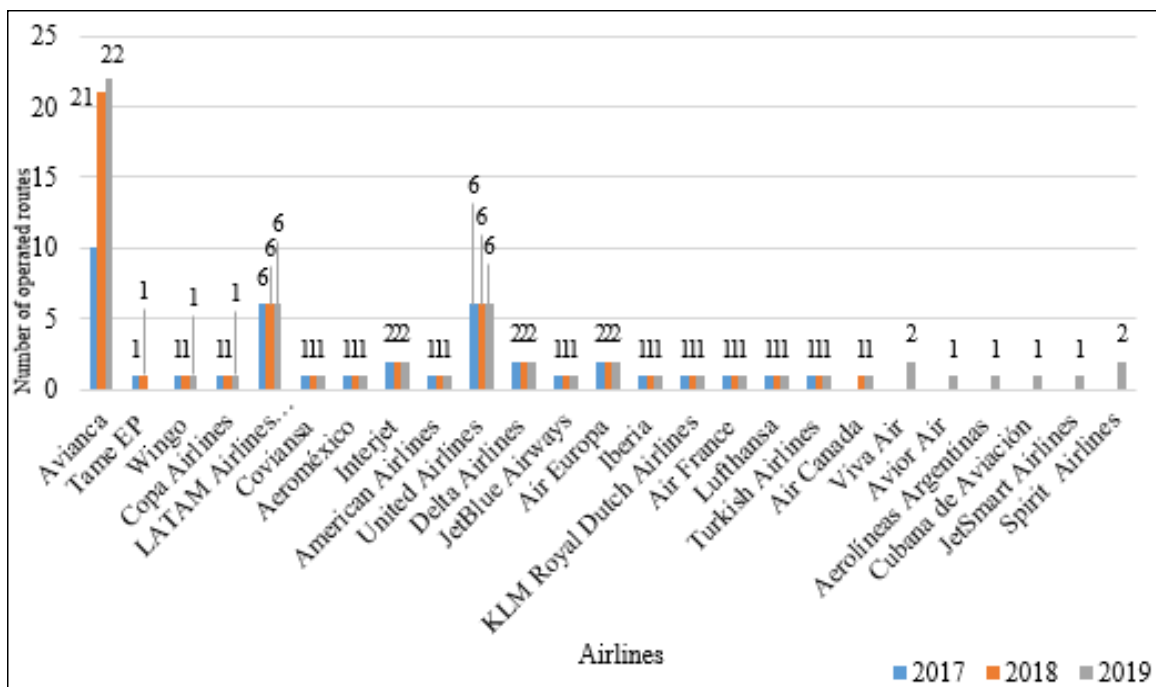


Fig. 1. Number of international direct destinations operated per airline- El Dorado International Airport (2017-2019)

Having already a count on the airlines that operate international routes from and to this airport, the following figure determines the number of direct international routes actively operated by airline to and from El Dorado International Airport, during the study period.

In such a way, in the previous figure it is observed that Avianca maintained a representative growth during the three years of study, highlighting the one presented in 2018 as a good year for the airline due to the growth of 11 routes in respect to the previous year. Meanwhile, United Airlines and LATAM Airlines Group / Colombia, with the largest number of routes after Avianca, maintained their international operation with 6 routes respectively during the period of study, out of a total market of 40, 52 and 60 direct international routes respectively for each year.

For 2019, Spirit Airlines, and Avior Airlines entered the market with two routes each and JetSmart Airlines, Cubana de Aviación, Aerolíneas Argentinas, and Viva Air started operations with one destination, respectively. However, Tame EP went from managing a route for 2017 and 2018 to suspend operations in 2019, showing that this data modifies the market size with a

variation that tents to high up in numbers, since the very first year of study, due to its constant fragmentation caused by the entrance of new airlines and the addition of more routes to some of the existing airlines.

In this way, it's been find important to mention that Avianca is the flag carrier of Colombia, which leads to point out that due to its large experience as a result of its historical trajectory, being recognized as the world's second oldest airline after the Dutch flag carrier KLM, has contributed to its strengthens on its possibility to compete in this airport against other airlines that seems to be younger and with less historical experience. Providing it the opportunity to manage a larger amount of routes' operations and, as consequence, a greater stake within the international market share, that will be previously show [15].

B. Market share by airline

In order to carry out a more in-depth study, the market share per each one of the operative airlines, according to each year of the study, is shown below.

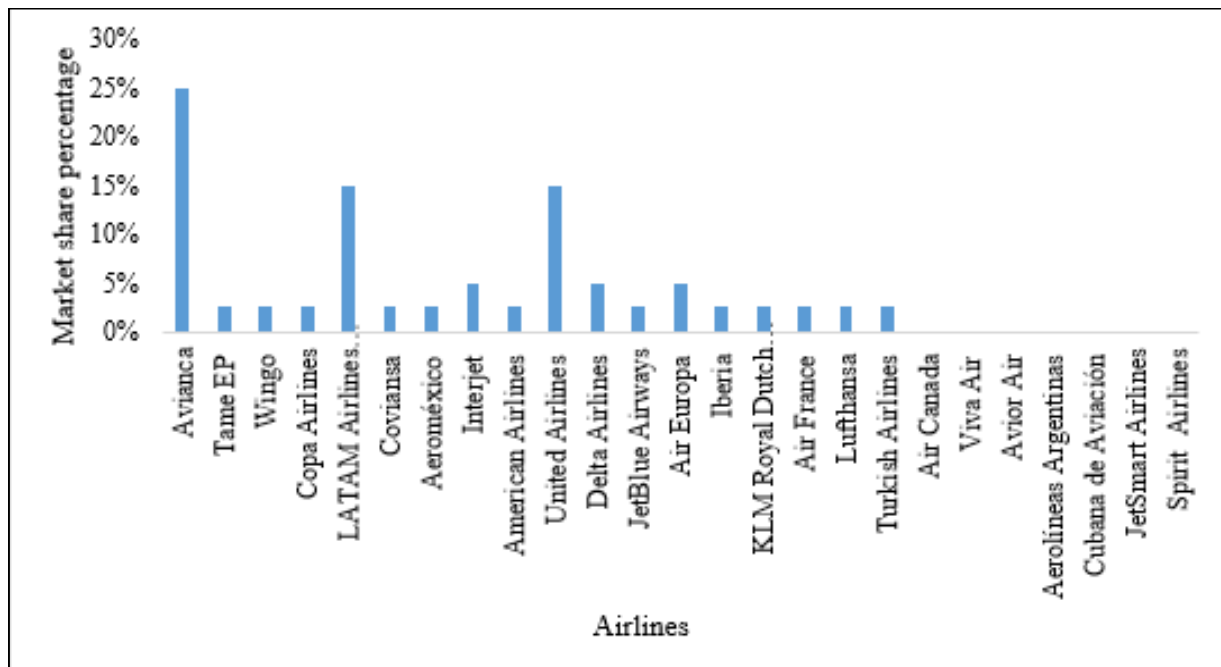


Fig. 2. Market share per airline – El Dorado International Airport (2017)

In figure 2, the market share for 2017 is led by Avianca, Colombian flag airline, with 25%, followed by United Airlines and LATAM Airlines Group / Colombia with 15% each, and the 3% for the rest of each remaining airline, with the exception of Air Europa, Interjet and Delta Airlines, that maintained 5% respectively. All

this in the frame of a market size of 50 international routes divided on each one of the existing airlines for that year.

As in the previous figure, the same market share relationship by airline is presented below for 2018.

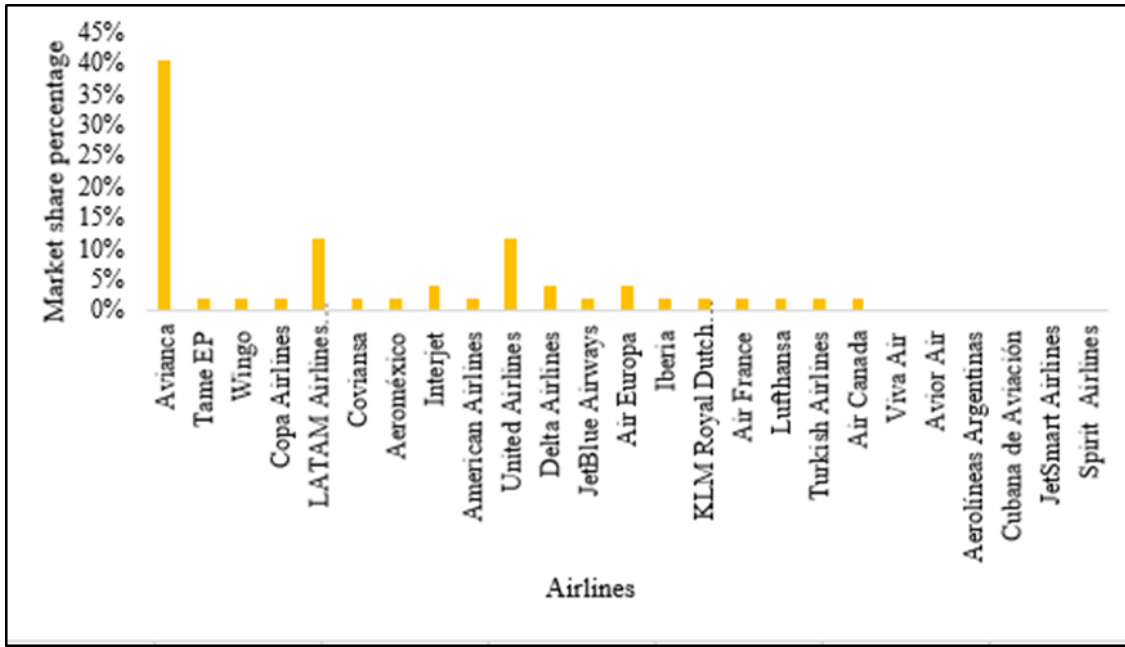


Fig. 3. Market share per airline – El Dorado International Airport (2018)

For 2018, the previous figure shows that the market is still led by the Colombian flag airline, Avianca, with 40%, reflected in the 21 routes operated in figure 1, followed by United Airlines and LATAM Airlines Group / LATAM Colombia with 12% each, maintaining the same percentage of 4% and 2% of participation for the remaining airlines. In this way, numbers have shown that the stake for Avianca has increased, reflected on how it doubled its volume regarding to its internatio-

nal operation, while LATAM decreased its percentage even though it maintained the same number of routes, showing a direct relation with the growth on the market size to 52 routes, in comparison of last year, and the entrance of one more airline to the frame (Air Canada).

Finally, and as for 2017 and 2018, the figure below also shows the market share by airline for 2019, the last year of the period selected for the study.

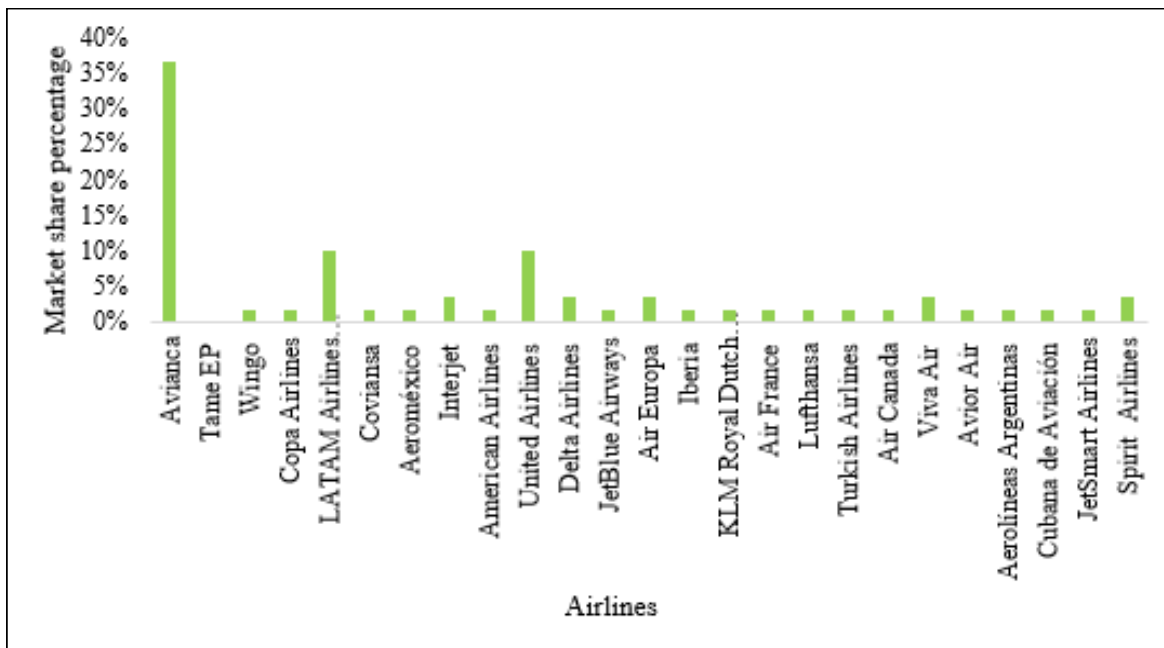


Fig. 4 Market share per airline – El Dorado International Airport (2019)

Likewise, in 2019 Avianca airline maintained its leadership in the market with 37% and 22 regular routes, presented in figure 1. In addition, with the entry of Spirit Airlines and Viva Air for the mentioned year, with 2 routes operated per each one of them, they were added with the 3% to the Air Europa, Interjet and Delta Airlines stake, leaving the rest of the existing airlines with 2%, with the exception of Tame EP, which for 2019 suspended its international operation. This shows up that, regardless Avianca increased one more route to operation its percentage stake was reduced, also showing a direct relation to the increase in the market's size to 60 routes and the entrance of new airlines that split even more the market and made the leader's participation smaller.

Once the results of the research have been exposed, the investigation agrees with the study under the fact that the participation and durability over time of international markets generate competitiveness [2], demonstrated in the offer's increase of direct international routes operated from and to El Dorado International Airport, due to the start of operation of new airlines during the study period and the increase in routes of existing airlines, such as Avianca, stating the competitiveness of this airport.

In addition, the study agrees with the result found that the degree of competition that reaches a market is closely related to the level of incidence of the airline at the airport [3], highlighting the example of Avianca, which being the flag carrier of this country maintains its leadership in the market thanks to the considerable

increase in international routes, especially for 2018, demonstrating its high participation and attendance in the international offer of this air terminal.

In the same way and in relation to what was previously mentioned, Avianca's participation as flag carrier clearly shows that the participation of this type of airlines within the international market actually works for a reassurance of the benefits that operating international routes from and to a determined airport, and with such a high percentage of the sake, represents for the home country's benefits, as defined by [12], also showing that it benefits the airline as well that, in this case, played with a monopoly over the other airlines, reflected on the shown percentages that this airline managed during each one of the years of study.

Finally, having carried out the research analyzing market share based on the offer, that is, airlines and routes, as the identification of the market in the industry through origin-destination routes [4].

V.CONCLUSIONS

In conclusion, it is settled that the international market of Bogota's airport is in a growth phase, which is represented on the increase of airlines operating to and from this airport, especially for the last year of study (2019) that presented a variation of + 26% in respect to the previous year, with a total of 24 operating airlines.

On the other hand, regarding the number of routes operated by airline, it was evidenced that Avianca obtained the highest number, a part from presenting a significant growth for 2018, with a variation of + 110%

compared to the previous year, with a total of 21 international routes. In addition, its position as a flag carrier promotes the entry of new airlines that seek to split concentration of the international offer of a single airline and divide the market to gain share, thus generating greater competitiveness. Without leaving aside the fact that shows that, even though this objective is seek by the multiple airlines that entered this market, and in general, any other market, being in the position of a flag carrier and having such a long trajectory within the operation of the international offer has some mutual benefits for the home country and the airline, especially if it has such a big stake as own in participation, reflected on the monopoly that this airline has generated throughout its operational years.

Finally, in the market share analysis it can be seen that the effect caused by the entry of new airlines for 2019 had a direct impact on Avianca's market share with a reduction of 3 percentage points compared to the previous year, obtaining 37% participation for that year, ratifying the aforementioned.

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