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An Assessment of the Expansion Strategy followed by Avianca Airlines: Period 2008-2012

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Abstract

Purpose: This article aims to apply to the case of Avianca Airlines the Analytical Model for the Assessment of Airline Expansion Strategies developed by Moreira (2014) in order to explain the rationale of the expansion strategy followed by this airline and indicate other possible expansion strategies.

Design/methodology/approach: This article is a case study in the sense that it aims to arrive to broad generalizations based on the collected evidences, focusing on one of the most traditional airlines in the world. This article is a positivist case study, based in the positivist understanding; because it is supported by objective facts of the situation which are informed by the researcher's interpretive understanding according to it is recommended for this type of study.

Findings: The application of the Analytical Model for the Assessment of Airline Expansion Strategies above referred was successful, considering that the model was able to explain a wide range of complex aspects of the Avianca's development. Thus, being one of the oldest airlines in continued operation in the world, the expansion process of this airline is connected to many political, sociological and economic facets - ie., its general environment - of its mother country, Colombia. The analytical model offered the opportunity to explore these issues in a detailed manner, adding a broader comprehension of this airline that goes beyond its operating and economic analysis.

Originality/value: They reside on the fact that this is the first time that this analytical model is applied to study extensively an actual situation. Besides, airlines in Latin America have not been widely covered by the academia and this is an opportunity to begin to fill this gap. Furthermore, the referred analytical model is applicable to organizations or firms that operate in other industries if the proper adjustments are made.

Implications: The implications for the academic research are to understand that the reasons for the success or failure of an airline in an expansion process may be explained by the suitability between the expansion strategy followed by this airline, its business model, its operating environment and its general environment. Moreover, this article demonstrates that the analysis of the suitability of the expansion strategy followed by a specific airline may be made in the light of a solidly founded analytical framework.

Keywords: airline expansion strategies, analytical model, airline business models, industry forces, general environment, generic expansion strategies, Avianca, Taca.

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1. Introduction

This article deals with the expansion strategy followed by Avianca (which includes Avianca itself and several subsidiaries) in the period 2008-2012 adopting as analytical reference the "Analytical Model for the Assessment of Airline Expansion Strategies" developed by Moreira (2014). This article is a case study in the sense that it aims to arrive to broad generalizations based on the collected evidences, according to Yin's classification (Yin, 1993). It focuses on one of the most traditional airlines in the world. This study is a positivist case study, based in the positivist understanding; because it is supported by objective facts of the situation which are informed by the researcher's interpretive understanding according to it is recommended for this type of study (Cepeda and Martin, 2005; Benbasat et al, 1987).

Avianca was chosen as a case of study to apply the theoretical model referred above because it is one of the most traditional airlines in the region and it is one of the oldest airlines in continued operation in the world. Besides, by starting in 2010 a merging process with Taca, another traditional airline in the region, Avianca became a pioneer of this expansion strategy in Latin America. Continuing its expansion, Avianca began its process to become a public company by submitting a draft registration statement for confidential review to the Securities and Exchange Commission (SEC) on June 24, 2013. As a consequence, many important information related to the fiscal years of 2011 and 2012 became public, which, in addition to the statistical data afforded by the International Civil Aviation Organization (ICAO), made possible a deeper analysis of this remarkable airline. Apart from that, Latin America has not been exhaustively covered by the academia in the air transport industry studies. Probably, the unavailability of public and reliable information prevailing until now explains, at least partially, the absence of interest by the scholars.

2. The analytical model for the assessment of airline expansion strategies

According to the Analytical Model for the Assessment of Airline Expansion Strategies (Moreira, 2014) three groups of elements should be considered in the formulation of an expansion strategy of an airline. The first group of elements is the airline business model which indirectly defines the core competencies of an airline. The Boeing Company (2007) classifies the airline business models considering two dimensions: stage length (short, medium and long haul) and the level of services supplied (low cost, mix offering and full service). From the combination of these operating characteristics eight airline business models are created: low fares, regionals, short/medium haul independents, global network, all premium/business, long haul independents, broad network and charter/inclusive tours. The figure 1 below illustrates the Boeing Airline Business Model.

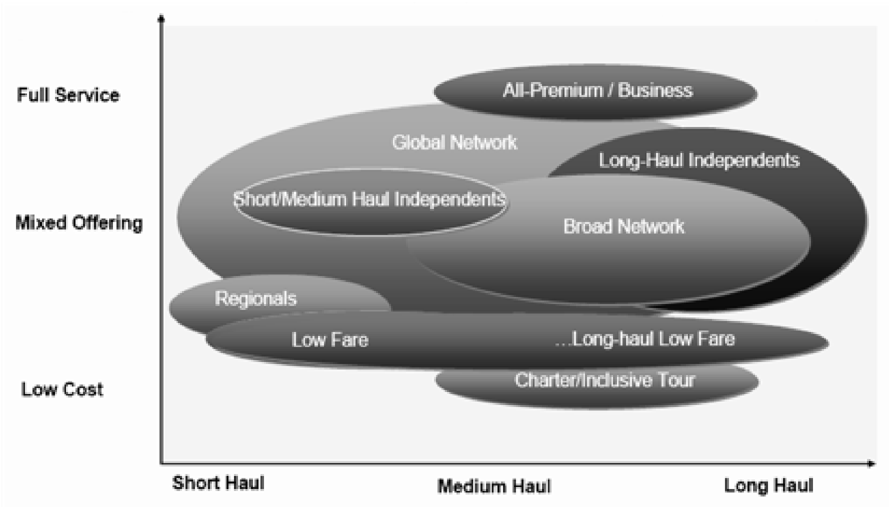

Figure 1. Airlines Business Models. (Boeing Company. (2007). Airline Strategy and Business Models. A*irline Planning Seminar's supporting media*. Quoted by Moreira, Mauricio E. (2014). An analytical Model for the Assessment of Airline Expansion Strategies. *Journal of Airline and Airport Management*, 4(1))

The second group of elements is the industry environment, which refers to the airline's external environment that influences most directly its operations. The industry environment may be analysed by the Porter's Five Forces Competition Model (1983) to which is added the sixth force, a concept formulated by Nalebuff and Brandenburguer (1997). The Porter's five forces are suppliers' bargaining power, buyers' bargaining power, substitute products, new entrant threat and competitors' rivalry. The Nalebuff and Brandenburguer's sixth force in the present case are the alliances ("complementors") and the government.

The third group of elements is the general environment which may be understood as being the external environment which influences indirectly a firm and involves general aspects affecting more than one specific industry. It encompasses economic, demographic, political, legal, social, cultural, technological and natural aspects (Kotler & Keller, 2011).

These three groups of elements indicate the most compatible expansion strategy that a firm can follow in terms of scope and process of implementation as described below. According to Hitt, M.A., Ireland, R.D. & Hoskinson, R.E. (2014) the expansion strategies may be classified according to the scope of the business involved, as follows: concentrated growth, vertical integration, horizontal integration or diversification. Expansion strategies may also be classified according to their process of implementation which may be internal growth, mergers and acquisitions, or alliances.

As discussed above, there are eight airline business models (broad network, global, short haul/medium haul independents, long haul independents, all premium/business, regional, charter/inclusive tour and low fare). On the other hand, there are six aspects of the industry environment to be considered (suppliers' bargaining power, buyer's bargaining power, substitute products threat, new entrants threat, competitors' rivalry and the sixth force: alliances and government). Finally, there are eight elements related to the general environment (economy, demography, politics, legal, social, culture, technology and natural environment). The model is shown in the figure 2.

Aiming to create a score to help the growth strategy selection, each dimension of the industry environment is divided into two possibilities ("high "and "moderate or low"). Similarly, each dimension of the general environment is split into two possibilities ("favourable" and "unfavourable"). Thus, these three groups of elements are combined individually with possible growth strategies, which are classified by scope and growth process. Each combination is classified according to a generic value, receiving the designation "Y", if the combination makes sense; "N" if the combination doesn't make sense; or "I" if it is indifferent.

Combinations between airline business models and growth strategies types (related to both scope of business involved and process of implementation) that made no sense (therefore receiving the designation "N") were eliminated. For instance, low fare carriers don't make alliances with other carriers or put in practice growth strategies involving diversification and, this being so, there is no reason to take these combinations into account. The table 1 summarises this discussion.

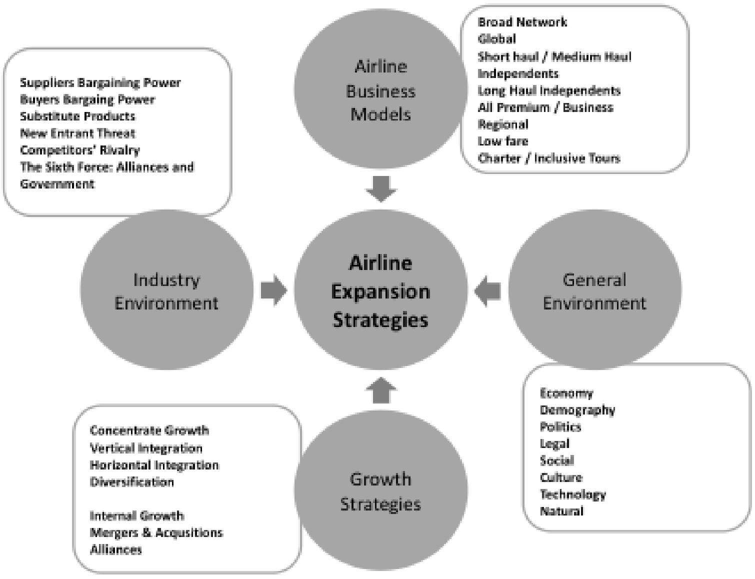

Figure 2. Analytical Model for the Assessment of Airline Expansion Strategies. (Moreira, Mauricio E. (2014). An analytical Model for the Assessment of Airline Expansion Strategies. *Journal of Airline and Airport Management*, 4(1))

	Scope of Business Involved			
Airline Business Model	Concentrate growth	Vertical integration	Horizontal integration	Diversification
Broad Network	Y	Y	Y	N
Global	Y	Y	Y	N
Short haul / Medium haul independents	Y	Y	Y	N
Long haul independents	Y	Y	Y	N
All premium	Y	N	N	N
Regional	Y	N	Y	N
Charter / Inclusive tours	Y	Y	Y	N
Low fare	Y	N	Y	N

	Process of Implementation		
Airline Business Model	Internal growth	Merger and acquisitions	Alliances
Broad Network	Y	Y	Y
Global	Y	Y	Y
Short haul / Medium haul independents	Y	Y	Y
Long haul independents	Y	Y	Y
All premium	Y	Y	N
Regional	Y	Y	Y
Charter / Inclusive tours	Y	Y	N
Low fare	Y	Y	N

Table 1. Airline Business Models versus Growth Strategies Types. (Moreira, Mauricio E. (2014). An analytical Model for the Assessment of Airline Expansion Strategies. *Journal of Airline and Airport Management*, 4(1))

For the other combinations if the specific combination is assessed as Y, it receives a mark of 1; if it is assessed as "N", it receives a mark of -1; and if it is indifferent, it receives a mark of 0. By adding marks for each combination a score may be created, indicating how adequate this specific growth strategy is to the airline business model, industry environment and general environment.

	Scope of the Business Involved			
Industry environment in the airline business	Concentrate growth	Vertical integration	Horizontal integration	Diversification
Suppliers' bargaining power				
High	N	Y	I	Y
Moderate or Low	I	I	I	I
Buyers's bargaining power				
High	N	Y	I	Y
Moderate or Low	I	I	I	I
Substitute products threat				
High	N	Y	I	Y
Moderate or Low	I	I	I	I
New entrants threat				
High	Y	Y	Y	Y
Moderate or Low	I	I	I	I
Competitors' rivalry				
High	Y	Y	Y	I
Moderate or Low	I	I	I	I
The Sixth Force: Alliances and Government				
Important	I	I	I	I
Not important	I	I	I	I

	Process of Implementation		
Industry environment in the airline business	Internal growth	Merger and acquisitions	Alliances
Suppliers' bargaining power			
High	N	I	Y
Moderate or Low	I	I	I
Buyers's bargaining power			
High	N	I	Y
Moderate or Low	I	I	I
Substitute products threat			
High	N	I	Y
Moderate or Low	I	I	I
New entrants threat			
High	N	I	Y
Moderate or Low	I	I	I
Competitors' rivalry			
High	I	Y	Y
Moderate or Low	I	I	I
The Sixth Force: Alliances and Government			
Important	I	I	Y
Not important	I	I	I

Table 2. Industry's Six Forces versus Growth Strategies Types. (Moreira, Mauricio E. (2014). An analytical Model for the Assessment of Airline Expansion Strategies. *Journal of Airline and Airport Management*, 4(1))

Besides, the model assumes that the elements of the general environment and the elements of the industry environment have not a uniform impact on the selection of a growth strategy. In order to deal with this aspect, the model admits the introduction of weights that may give more relevance to one or more aspects of the general environment and the industry environment. For instance, probably the element "Economy" and the element "Competitors' Rivalry" are more relevant than the other elements and as a consequence they should receive a higher weight. In the present article, the tables used were built using the weight 2 for the elements "Competitor's Rivalry" (Industry Environment) and

"Economy" (General Environment), supposing that both have the highest impact on the growth strategy chosen.

The total number of combinations generated was 904,736. This value is the result of the multiplication of 8 (number of airline business models considered), by 4 (number of growth strategies types according to the scope of business involved), by 3 (number of growth strategies types according to the process of implementation), by 2 powered to 6 (6 industry forces each one corresponding each to 2 possibilities – high versus moderate and low), by 2 powered to 8 (8 general environment aspects each one corresponding to two possibilities – favourable versus unfavourable), which results 1.572.864, minus 668,128, which is the number of combinations of airline business models with growth strategies types that do not make sense.

	Scope of the Business Involved			
General Environment Aspects	Concentrate growth	Vertical integration	Horizontal integration	Diversification
Economy				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Demography				
Favorable	Y	Y	Y	Y
Unfavorable	N	I	Y	Y
Politics				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Legal				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Social				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Culture				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Technology				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y
Natural				
Favorable	Y	Y	Y	Y
Unfavorable	N	N	I	Y

	Process of Implementation		
General Environment Aspects	Internal growth	Merger and acqusitions	Alliances
Economy			
Favorable	Y	Y	I
Unfavorable	I	Y	Y
Demography			
Favorable	Y	Y	Y
Unfavorable	I	Y	Y
Politics			
Favorable	Y	Y	Y
Unfavorable	N	N	I
Legal			
Favorable	Y	Y	Y
Unfavorable	N	N	I
Social			
Favorable	Y	Y	Y
Unfavorable	N	N	I
Culture			
Favorable	Y	Y	Y
Unfavorable	N	N	I
Technology			
Favorable	Y	Y	Y
Unfavorable	N	I	I
Natural			
Favorable	Y	Y	Y
Unfavorable	N	N	I

Table 3. General Environment Aspects versus Growth Strategies Types. (Moreira, Mauricio E. (2014). An analytical Model for the Assessment of Airline Expansion Strategies. *Journal of Airline and Airport Management*, 4(1))

3. Brief historical information about Avianca

Avianca is the second oldest airline in operation worldwide and was founded on December 5th 1919, following KLM that was founded on October 7th in the same year. The airline was created by a group formed by Colombians and expatriated German entrepreneurs under the name of Sociedad Colombo-Alemana de Transportes Aereos - SCADTA, in the city of Barranquilla. As almost all airlines being formed at that time, SCADTA began its operations very modestly establishing local services with small equipment. Since the beginning SCADTA has been managed by the German partners and this would be reason for tensions in the years before the World War II. To hide the strong presence of German nationals in SCADTA's control, Pan Am bought 84% of the shares of the Colombian airline. However, this mechanism was reversed later in 1940 by the establishment of a joint-venture with SCADTA's major competitor, Servicio Aéreo Colombiano – SACO, under the leadership of Pan Am and the Colombian Government. Thus, Aerovías Nacionales de Colombia – Avianca was incorporated in Barranquilla in June 1940.

In the post war the Colombian domestic aviation market witnessed the surging of a plenty of short living airlines which were created taking advantage of the availability of low priced flight equipment. In this context, by combining internal growth with the acquisition of small airlines Avianca expanded its regional and domestic network and has extended services to New York (1949), Lisbon, Rome, and Paris (all in 1950).

During the 1970's Avianca experienced a great international expansion achieving the summit in 1976 by establishing services between Bogota and Frankfurt, which were operated by Boeing 747s. This florescent period came to an end in the 1980's when the airline cumulated enormous debts. This situation of insolvency would be aggravated by the anti-drug efforts of the American Government that in practice prompted Avianca to retreat from the American-Colombian cargo market. In addition, in 1991, air transport was deregulated in Colombia increasing much the competition both in domestic and in the international markets, impacting severely Avianca. This regulatory change associated with the Avianca's decadency has required a sharp restructuring in 1994 when the dominant shareholder - Grupo Empresarial Bavaria, a major diversified local group- implemented radical measures to reduce costs and improve efficiency followed by a strong marketing campaign.

In March 2003 Avianca filed for Chapter 11 bankruptcy protection in the United States and has left from it in December 2004 under the new name Aerovías del Continente Americano and retaining the brand Avianca. In the same time the Brazilian conglomerate Grupo Synergy, which had created in 2002 the Brazilian airline Oceanair (renamed to Avianca Brasil in 2010), bought Avianca. In the following year Avianca acquired Tampa Cargo from the Dutch carrier Martinair and in October 2009 Grupo Synergy and Grupo Taca announced a strategic merger aiming to create in the following years the largest Latin American airline in terms of fleet size.

TACA was established in 1931 in Tegucigalpa, Honduras, by the New Zealander Lowell Yerex. During the 1940s TACA opened branches in several countries in Latin America including Brazil, Colombia and Venezuela and in 1961 TACA was transferred to San Salvador adopting the Salvadoran flag. In 2000 TACA moved its operating certificate to Costa Rica because El Salvador was downgraded to the safety rating Category 2 by the U. S. Federal Aviation Administration – FAA. However, the TACA International Airlines' headquarter was in El Salvador where its hub was located. During the 2000s TACA tried to be listed in the New York Stock Exchange but it was not successful. In January 2011 TACA International Airlines (the mother company of its group) operated in 22 airports and its partners operated in more 25 airports.

TACA International Airlines whose name stands for Transportes Aéreos del Continente Americano was the company leader of the TACA group, which included by 2011 LACSA - Lineas Aéreas Costarricenses, and TACA Peru. TACA Regional was a business unit that included the partners Aviateca (Guatemala), Islena (Honduras), La Costeña (Nicaragua), Sansa Regional (Costa Rica) and Aeroperlas Regional (Panama). The partners of TACA Regional were small airlines which operated turbo props such as the ATR 42, Cessna Caravans, Shorts SD 360 and De Havilland Twin Otters.

LACSA was established in 1945 by Pan American World Airways, by the Costa Rican Government and by Costa Rican private interests and it was designed to be the Costa-Rican national carrier. In 1959 the regional lines were transferred to Sansa. LACSA operated in around 20 airports in North, Central and South Americas and its hub was in San Jose at Costa Rica.

TACA Peru was founded in 1999 as Trans Am and in 2000 it was acquired by the TACA group. By 2011, TACA Peru served more than 20 airports and had its hub in Jorge Chavez International Airport at Lima. As LACSA, its operation was totally integrated to the parent company TACA International Airlines. It is interesting to observe that the relationships between the number of airports served by LACSA and TACA Peru and the number of aircraft in their fleets was about five times (very low frequency and sparse services), it being virtually impossible to these airlines to operate except on a code-share basis with their parent company.

Probably the multiple carrier operating strategy was a consequence of the market fragmentation and was an alternative to achieve operational and scope economies exploring intensively the opportunities afforded by the bilateral agreements. Besides, this intricate network created a high barrier to entrance to new competitors and apparently was the single possible way to compete against the larger American carriers. The merge of Avianca and Taca received the regulatory approvals in April 2010 and a very successful IPO happened in the Colombian stock exchange in April 2011, which achieved an oversubscription of five times the minimum value. The ownership of the new airline Avianca-TACA when the merge took place was 67% to Grupo Sinergy and 33% to Grupo TACA, being Roberto Kriete (CEO of TACA) the Chairman of the Board and Fabio Villegas (CEO of Avianca) the Chief Executive Officer.

In November 2010, Avianca-Taca started the process to get in Star Alliance simultaneously as COPA did and became its member in June of 2012. In May of 2013 Avianca-Taca retired the Taca brand and the association of airlines was renamed as Avianca Holdings S.A.

By the end of 2012 Avianca Holdings' (based in Panama) fleet in service was composed by 163 aircraft, as follows: 10 Airbus A318, 32 Airbus A319, 51 Airbus A320, 5 Airbus A321, 9 Airbus A330, 1 Airbus A330F, 11 ATR-42, 5 Boeing 767, 12 Cessna Caravan, 12 Embraer E-190, 5 Fokker 100 and 10 Fokker 50. At the same date, Avianca Brasil's fleet was composed by 32 aircraft, being 7 Airbus A318, 4 Airbus A319, 7 Airbus A320 and 14 Fokker F28. It should be noted that Avianca Brasil has not ownership relationship with Avianca Holdings. Actually, some shareholders of Avianca Brasil are also shareholders of Avianca Holdings.

By the end of 2012 the ownership composition of Avianca Holdings was 17.7% of preferred shares listed on the Colombian Stock Exchange (Bolsa de Valores de Colombia); approximately 70.3% of its voting common shares owned by Synergy Aerospace Corp., a corporation controlled by Mr. Germán Efromovich; and approximately 29.0% of its voting common shares owned by Kingsland Holdings Limited, a corporation controlled by the Kriete family.

4. The airline business model followed by Avianca

By the end of 2012 Avianca Holdings operated an extensive route network from its hubs located in Bogotá (Colombia), Lima (Peru), San Salvador (El Salvador) and San José (Costa Rica). Passenger and cargo services involved more than 5,000 weekly scheduled flights to more than 100 destinations in over 25 countries around the world. Its strategic cornerstones were: "Enhance customer loyalty through superior customer service and a unique culture of 'Excelencia Latina'; Focus on achieving synergies from the Avianca-Taca combination to increase revenues and reduce costs; to pursue opportunities for profitable growth in its passenger segment; grow the cargo operations; and expand the LifeMiles (loyalty) program". The map below shows the markets covered by Avianca Holdings flights in 2012.

Tables 4 and 5 below illustrate the relative importance to Avianca Holdings the markets it serves. As may be noticed, by far the domestic market of Colombia is the most important one for this airline followed by North America and non-regional Central America. Besides, it may be observed that the most important hubs for Avianca Holdings are, in order, Bogota, San Salvador, Lima and San Jose.

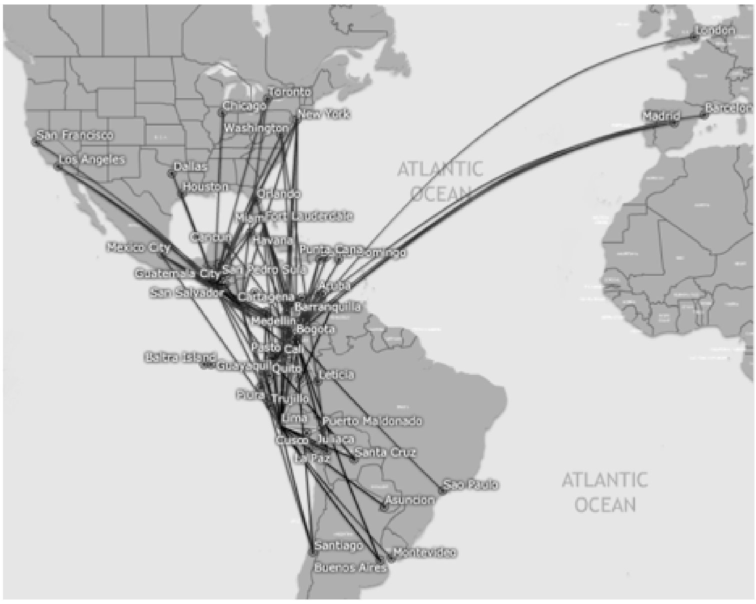

Figure 3. Avianca Holdings Route Map. (Flightglobal; www.flightglobal.com)

Year	2011	2012
Domestic Colombia	46,2%	48,7%
North America (1)	16,6%	14,9%
Lower South America (2)	6,2%	6,4%
Upper South America (3)	7,5%	7,2%
Europe	2,0%	1,9%
Central America (non regional)	10,8%	10,0%
Caribbean	1,6%	1,7%
Domestic Peru	2,6%	4,2%
Domestic Ecuador	5,1%	4,2%
Regional Central America	1,5%	0,8%
Total	100,0%	100,0%

Table 4. Distribution of revenue passengers of Avianca Holdings in each of the different regions measured by destination. (Avianca Holdings S.A. *Prospectus FORM F-1 Registration Statement*, US Security Exchange Comission - SEC, 2013 June 24th). Notes: (1) includes Mexico; (2) Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay; (3) Colombia, Venezuela, Peru and Ecuador

Taking in account the network operated by Avianca Holdings and its strategic definitions above summarized, one may classify this airline as being a "Broad Network" airline, according to Boeing's Airline Business Model.

Hubs and other origins	Scheduled departures per week	Number of passengers carried (both directions)	
		2011	2012
Bogota - domestic	2.114	8.358.272	8.949.632
Bogota - international	544	2.467.799	2.634.526
Bogota total	2.658	10.826.071	11.584.158
San Salvador	536	1.960.642	2.204.902
Lima - domestic	28	56.275	130.175
Lima - international	296	1.409.855	1.021.389
Lima total	324	1.466.130	1.151.564
San Jose	236	942.311	900.049
Other	776	2.118.480	2.160.158
General total	4.530	17.313.634	18.000.831

Table 5. Scheduled services of Avianca Holdings - summary by hub and other origins. (Avianca Holdings S.A. *Prospectus FORM F-1 Registration Statement,* US Security Exchange Comission - SEC, 2013 June 24th). Note: Reflects destinations served and scheduled flights as per December 31st 2012

5. Avianca Holding industry environment

Because the hubs of this airline are located in Colombia, Peru, El Salvador and Costa Rica these countries will be considered as being the main environments in which this airline operates. The assessment of the industry environment (or the operating environment) will be made separately in accordance to the four main markets that correspond to the hubs mentioned above. Besides, the analysis will be conducted following the Airline Expansion Strategies Model developed by Moreira (2014) and the emphasis will be given to the following aspects: market penetration ratio of the air transport industry, historical evolution of the demand, the industry concentration, and the role played by the Government and the alliances.

5.1 Market penetration

By analyzing the penetration ratio of the air transport in a certain market in parallel with other indicators one may have an idea of how intense is the rivalry among the players in this market. Thus, if the penetration ratio is high there is an indication that if a competitor has the intention to grow it will have to conquer market from the other competitors and this probably will trigger a process of retaliation from the latter ones. In these conditions the rivalry among the players tends to be high. To assess the penetration ratio in a specific market it is needed to make a comparison with the penetration ratios existing in similar markets in the same region. Notwithstanding, it is required to equalize the markets under comparison. In this paper, following what was made in previous works (Air Transport Action Group – ATAG, 2014), each country was plotted in a chart in which the abscissa corresponds to the respective GDP per capita and the ordinate corresponds to the enplaned passengers per capita (domestic plus international). Besides, among these points, which represent the countries, a regression curve is plotted. This curve indicates the median expectation of the embarked passengers per capita for each level of GDP per capita. Figure 4 shows the total enplaned passengers and GDP per capita in 2012 in the largest countries in Latin America and Caribbean.

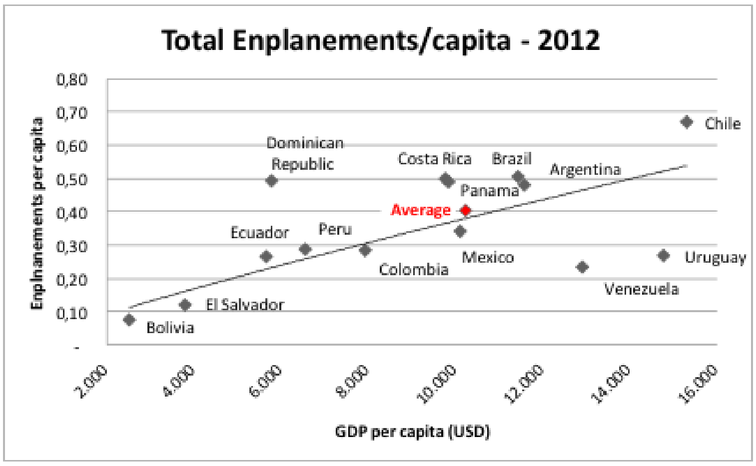

Figure 4. Total Enplaned Passengers and GDP per capita in Latin America and Caribbean in 2012. (International Monetary Fund, World Economic Outlook Database, 2014; International Civil Aviation Organization, www.icao.int; Comisión Latinoamericana de Aviación Civil - CLAC, http://clacsec.lima.icao.int; AeropuertosArgentinos.com, www.aeropuertosarg.com.ar; Instituto Nacional de Estadísticas e Informática – INEI, Peru, www.inei.gob.pe).

Notes: 1) GDP in current 2012 USD. 2) The average point was not used in the calculation of the regression line

Figure 4 shows that the market penetration ratios of the air transport in Colombia, Peru and El Salvador are close to what should be expected considering the wealth of the correspondent economies measured by their GDP per capita. In this manner, in the year of 2012 the penetration ratios of air transport in Colombia, Peru and in El Salvador were 0.28, 0.29 and 0.12, respectively. In parallel, the penetration ratio in Costa Rica is significantly above the regression curve in the Chart 1 and corresponds approximately to 0.50. This indicates that the total enplanements in Costa Rica is much higher than the value of its GDP would allow one to expect. In Costa Rica, the high penetration ratio is surprising because domestic traffic is very small. Actually, the domestic enplanements in Costa Rica correspond to just roughly 5% of the total enplanements made in this country. The reason for the high number of enplanements in Costa Rica is the large size of the inbound ecotourism market from foreign countries. In this manner, in 2008 the tourism sector contributed 7.2% of the GDP of Costa Rica and afforded 22.7% of the revenues coming from foreign countries. In 2005 the receptive tourism was responsible for 13.3% of the direct and indirect jobs.

5.2 Historical evolution of the demand

The historical evolution of the demand also indicates the intensity of the rivalry among incumbents in a certain market similarly as the penetration ratio. Thus, when the growth rate of the demand of the industry is small, the revenues increment of a particular competitor just can be made by taking a parcel of the revenues from the other incumbents. In this scenario, retaliation from other competitors should be expected increasing the rivalry among competitors (Hitt et alii, 2014). Considering this aspect, it was made an assessment of the air transport growth rates in Colombia, Peru, El Salvador and Costa Rica (the operating environment of Avianca Holdings) vis-à-vis the GDP of these four countries added, as shown in the figure below.

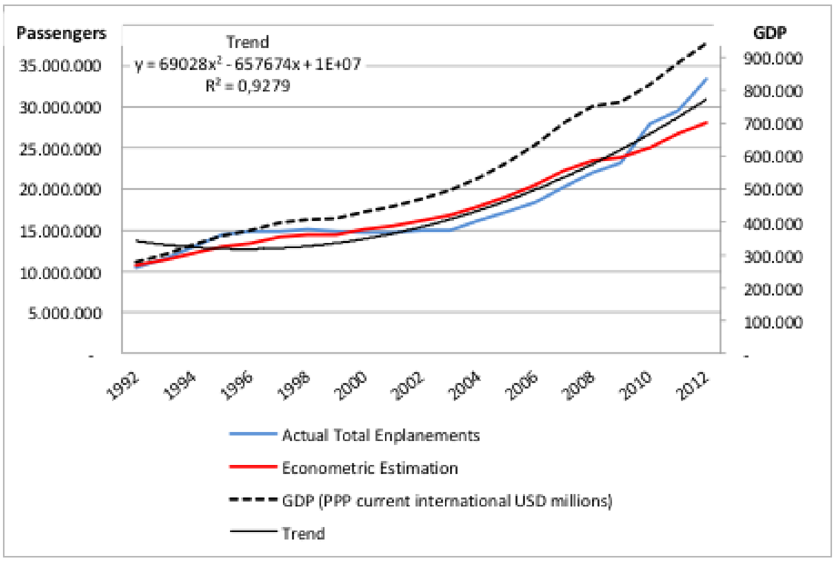

Figure 5. Year Total Enplanements and GDP added in Colombia, Peru, El Salvador and Costa Rica. (Unidad Administrativa de Aviación Civil de Colombia, www.aerocivil.gov.co; Instituto Nacional de Estadísticas e Informática, Perú, www.inei.gob.pe; Autoridad de Aviciacón Civil de El Salvador, www.aac.gob.sv; International Civil Aviation Organization – ICAO, www.icao.int; International Monetary Fund – IMF, www.imf.org)

In fact, the econometric equation as well as the trend equation show a relevant adherence with the historical data what is confirmed by the high R2 coefficients found (0.914 and 0.928, respectively). Being so, the conclusions taken from this statistical analysis may the considered as being reliable. On the other hand, the constant average growth rate – CAGR of the yearly quantity of passengers enplaned (5.9%) in these four countries along the 1992-2012 is modest and is similar to the world's average according to ICAO. The reason is that the GDP elasticity of the demand is just 0.796. This means that the demand in the region has grown below to the corresponding GDP year rates. In other words, the demand has experienced modest growth in the four countries considered together and this indicates a scenario of intense rivalry among competitors. The reason is that the modest growth rate of air transport industry demand implies that aggressive airlines' achievement of growth targets are related to withdraw sales from the more conservative airlines. As a rule, this situation triggers hard competition based on fares reduction.

5.3 Market concentration

Similarly, to the market penetration and the historical evolution of the demand, the market concentration prevailing in an industry plays an important role regarding the intensity of the rivalry among existing firms. In this way, if a sector is not concentrated the likelihood of rivalry among competitors tends to be high (Hitt et alii, 2014). The Herfindahl-Hirschman Index – HHI is an effective and a widely accepted index to measure the concentration of an industry (Rhoades, 1993) and will be used in this paper as one element to assess the competitiveness prevailing in the markets where Avianca Holdings operates.

However, some industries as the air transport of passengers are naturally more concentrate than others. Thus, the value of the HHI must be interpreted comparing different markets in the same industry. The chart below illustrates the HHI of the domestic air transport of passengers in different countries in 2012.

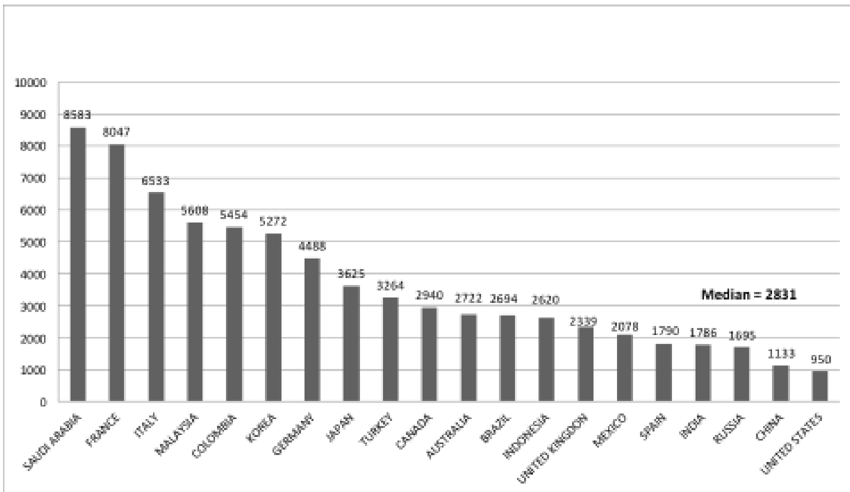

Figure 6. Market Concentration of Domestic Air Transport of Passengers in 2012 - Herfindahl-Hirschman Index (HHI). (International Civil Aviation Organization, www.icao.int).

Notes: (*) Herfindahl-Hirschman Index (HHI) is calculated by the addition of the squares of the individual firms' market shares. Un-concentrated markets are assumed as corresponding to HHI below 1500. Moderately concentrated markets and highly concentrated markets are assumed as corresponding to HHI between 1500 and 2500, and above 2500, respectively; (**) The HHI was calculated based on the number of passengers embarked in 2012 on the world's twenty largest domestic markets, which accounted for 93% of the global domestic demand.

As can be observed in the chart above the air transport Colombian market is a highly concentrate (HHI=5454) in accordance to the generic interpretation of the HHI. Besides, this market is more concentrated than the median of the largest domestic markets in the world. The same can be said for the Peruvian domestic market of passengers, whose HHi was equal to 4401. In El Salvador and in Costa Rica the domestic markets are in practice inexistent. Thus, one may assume that the HHI in the most relevant markets where Avianca Holdings operates are highly concentrated. Apart from this, these markets are dominated by this airline.

As discussed above, penetration ratios of air transport in the main markets operated by Avianca Holdings, in average, are high, which suggests that the intensity of rivalry among the incumbents is high. In parallel, in the same markets, the elasticity of the total demand to the GDP is below 1, which indicates that these markets are highly competitive. The third indicator considered, the HHI, indicates that Colombia, Peru, El Salvador and Costa Rica are highly concentrated markets. However, these markets are dominated by Avianca Holdings, whose hubs are located in the respective capitals.

5.4 Government and Alliances

The Government of Colombia is very liberal in terms ownership clauses. The absence of property restrictions made possible to a Brazilian group get the control of the largest Colombian airline as commented above. Moreover, Avianca Holdings (formally Avianca Controller) is based in Panama. The same happens in Costa Rica in terms of regulatory liberality what made possible the merge of Taca and Avianca, even remaining the control of the association of these airlines in hands of a foreign group.

However, the regulations are very restricted in terms of commercial terms in some international markets, such as traffic rights and points beyond. In this manner, air services agreements involving Colombia and Southern countries in Latin America include relevant restrictions conceived to protect Avianca from the competition of other Latin American airlines. Thus, the Colombia-Brazil bilateral agreement, for instance, include tight restrictions in terms of frequencies and fifth freedom rights to the Brazilian side with the clear purpose to protect the Colombian carriers -ibid est, Avianca- against the Brazilian carriers in the market Bogota-Miami. A summary of the table of routes of the Air Transport Services Agreement (ASA) between Brazil and Colombia signed in May 2009 is shown in Table 6.

Brazilian routes - passengers and freight services
Points in Brazil via intermediate points in South America to points in Colombia
Beyond points: South America and Caribbean islands, except Curaçao and Santo Domingo
Fifth freedom rights: To all points in Brazilian routes, except to points in the Caribbean where frequencies are limited to 4 per week, limited to 2 per week to each point.
Colombian routes - passengers and freight services
Points in Colombia via intermediate points in South America to points in Brazil
Beyond points: South America and Cape Town, Johanesburg, Luanda, Lagos and Dubai

Table 6. Air Services Agreement between Brazil and Colombia (May 2019) – Route Schedule.
(Agencia Nacional de Aviacao Civil – ANAC, www.anac.com.br)

As can be noticed, in practice the restriction of frequencies imposed to the Brazilian routes (4 per week, limited to 2 to each point) makes impossible to Brazilian carriers explore the business market to points beyond Colombia (including those located in the United States) because business passengers demand the existence of daily flights in both directions. Being so, it is very difficult for Brazilian carriers achieve profitability in the route Brazil-Colombia because the access to business traffic beyond Colombia is severely limited to them. Oppositely, the Colombian carriers may make profitable this route because they have free access to markets located in North of Colombia. On the other hand, the referred ASA restricts the Colombian routes from the exercise of the fifth freedom rights from points in Brazil to points in South America, Cape Town, Johannesburg, Luanda, Lagos and Dubai. Clearly these restrictions do not compensate the limitations imposed to the Brazilian routes mentioned above because the traffic to these latter points is very small.

Moreover, the Air Transport Agreement between United States and Colombia has a completely different approach and there are no restrictions to the carriers of both countries in terms of pricing, capacity and freedom rights as defined in the articles 2 and 11 of the mentioned agreement. In general, the air services agreements that Colombia maintain with other countries, with the exception of Brazil, follow the same model. Thus, the restrictions imposed to Brazil are far from being a doctrinal issue but a legal casuistry aiming to protect Avianca from Brazilian competitors.

Concerning to alliances, an important step given by Avianca (at that time, formally Avianca-Taca) toward its expansion and consolidation as a world standard airline was its entry in Star Alliance, which happened in June 2012. Actually, the entry of Avianca in Star Alliance was a movement articulated with COPA Airlines (a traditional partner of Continental) and with United Airlines (a regional leader associated to Star Alliance that merged with Continental in 2008) and this arrangement was facilitated by the leadership of Taca, which has been a partner of United Airlines since 2006. As can be noticed, this broad partnership has reinforced the dominance of Avianca in its main markets.

5.5 Other elements in the industry environment of Avianca

According to the "Analytical Model for the Assessment of Airline Expansion Strategies" developed by Moreira (2014) other elements must be considered in the airline industry environment assessment. Thus, the buyers' bargaining power, the suppliers' bargaining power, the new entrants' threat and the substitute products threat must be considered. With the exception of the substitute threats, the role played by the other elements driving the competition is similar as the existing in other countries and they follow the world standards described in IATA's publication Vision 2050 Report. In fact, the possibility of the implementation of a substitute product in Avianca Holdings operating environment, such as the speed train, is remote as a consequence of the scarcity of the governmental resources for making investments, just to quote the main obstacle. In parallel, as mentioned, the behaviour of the other elements present in the operating environment of Avianca Holdings is the same as in most countries. In this manner, the buyers' bargaining power tends to grow but it is not high yet; the suppliers' bargaining power is high mainly because the fuel supply industry as well as the aircraft manufacturers industry are very concentrate; and new entrants' threat is high because nowadays there are no relevant barriers to entry. Being so, for the purpose of this paper the substitute products' threat and the buyers' bargaining power will be assumed as being low. On the other hand, suppliers' bargaining power and new entrants' threat will be considered as being high.

6. The general environment of Avianca Holdings

According to Moreira (2014) the general environment is formed by eight groups of elements, namely, Economy, Demography, Politics, Legal, Social, Culture, Technology and Natural. However, in the present case the elements Legal, Culture, Technology and Natural seem not introduce relevant restrictions to the operation in Avianca's main markets. In this manner, the following comments will focus the Economy, Demography, Politics and Social issues. Besides, being Colombia, Costa Rica, El Salvador and Peru the home base of Avianca Holdings these countries will be considered together for the purpose of the analysis of the general environment of this airline.

Table 7 below demonstrates that the GDP (the main external variable that explains the market demand of air transportation) of the four countries considered together grows at a high average rate (11%). For comparison, in the same period the average growth rate of the world GDP was roughly 5%.

In addition to the GDP there are other aspects that are helpful to be considered in the analysis aiming to assess if the general environment is favorable or not for the air transport activity. Thus, the population helps to evaluate how large a specific market is. In parallel, it is reasonable to assume that there is a positive correlation between literacy and the propensity of the population to travel. The unemployment rate is also important to be taken in account because a relevant share of the air travels is motivated by business. The wealth per capita and the income concentration indicate the portion of the population capable to pay for an air travel. Table 8 summarizes these population and economic aspects.

As may be noticed, the total population of the four countries taken together is considerable and if these countries were a single country it would be positioned in the sixteenth place in the population world ranking. Besides, the literacy of the population of these countries is poor and it can be explained by the position of the respective GDP per capita and the Gini index. Again, if these four countries were a single country it would be among the poorest countries and with one of the worst income distribution in the world ranking. However, the unemployment rates in these countries are not so bad and together they correspond to a country placed in the hundredth position in the world ranking. On the other hand, the evolution of the population, unemployment rate and year GDP per capita is very good. Despite this, the evolution of the unemployment rate in Costa Rica was not favorable and it is attributable to the world economic crisis in the period, which impacted very sharply in its inbound tourism.

	2008	2009	2010	2011	2012	CAGR (*)	Position (**)
Colombia	243.982	233.822	287.018	336.346	369.789	11%	29
Costa Rica	29.838	29.383	36.298	41.237	45.375	11%	91
El Salvador	21.431	20.661	21.418	23.139	23.814	3%	99
Peru	121.616	121.220	148.558	170.602	192.673	12%	40
Total	416.867	405.086	493.292	571.324	631.651	11%	26

Table 7. Year GDP (current USD thousands), CAGR and position in the world ranking. (Sources: International Monetary Fund, World Economic Outlook Database October 2014, www.imf.org.; Central Intelligence Agency - CIA, The World Fact Book, www.cia.gov).

Notes: (*) CAGR stands for "Compound Average Growth Rate"; (**) Calculated according to the Purchasing Power Parity (PPP)

		2008	2009	2010	2011	2012	CAGR (*)	Position (**)
Colombia	Population (millions)	44.451	44.979	45.510	46.045	46.582	1,2%	30
	Literacy (***)					93,6%		NA
	Unemployment rate	11%	12%	12%	11%	10%	-2,0%	104
	Year GDP/capita (***	5.489	5.198	6.307	7.305	7.938	9,7%	110
	Gini Index					55,9		10
Costa Rica	Population (millions)	4.404	4.469	4.534	4.592	4.652	1,4%	124
	Literacy (***)					96,3%		NA
	Unemployment rate	5%	8%	7%	8%	8%	11,9%	85
	Year GDP/capita (***	6.775	6.575	8.006	8.980	9.754	9,5%	102
	Gini Index					50,3		19
El Salvador	Population (millions)	6.150	6.180	6.220	6.260	6.300	0,6%	109
	Literacy (***)					84,5%		NA
	Unemployment rate	6%	8%	6%	5%	6%	-1,3%	64
	Year GDP/capita (***	3.485	3.343	3.443	3.696	3780	2,1%	137
	Gini Index					46,9		30
Peru	Population (millions)	28.657	29.101	29.552	30.009	30.474	1,5%	43
	Literacy (***)					89,6%		NA
	Unemployment rate	8%	8%	8%	8%	7%	-5,1%	29
	Year GDP/capita (***	4.244	4.165	5.027	5.685	6.323	10,5%	112
	Gini Index					48,1		25
Total	Population (millions)	83.662	84.729	85.816	86.906	88.008	1,3%	16
	Literacy (***)					91,7%		NA
	Unemployment rate	10%	10%	10%	9%	9%	-2,4%	100
	Year GDP/capita (***	4.983	4.781	5.748	6.574	7.177	9,6%	117
	Gini Index (*****)					52,3		14

Table 8. Population, literacy, unemployment rate, year GDP per capita, Gini Index and position in the world ranking. (Sources: International Monetary Fund, World Economic Outlook Database October 2014, www.imf.org; Central Intelligence Agency – CIA, The World Fact Book, www.cia.gov).

Notes: (*) CAGR stands for "Compound Average Growth Rate"; (**) The position of the GDP per capita in the world ranking was calculated according to the Purchasing Power Parity (PPP); (***) Literacy is herein assumed as being the proportion of the total population aged 15 and over that can read and write; (****) Year GDP per capita in current USD; (*****) Calculated as the weighted average of the Gini indices for each country by its population.

By the end of 2006 the Revolutionary Armed Forces of Colombia (FARC) has been demobilized after almost five decades of conflict. In parallel, the United Self Defense Forces of Colombia (an anti-FARC paramilitary group) as a formal organization had also ceased to function. The formal extinction of these two organizations have not lead Colombia to internal peace because criminal groups, whose members included some former paramilitaries, arose. The insurgents lacked the military or popular support necessary to overthrow the government, but continued to attack against civilians. Large areas of the countryside had been under guerrilla influence or had been contested by security forces despite the efforts of the Colombian Government supported by the Government of the United States. It was just by the end of 2012 that the Colombian Government started formal peace negotiations with the FARC aimed at reaching a definitive bilateral ceasefire and incorporating demobilized FARC members into mainstream society and politics. Although Colombia still faces difficulties in terms of law enforcement, this country maintains relatively strong democratic institutions characterized by peaceful, transparent elections and the protection of civil liberties.

Differently from Colombia, Costa Rica has been a stable democratic country since the late 19th century. This situation is essentially due to the expenses of the government in social programs, which correspond to around 20% of the country GDP. As a consequence, the standard of living in Costa Rica is the highest among their neighbors. Apart from border disputes events with Nicaragua, there are no relevant conflicts involving Costa Rica. However, these frontier disputes with Nicaragua are not important enough to harm the stability of Costa Rica. As much is thus that Costa Rica has no regular army since 1949.

El Salvador is the smallest and most densely populated country in Central America. The fertility rate had decreased to the replacement level nowadays as a consequence of public policies of contraception implemented since 1970's. In spite of the poverty in El Salvador the country is politically stable and the border disputes with Honduras are not an important issue capable to destabilize the country.

Similarly, as in Colombia, there are still focuses of insurgency in the countryside of Peru. Although the activity of the organizations Sendero Luminoso (in English, Shining Path) and its rival Movimiento Revolucionario Túpac Amaru (in English, Tupac Amaru Revolutionary Movement) has decreased along the 1990's as a consequence of the governmental repression, they were still felt occasionally in Peru. As the Colombian FARC the Peruvian revolutionary groups operate in cooperation with the producers of illegal drugs such as cocaine. Actually, Peru is the second largest producer of the raw material for the manufacture of cocaine in the world. In spite of the resilience of these insurgent groups Peru is a stable democracy with regular and free elections and has not faced serious crisis in this century. In conclusion, one may consider that the economy environment where Avianca Holdings operates has been predominantly favorable in the period 2008-2012. Thus, the GDP growth of the four countries considered together was sizeable and with a high rate. Besides, the GDP per capita (although small) as well as the unemployment rate have evolved favorably. On the other hand, the demography was considerably favorably because the total population of Colombia, Costa Rica, El Salvador and Peru considered together was of roughly 88 million, although not being wealthy. Furthermore, in the politics field there has been a great contrast among the four countries analyzed. On one hand there was Costa Rica with a long period of political stability and on the other hand there was Colombia, where insurgency has not been not totally overcome. Peru was in an intermediate position. Because Colombia and Peru have the predominant weight in the region, one should consider that the political group of elements has been unfavorable. Finally, the social aspects should be considered as being negative in the period because the income distribution as well as the literacy of the population was of a very modest standard.

7. The Avianca Holdings expansion strategy. Choices and results

In accordance to the Analytical Model for the Assessment of Airline Expansion Strategies developed by Moreira (2014) and by applying the conclusions above related to the airline business model followed by Avianca Holdings (Broad Network Airline) and to the conditions of the industry and of the general environment where this airline operates, one may build the expansion strategy score shown in Table 9. As mentioned in the referred model, the better score corresponds to the better generic expansion strategy, given the airline business model and the conditions of the industry and of the general environment.

Scope of the Business Involved	Process of Implementation	Score
Horizontal Integration	Alliances	17
Diversification	Alliances	17
Vertical Integration	Alliances	15
Concentrated Growth	Alliances	14
Horizontal Integration	Mergers and acquisitions	13
Diversification	Mergers and acquisitions	13
Vertical Integration	Mergers and acquisitions	11
Horizontal Integration	Internal Growth	11
Diversification	Internal Growth	11
Concentrated Growth	Mergers and acquisitions	10
Vertical Integration	Internal Growth	9
Concentrated Growth	Internal Growth	8

Table 9. Generic growth strategy score for Avianca Holdings in the period 2008-2012

As per the discussion in the section 2 above, the predominant generic growth strategy followed by Avianca Holdings was a horizontal integration combined with an implementation process by merger and acquisition. In this manner, the corresponding generic expansion strategy score in Table 9 is 13. On the other hand, the best generic expansion strategy indicated by the Analytical Model for the Assessment of Airline Expansion Strategies is a horizontal integration combined with an implementation process supported by alliances (score 17 in Table 9). The rationale behind the recommendation of the model is that the horizontal integration would leverage the potential synergies of the dominant position of Avianca Holdings in its environment. In parallel, the implementation process backed by alliances would mitigate the inherent risk of a political unstable environment. In spite of not following the generic expansion strategy recommended by the model, the results of the expansion strategy followed by Avianca Holdings were remarkable. In this manner, the traffic statistics of Avianca were very positive as shown in Table 10. In this way, the constant average growth rate achieved in the period 20018-2012 has been between 24 and 26% per year, depending on the indicator being considered.

It is important at this point understand the implications of the divergence between the strategy recommended by the model and the strategy followed by Avianca Holdings. Concerning to the scope of the business involved, the strategy recommended by the model is the same as the one followed by Avianca Holdings, i.e., horizontal integration. The difference resides on the process of implementation, i.e., the model has recommended alliances and Avianca Holdings option was merger and acquisition. The difference is that the path chosen by Avianca Holdings was riskier than the path indicated by the model. It seems that the organizational culture or the style of management of Avianca Holdings' investors have a high degree for risk acceptance as is suggested in the brief cash flow analysis below in tables 11 and 12.

Year	Passengers carried	Passenger-Kilometer (000)	Available Seat-Kilometer (000)	Load factor
2012	21.601.299	27.726.185	37.789.472	73%
2011	17.782.471	23.543.720	33.477.480	70%
2010	16.553.718	20.155.348	28.474.329	71%
2009	9.333.796	11.831.539	15.732.190	75%
2008	9.198.557	10.962.944	14.390.905	76%
CAGR	24%	26%	27%	-1%

Table 10. Year passenger traffic of Avianca Group. (International Civil Aviation Organization, www.icao.int)

Table 11 below shows an unfavourable current ratio (very below 1) and table 12 shows acceptable very short term liquidity (equal or above 30 days, according to the financial analysts of Boeing Capital, cash and cash equivalents of an airline should correspond to at least 30 days of operating expenses, being desirable they correspond to 60 days or more). In other words, the cash flow of Avianca Holdings had to be managed in a very tight day-to-day basis. This confirms that the strategy followed by this airline was a risky one.

	As of january 1st	As of December 31st	
(in USD thousands)	2011	2011	2012
Total current assets	756.954	905.516	879.561
Total current liabilitie	1.286.549	1.388.711	1.530.825
Current ratio	0,59	0,65	0,57

Table 11. Current assets and liabilities of Avianca Holdings. (Securities and Exchange Comission - SEC, Avianca Holdings Form 1 Registration Statements, June 2013, 23rd)

(in USD thousands)	2011	2012
Cash and cash equivalents	288.726	402.997
Daily total operating expenses	9.841	10.928
Ratio (days)	29	37

Table 12. Cash and cash equivalents and daily total Operationg expenses of Avianca Holdings. (Securities and Exchange Comission - SEC, Avianca Holdings Form 1 Registration Statements, June 2013, 23rd)

8. Conclusions

The Analytical Model for the Assessment of Airline Expansion Strategies was applied successfully to analyse the expansion strategy of Avianca Holdings. It was demonstrated that the expansion strategy indicated by the highest score of the model (horizontal integration implemented by alliances) is consistent with the business model followed by Avianca Holdings as well as the industry environment and general environment prevalent in the region. On the other hand, the predominant generic expansion strategy followed by Avianca Holdings - horizontal integration implemented by merger and acquisition - cannot be considered as being improper because it has taken advantage of the benefits of horizontal integration as suggested by the model. Thus, the leverage of the sustainable competitive advantages inherent to the dominant position enjoyed by this airline has been maximized. Howsoever, it was not a totally advisable implementation process because it was too risky considering the political instability reigning in Colombia and in some extension in Peru. Indeed, Colombia hosts the largely most important hub of Avianca Holdings -Bogota- which corresponds to 64% of the total passengers carried by Avianca Holdinds. That is to say, the political stability in this country is crucial for the survival of Avianca. In parallel, the financial current ratio and the cash and cash equivalents to the daily total expenses ratio also demonstrate that the expansion strategy followed by this airline has been risky. Thus, one can infer that the acceptance of a risky strategy is part of the management style of Avianca Holdings.

Besides, the potential peril pointed by the model came to no trouble to Avianca Holdings because the political situation in Colombia and Peru has evolved positively. Thus, stable and democratic governments were able to consolidate themselves and have given impulse to healthy and consistent economic growth in these countries. In addition, Avianca Holdings became a member of Star Alliance, what has reinforced its dominant presence in the region. Finally, it should be mentioned that a successful public offering in the US stock markets is a challenging task for Avianca Holdings as a consequence of its not very solid financial structure and the intrinsic risk of the airline business.

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