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Business sustainability in the commercial air sector in Latin America

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Abstract

The commercial aviation sector is part of a dynamic industry in constant growth and development. In this sense, the objective of this article was to analyze the importance of Business Sustainability in the main commercial airlines of Latin America. To carry it out, a qualitative documentary study was carried out beginning with a critical literature review using databases and think-tank organizations. Subsequently, the information was collected in social, economic and environmental dimensions and categorized with its alignment with the Sustainable Development Goals. The main results show that commercial airlines in the region have some achievements. However, the Covid-19 pandemic and the financial and social problems triggered by this contingency has led to major challenges for the industry. Finally, the study can be useful for airline managers, directors, industry-regulators, government agencies, and other stakeholders to assess the risk of the sector and its potential recovery in the months to come.

Resumen

El sector comercial aéreo es parte de una industria dinámica en constante crecimiento y desarrollo. En este sentido, el objetivo de este artículo fue analizar la importancia de la Sustentabilidad Empresarial en las principales aerolíneas comerciales de América Latina. Para llevarlo a cabo, se realizó un estudio cualitativo documental comenzando con la revisión de la literatura en bases de datos y organizaciones de grupos expertos. Posteriormente, se recolectó la información en tres dimensiones (social, económica y medioambiental) y se categorizó su alineación con los Objetivos de Desarrollo Sustentable. Los principales resultados muestran que las aerolíneas comerciales de la región poseen algunos logros. Sin embargo, la pandemia causada por el Covid-19 llevan a grandes retos a la industria. Los hallazgos permiten a gerentes de aerolíneas, reguladores de la industria, agencias gubernamentales y demás partes interesadas, evaluar los riesgos que enfrenta el sector y su potencial recuperación en los meses próximos.

Keywords: Business sustainability, commercial airlines, sustainable Development, Latin America.

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1. Introduction

Sustainability is generally associated with a business strategy that drives long-term corporate growth and profitability by mandating the inclusion of environmental, financial and social issues in the business model (Berns, Townend, Khayat, Balagopal, Reeves, Hopkins, et al., 2009). Hence, Business Sustainability has presented growth and interest for large, medium and small companies as it helps managers and companies with their strategic direction and decision making. Moreover, Business Sustainability means that, in addition to setting certain economic or financial goals to be reached, companies should also set social and environmental goals.

On the other hand, it is important to highlight the role that governments have played in the development of "*green initiatives*", as well as their regulation for companies. Similarly, entrepreneurs, and business managers from various industry sectors have opted for more environmentally friendly processes, this has brought several benefits and challenges for themselves and final consumers.

In this regard, this paper will address the importance of business sustainability for the commercial aviation sector, with principal focus on companies such as Aeromexico, Avianca, Interjet, Latam and Aerolineas Argentinas, which are some of the most important airlines-carriers in Latin America. This industry is one of the most important industries at local and international levels, accounting for its fast and reliable transportation, the direct/indirect employment generated, and for fostering business and tourism activity at several levels, that in fact, have strong economic impact across countries. In this way this industry is one of the fastest-growing, encouraging employment and economic growth (Forum, 2020). Due to these characteristics, the commercial aviation sector has taken a large market for the commercial and tourism sector in recent years, and it is also acknowledged that aeronautical technology is advancing at breakneck paces, generating aircraft with more efficient systems and with lower fuel consumption that have a benefit for the environment. This growth has brought with it challenges in various areas such as economic, social, and environmental. For instance, regarding the environmental regulations, the International Air Transport Association (IATA, 2020), one of the major authorities worldwide in civil aviation has set priorities for the industry and will enforce the following measures:

- An improvement in fuel efficiency of 1.5% per year from 2009 to 2020.
- A cap on net aviation CO₂ emissions from this year (carbon-neutral growth).
- A reduction in net aviation CO₂ emissions of 50% by 2050, relative to 2005 levels.

As it can be seen, IATA is encouraging to improving the environment by promoting the use and implementation of green technologies in the sector. However, the Covid-19 pandemic has seriously affected the industry and its operations. In this regard, IATA has been working with the main countries of Latin America to draw up plans for the reopening of the sector. It is estimated that there are \$18 billion losses for these airlines due to Pandemic in the first half of the year and it is estimated that it will take up to three years to return to the performance levels of 2019 (IATA, Biosecurity for air transport , 2020). In addition, according to the World Economic Forum (2020), the Air Transport industry accounts for about one in ten jobs worldwide and 10.4% of global GDP. In Latin America alone, this sector employs nearly 430,000 people. It points out the relevance of the sector today for the economy and society. Besides, according to Rafael Echevarne (2020), the director of the Latin America and Caribbean division of the International Airports Council (ACI-LAC), has stated that "air traffic has practically disappeared". However, it is expected this industry will take time to recover after the Pandemic, as tourism will decline and controls and restrictions on regional and international trade traffic are expected to be stricter.

2. Research Methodology

The research methodology consisted of a documental study about the business sustainability for the commercial aviation sector, with a focus on some commercial airlines in Latin America. A literature review was carried out using academic articles, books, business reports, among other, obtained from databases such as Scopus, Science Direct, Ebsco and think-tank organizations such as the World Economic Forum (WEF), The International Air Transport Association (IATA), Euromonitor, among others. Search questions and keywords were established through a search strategy made up of words that were combined by Boolean operators, proximity operators, truncation operators, and parentheses. Due to the nature of the industry, most of these documents were obtained for key industry reports and business intelligence data bases that provided reliable and accurate information not only for researchers but for industry decision-makers, policy-makers, and think-tank regulators.

In this way, the information obtained was chosen, collected, synthesized, and categorized based on characteristics such as the number of citations, the relevance of the authors, the quality of the database and the relevance of the subject for the commercial aviation sector, and finally results consistent according to Latin American airline's business sustainability actions and programs. A category analysis was then established to build up an analysis and discussion section of the most relevant findings through the research process.

3. Literature review

During the last years the sustainability concept has grown constantly. According to Gimenez, C., Sierra, V., & Rodon, J. (2012) the sustainability area has been studied in engineering, environmental sciences, and particularly in business and management areas, due to its versatility. Furthermore, the importance of sustainable business practices is already recognized as it has become a must strategy affecting most business operations of organizations. There is a need that new business models include a strong focus on Business Sustainability and contribute to mitigate some of the challenges in sustainable development in the long run. In this way, there is also a need to have sustainable companies, that as key stakeholders in the business models, and contribute to key sustainability goals; Thus, sustainable companies must project this condition and focus toward its customers, environment and community, becoming organizations capable of integrating sustainable operations into their business strategy or key programs, and business performance, collaborating positively with the environment and the community (Rajala et al., 2016). The implementation is a challenge that involves knowledge on the subject, change on mindset and new methods of working to achieve it.

Currently, Business sustainability has become a multifaced topic that permeates both specialized literature and everyday life in the business world. Besides, according to Godemann & Michelsen (2011), its inclusion is almost a duty, taking into account the social and environmental context.

On the other hand, Business sustainability in addition to economic benefits is concerned with social values and measurable ecological values (Boons & Lüdeke-Freund, 2013), in this regard, Business sustainability can be perceived as the fulfillment of the so-called “triple bottom line”, i.e. people, planet and profit orientation (Dyllick and Muff, 2016) or social, environmental and financial outcomes (Gupta and Kumar, 2013). By synchronizing sustainability in their business processes, organizations may gain benefits, such as positive image, enhanced trust from stakeholders, higher returns on investment, and profitability and more efficient resource management (Horak et al., 2018). Economic indicators refer to the profitability of the company; social measures the impact on the influence community and environmental assess ecological aspects, resource utilization, and pollution levels. In fact, it is intended to strike a balance between these dimensions and for companies to transit and be managed under the parameters of Business Sustainability. In contrast, companies that do not will be exposed to loss of markets. Declining revenues and their possible disappearance over time. Nevertheless, this requires defining politics towards Business sustainability; through better waste utilization, reduction of losses in production and labor, improvement of productivity levels and evaluation and continuous improvement.

Business sustainability research, which has been flourishing in the past four decades (Linnenluecke & Griffiths, 2013) is under pressure generated by different types of stakeholders as governments, communities, media, employees, suppliers, among others. These stakeholders have different levels of power and influence that affect the company's sustainability policies (Ackermann and Eden, 2011) and the level of development or degree of sustainability it can achieve (Dyllick and Muff, 2016). Eventually, tax reforms and the regulations of developing countries do not contribute positively to the sustainability of companies. Also, tax reforms have been characterized by increased tax collection, increasing tax revenues, which positively influence the state's obligations and liabilities, but undermine foreign investment and corporate sustainability (Jaimes et al, 2017).

On this matter, in several Latin American countries, there is a discontent with the reforms and various sectors and actors have expressed the issue and see this regulation as a threat to Business sustainability, an example is Colombia, where according to the National Association of Entrepreneurs of Colombia, law 1819 of 2016 fell short on competitiveness because it maintains a high rate of taxation compared to other nations and the creation of new taxes directly impacts the competitiveness of the region, in addition, there are no objectives or initiatives for the development of Business sustainability (ANDI, 2017). In this regard, a sustainable company creates economic, environmental, and social value over time. Thus, contributing to the increase in the well-being and progress of present and future generations, in its environment, it is important to note that any change in the tax rate of companies impacts the capitalization in a country by the decrease in cash flows and others accounts (Angulo et al., 2016). Additionally, corporate taxes have a big impact on the development of any country's tax system, and therefore its progress. While it is vitally important for the sustainability of the company, so is it for nations (Pérez et al, 2016). For instance, in Carlos Montalvo's (2008) survey one key finding was that government policies are one of the key elements leading to business sustainability. So, the government acts as a driver and the technological opportunities are essential for Business sustainability.

As mentioned above Business sustainability refers to social, economic and environmental performance and the rapid growth of sustainability practices in developing countries, there is a need for a cross-industry comparison of sustainability practices by measuring their impact on BS performance in developing countries in the future. In that way, Sustainable competitiveness as an integrating concept bridging the current understanding of sustainable development and encompassing the aspects of economic, social and environmental sustainability (Doyle & Perez-Alaniz, 2017).

On the other hand, exist internal determinants of Business Sustainability, according to Imbrogiano (2020) are involve in three levels; Output Level is about what is done or intended by businesses; Outcome level translates into organizational performance and Impact level feeds into societal or global sustainability objectives.

Now, in the Output level, the percentage of the studies about Adoption or application of management tools, mechanism and procedures are near to the 30% meanwhile Perceptions of leadership, reputation, performance, organizational development is 20% and the rest is distributed in other categories such as Strategic integration, Product development, etc., It is important to clarify that Outcome level represents the 25% of the total and the Impact level is empty. While this body of work contributes to the advancement of concepts and theories in the business sustainability field, it does risk promoting management approaches that have unclarified means–ends relations (Bromley & Powell, 2012).

Besides, there are two strategies to measure the development of Business sustainability: 1. Horizontal differentiation means to measure sustainability performance in items that researches can evidently suggest being addresses in businesses with different performance rationales. 2. Vertical differentiation means to measure sustainability performance on items that go beyond the direct impact sphere of a company. Together could push the field toward a better understanding of sustainability performance in businesses (Imbrogiano, 2020).

On the other hand, Meza-Ruiz et al. (2017), suggest four levels to determine the maturity levels of companies, these are: *Beginner*, *Elementary*, *Satisfactory*, and *Sophisticated* or *Exceptional*. In addition, they emphasize that Baumgartner & Ebner (2010) provided one of the most complete frameworks for the measurement of maturity in different organizations. The first level, *Beginner*, represents the basic, i.e. the company may be considering the aspect of Business sustainability, if so, it only meets and respect the compulsory standards. The next level of maturity, *Elementary*, are companies that have an essential integration and have a little more focus on sustainability. The third, *Satisfactory*, is a higher consideration of the maturity over Business sustainability, sometimes above the average industry. *Sophisticated* or *Exceptional* refers to the companies that make an outstanding towards sustainability. In this regard, to determine the maturity level, it is necessary to evaluate the “triple bottom line” of each company, that is, the economic dimension, the ecological dimension, and the social dimension (Meza-Ruiz et al. 2017).

Consequently, companies carry out actions towards Business sustainability as a part of its mission and values and beliefs, whereas some companies do not make it know or it is not diffuse to the community, government institutions must recognize and reward companies that perform sustainability actions, and

comprehensive development of three dimensions (people, planet and profit) is necessary for proper measurement of them, and the design of policies as a whole (companies and governments) is essential for the generation of benefits that drive organizations to achieve better sustainability outcomes. Thus, according to Meza-Ruiz et al., (2017) It is vitally important to remember that corporate sustainability is not a goal; instead, it is a way of being any organization.

Companies must adapt their culture to the new needs of the society because an organization with sustainable culture will certainly generate long-term value, reinvent itself when necessary and be better prepared to deal with the economic, social, and environmental challenges that are apparent in the Sustainable Development Goals, an issue that will develop in the next section.

4. Sustainable Development and Business Sustainability

Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (United-Nations, 2020). Sustainable Development is a fundamental concept due to it is focusing on a socially and environmentally friendly development. This concept has three basic dimensions that are **social**, **economic**, and **environmental**. Sustainable Development (SD) has had an evolution since its conception and application because the researches are focused on how to carry out its management.

According to a study carried out in Switzerland with a total of 1942 papers about sustainable development and sustainability, it shows that there is a trend of articles centered on SD practice rather than theory, which suggest theory development/research related to SD is declining (Shi, Han, Yang, & Gao, 2019). Likewise, Sustainable Development has presented iconic stages. First, the *Embryonic Period*, covers the time before 1972 when the concept was not recognized, during this period the idea was to take advantage of the natural resources and lessen the evil effects. Therefore, one of the most important events was the first publication of the concept “sustainability” used in Carlowitz’s monograph *Afforestation and Economy* which was published in 1713 and talked about sustainable forestry. In the second place, the *molding period*, it covers from 1972 to 1987 during this time the United Nations carried out a world summit in Stockholm, Sweden in 1972 trying to urge all countries in the world to strengthen environmental management policies while developing their national economies because it was discovered that the development of policies in different countries around the world were primarily focusing on economic growth increased the serious environmental problems. Additionally, the concept and definition of Sustainable Development were expanded into the global world in 1987. And the third is *Developing*

Period from 1987 to present, at the beginning of this stage strategic plans and goals were formulated at the Rio de Janeiro meeting in 1992, which objective was to implement sustainable development and to establish the principle of building a global partnership to jointly solve global environmental problems. Moreover, two declarations were signed at this important conference with great relevance to the globalized world, "*Rio Declaration on Environment and Development*" and the "*Agenda 21*", the main finding was the establishment of SD's importance for international politics and for the development of humanity itself from sustainability and global action. Subsequently, in September 2015, the United Nations brought together more than 150 countries to carry out the summit, and the 2030 Agenda, where the Sustainable Development Goals (SDGs) were established.

The latter, according to the United Nations is a *composition of intertwined social, economic, and environmental goals and targets that requires a new way from thinking about development.* (UN, 2015) 17 global objectives cover various problems such as water, energy, climate, oceans, transport, science, and technology, and 169 indicators, which serve as a guide for countries, companies, and humans. These objectives have as the main characteristic of their universality, which means that it applies both for developed, and emerging countries. There is also a total integration of the issues and solutions to them. At last, the application of these objectives and indicators, guarantee a future for human life and planet Earth, as well as the growth and improvement of the quality of life.

Table 1. SDG's: initiatives.

	Sustainable Development Goals (SDG's)	Airlines' initiatives
Social dimension	GOAL 3: Good Health and Well-being GOAL 4: Quality Education GOAL 5: Gender Equality GOAL 8: Decent Work and Economic Growth GOAL 10: Reduced Inequality	Decent working practices and commitment to wage equity, detailed commitment to the company's code of conduct, the Supplier Code of Conduct and supplier management requirements and systems, occupational safety, risk prevention and mitigation programs, among others.
Economic dimension	GOAL 8: Decent Work and Economic Growth GOAL 9: Industry, Innovation and Infrastructure GOAL 17: Partnerships to achieve the Goal	Airlines in Latin America seek to improve regional and international cooperation, improving coordination between existing mechanisms, facilitating access and improvement of technology, making strategic alliances with different organizations.

Environmental dimension	GOAL 6: Clean Water and Sanitation	Use of non-hazardous waste compared to the total waste generated, Reduce the kg of CO2 emitted by aircraft per 100 passengers per kilometer traveled (RPKs), in addition to its programs for the preservation of the environment.
	GOAL 12: Responsible Consumption and Production	
	GOAL 13: Climate Action	
	GOAL 14: Life Below Water	
	GOAL 15: Life on Land	

Fuente: Own elaboration with information from official web pages and annual reports from the airlines:(AeroMexico, 2020) (Aerolineas-Argentinas, 2020) (Avianca, Holdings S.A., 2020) (Interjet, 2020) (Latam, 2020).

5. Commercial air sector

In the next section, it can be found a review of the commercial airlines' sector. Airlines play a very important role globally, thanks to the efficiency and speed to users and tourists, thus connecting them with their destinations. In terms of trade, it is the fastest and greatest cost-savings ways to move people and goods, so it widely used for international trade of goods ranging from low to high commercial values.

On the other hand, there are different organizations for the control and development of the industry, e.g. according to IATA (2020), its priorities for the situation presented today are 1. Generate Cash for Airlines: To support the industry in achieving relief measures that generate cash for airlines equivalent to up to USD120 billion. 2. Reduce Airline Costs: To support the industry in achieving a reduction in supplier costs and taxes for airlines equivalent to up to USD50 billion. 3. Industry Restart: To enable the industry to reach 60% of 2019 RTK levels by December 2020 through the successful implementation of the IATA Industry Restart Plan. And 4. Ensure IATA's Sustainability: To protect cash and IATA customers' accounts in delivering the 2020 cost reduction targets (USD108 million cash expenditure reduction vs. 2020 budget) and ensuring safe & secure delivery of IATA's services for the industry. The airlines and the entire air trade sector must be governed by the mandates of these organizations, so it is of great importance to know how they have decided to act in the face of the problems presented and the effects on the sector. Joint work must be done to continue the accelerated growth of the industry.

5.1. Latin America's main commercial airlines

Although these are cross-cutting and international organizations, they sometimes focus on specific regions, to synchronize their actions and improve the performance and development of activities. So, for this study, a broad focus will be taken on commercial airlines in the Latin-American region; the airline industry provides a service to a lot of countries around the world and has played an integral role in the

creation of a global economy. In the same way, according to the World Economic Forum, Latin America has local policies, which continue to seek more sustainable sources of long-term growth, measures to more effectively promote integrity and transparency, and ways to better prepare the workforce for a more technology-driven future. (Forum, 2020) This makes it a region in growth and development, increasing its level of competitiveness with global markets.

Air transport and commercial aviation in Latin America and the Caribbean has shown strong growth over the last few years, according to the World Bank (2020), by 2017, 2,748,629 were transported and by 2018 there were a total of 2,818,642 passengers transported, representing an increase of approximately 70,000 passengers in a year thus Latin American air transport market is a potentially competitive region. In this sense, airlines have thus shown exponential growth in their level of flights and passengers per km.

In other matters, Latin America and the Caribbean is made up of 45 countries with a wide variety of opportunities and growth in various aspects. Therefore, the region has several of the most recognized companies not only within the region but also on the other continents.

Table 2. Some Latin American Airlines characteristics.

	Aero México	Avianca	Interjet	Latam	Aerolíneas Argentinas
Official name	Aerovías de México S.A.	Avianca Holdings S.A.	Interjet.	LATAM Airlines Group S.A.	Aerolíneas Argentinas S.A.
Foundation date	September 15 of 1934. (Aeroméxico, 2020)	December 5 of 1919. (Avianca-S.A., 2020)	December 2, 2005. (Interjet, 2020)	March 5 of 1929. (Latam, 2020)	May 1950. (Aerolíneas-Argentinas, 2020)
Headquarter	Mexico City, Mexico	Bogota, Colombia	Mexico City, Mexico	Santiago, Chile.	Buenos Aires, Argentina.
Workforce	16,660	16,725	5,000 approx.	41,719	10,230
Fleet	According to Aeromexico (2020) on December 31, 2019, there were 125 aircraft.	Currently, Avianca has 171 aircraft.	Currently, Interjet has 85 aircraft. (Interjet, 2020)	According to Latam (2020), there are 345 aircraft.	The available fleet is 56 aircraft. (Aerolíneas-Argentinas, 2020)
Routes	Aeromexico flies to 42 domestic destinations and 43 international destinations from Mexico.	By 2019 Avianca had 135 destinations in 76 destinations and made 280.466 flights during the year.	50 destinations in Mexico, the United States, Canada, Caribbean	145 destinations in America, Europe,	in 60 destinations including national and international places.
Passengers	20,6 million	30.5 million. (Avianca-S.A., 2020)	12 million	74, 2 million	9.415.030 passengers.
Flight revenue (USD\$)	Approx. 3.035.081 USD (Aeroméxico, 2020)	Approx. 4.890.830 USD (Avianca-S.A., 2020)	Approx. 256,643.25 USD (During the first trimester of 2019)	10.430.927 USD during 2019.	USD 1.658 million during the year 2019.

Green projects

<p>Aeromexico has four pillars in its sustainability strategy which are:</p> <ul style="list-style-type: none">• Customer Responsibility.• Responsible Business Practices.• Environmental Sustainability.• Community Linking	<p>According to the Avianca Ambiental program, they connect environmental value, through responsible management, alliances, and connection with products and certified initiatives.</p>	<p>Interjet supports the Social Responsibility project "Ecojet", an initiative to promote sustainable projects that generate positive changes in the environment and reduce the impact that the airline industry and fuel consumption cause on the planet.</p>	<p>Latam builds on the corporate sustainability strategy by collaborating on carbon footprint reduction, increasing eco-efficiency, and sustainable alternative energy.</p>	<p>In environmental they have: Fuel efficiency program (CO2 emission mitigation and sound pollution); Agreement with the Bioandine Foundation for the Conservation of the Andean Condor and collaboration with the transfer of animals that need geographical relocation working with the GCBA Eco Park.</p>
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Fuente: Own elaboration with information from official web pages and annual reports from the airlines: Aeromexico; Avianca and Interjet, Latam and Aerolineas Argentinas. (AeroMexico, 2020) (Aerolineas-Argentinas, 2020) (Avianca, Holdings S.A., 2020) (Interjet, 2020) (Latam, 2020)

Table 2 shows the main characteristics of the Airlines under study. Aspects of social, economic, and environmental terms of five (5) of the most important airlines within Latin America.

According to IATA (2020) 5.2 million jobs generated by the airlines' industry in Latin America and the Caribbean. These companies make great strides in terms of technological innovation, since AeroMexico, Avianca, Interjet, Latam and Aerolineas Argentinas, promote from various internal areas the quality in their services, which represents a competitive advantage because providing high-quality services satisfying passengers and tourists is a core competitive advantage to reach a relevant economic development (Chen, 2008). At the same time, travelers would be certainly more attracted by more modern airport infrastructures, and by more comfortable and safer airlines. For this reason, the Latin American region and these Airlines have measures such as the upgrade and change in its fleet to offer the regional and global market a forward-looking product and a service with high-quality standards, for example, AeroMexico during 2019, opted for the "incorporation of next-generation aircraft, including Boeing 787s, these are equipped with *"sky interiors"* and technology, including individual video screens in each seat" (AeroMexico, 2020). Besides, they offer various schedules for business destinations.

In the same sense, Avianca in 2018, incorporated into its fleet the first A320neo, an aircraft with New Engine Option technology that saves up to 20% of the fuel and decreases CO2 emissions by 5,000 tons, also acquired its first portfolio of carbon-neutral certified projects in Colombia and Latin America (Avianca, Holdings S.A., 2020). On the other hand, this has the aeronautical center in Rionegro (Colombia), one of the most modern in Latin America, recognized for implementing innovative processes in aircraft maintenance and its components.

Also, Latam has a young fleet (approximately 9 years) and modern, such as Airbus A350-900 and Boeing 787 Dreamliner, thus generating large decreases in fuel consumption level (between 15% and 20%) and a lower level of noise in the cockpit. Meanwhile, Interjet has within its fleet the Airbus A321 neo, this allows the optimization of operations on different routes while being an aircraft that maintains technology, comfort, and efficiency. Finally, the Argentine flag airline, after six years of public management, managed to carry out the renewal of the fleet by one of the most modern in the region, providing greater comfort to its passengers and the improvement of operations of Latin American commercial airlines.

Figure 1. Latin American commercial air sector SWOT.

STRENGTHS

- The expectation of airline retail value growth and Compound Annual Growth Rate in the region.
- A growing number of passengers on domestic flights.
- Stands out as one of the easiest regions to do business, positioned to attract future business operations to its countries.
- Strategic alliances with higher-level airlines.

WEAKNESSES

- Political instability and corruption could affect business and consumer confidence and regional investment.
- An infrastructure upgrade is needed in the region.
- The lack of Information and communication technology (ICT) could hinder the region's development.

OPPORTUNITIES

- A growing number of passengers on domestic flights.
- Climate diversity makes the region more attractive to tourism.
- Specific consumer groups into the region.
- Promotion of industry and regional products.

THREATS

- Uncertainty regarding the evolution and treatment of the global pandemic by Covid-19.
- Too much tax for Small and Medium Enterprises (SMEs).
- High inequality, informality, and still high unemployment will remain major policy challenges.

Fuente: With information of Airlines in Argentina, Chile, Colombia, Mexico-September 2019; Argentina: Country Profile, 20 Apr 2020; Chile: Country Profile, 10 Apr 2020; Colombia: Country Profile, 20 Mar 2020; Mexico: Country Profile, 20 Mar 2020; Latin America: Regional Profile, 06 Mar 2020; Business Dynamics: Argentina, September 2019; Business Dynamics: Chile, December 2019; Business Dynamics: Colombia, August 2019 and Business Dynamics: Mexico, June 2019 by Copyright 2019-2020 Euromonitor International.

Likewise, the commercial air sector in Latin America and the Caribbean provides great potential for the region through the mitigation of its weaknesses and threats with the improvement of the strengths and opportunities presented. As you can see in **Figure 1**, one of the weaknesses is the lack of information technology skills, however, alliances with airlines and higher-level companies can be used to train and strengthen these skills in the workforce and the community at large.

Also, the amount of taxes can be mitigated using promotion in regional production and industry, another alternative is the use of the various thermal floors to make the region more attractive for tourism and foreign investment, thus improving employment, the economy and the regional market, in this same sense, the image of the region is improved against other geographical locations and uncertainty is reduced by the current situation.

To summarize the commercial air transport industry plays a vital role in connecting cities and populations with each other and with the rest of the globe, one of its advantages is safety and speed in transport, it is an industry that facilitates trade and collaborates with the economic growth of the region, as well as improving connectivity and processes in the supply chain of companies.

6. Analysis and discussion

As mentioned above, business sustainability has three basic pillars environmental and socio-economic dimensions. According to Barbieri et al. (2010), a sustainable organization is one that simultaneously seeks to be economically efficient, respect the ability to support the environment and be an instrument of social justice. Proposing the following conceptions: (1) **social dimension:** concern with the social impacts of innovations on human communities inside and outside the organization (unemployment; social exclusion; poverty; organizational diversity etc.); (2) **environmental dimension:** concern with environmental impacts from the use of natural resources and pollutant emissions; (3) **economic dimension:** concern with economic efficiency, without which they would not perpetuate themselves. For companies, this dimension means making a profit and generating competitive advantages in the markets where they operate.

By complying with these three dimensions simultaneously, internal processes and external influences will be more sophisticated and demanding, yet they will allow the competitiveness and innovation of companies. That is why airlines in Latin America and the Caribbean have been working from different perspectives in each of these areas.

6.1. Social dimension:

For a part, the airlines dealt with in this paper, follow the policies of global organizations such as the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO), these air trade companies promote programs such as a zero-tolerance policy of trade and illegal trafficking in endangered species, as well as promote respect and guarantee of human rights and good labor practices in their organizations. Also, they collaborate with the Federation of the Red Cross and the Red Crescent of the Americas to air transfers of humanitarian aid to serve affected population or by transferring rescue personnel, as well as foster initiatives for the construction of social value with vulnerable communities in their home countries and others in the region. With these and other initiatives AeroMexico, Avianca, Interjet, Latam and Aerolíneas Argentinas provide a positive and aligned response to the following SDGs: goal 3: good health and well-being; goal 4: quality education; goal 5: gender equality; goal 8: decent work

and economic growth and goal 10: reduced inequalities, making a better planet for future generations closer.

6.2. Financial dimension:

Nevertheless, on 31 December 2019, the World Health Organization was made aware of a potential new virus that was confirmed on 7 January 2020 by the Chinese government. Coronavirus 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV virus. Its spread around the world has generated a strong impact on economic and social activities, including travel, trade, and tourism, leading to the closure of airports and limited air traffic, directly affecting the aeronautical industry. In the face of this contingency, IATA (2020) has presented the biosecurity scheme that airlines must follow for the return to their activities, it has also said that “To restore air connectivity and to do it with an internationally-consistent, mutually-accepted, and harmonized way”, conducting collaborations between governments and industry.

IATA (2020) stated *"Almost every challenge in aviation requires a team effort to solve it. Today we face the biggest challenge in commercial aviation's history: Restarting an industry that largely has ceased to operate across borders, while ensuring that it is not a meaningful vector for the spread of COVID-19"*. As a result of the global pandemic, the commercial aviation industry in Latin America has made concrete decisions to further avoid negative financial effects, airlines such as Avianca Holdings, Latam Airlines and AeroMexico have taken over Chapter 11 of the U.S. Bankruptcy Code to reorganize their operations and give companies time to cancel their liabilities. In the meantime, Aerolineas Argentinas and Interjet have chosen to request assistance from their governments and all airlines have updated their commercial and economic policies to avoid the penalty to their customers for cancellation or postponement of flights.

It should be noted that during 2019, airlines in Latin America have worked for the optimization of processes with the support of technology, providing a service for punctuality, connectivity, quality, and innovation in their fleet. Besides, as noted above, they have strategic alliances with airlines from other continents and regions, thus promoting the fulfillment of SDGs such as goal 8: decent work and economic growth; goal 9: industry, innovation, and infrastructure and goal 17: partnerships.

6.3. Environmental dimension:

Finally, in the environmental dimension, the 5 airlines present eco-friendly projects and improvements in their activities for the preservation of the environment, some have partially updated their fleet, implementing aircraft with greater technology and lower fuel consumption, thus reducing the CO2

emissions footprint and hearing pollution. They also have environmental policies for saving and recycling and actions to protect the fauna and flora of the region.

Furthermore, these companies are actively involved in discussions on environmental issues in both representative organizations in the aviation sector and multisectoral entities and initiatives, they also comply with adherence to sectoral commitments, such as Carbon Neutral Growth Commitment from 2020 (CNG2020), IATA's voluntary initiative and, the use of biofuels reduces greenhouse gases and promotes efficiency in the air. With these actions, airlines in Latin America and the Caribbean actively contribute to projects not only internally, but also with external communities and organizations thus contributing to the SDGs such as goal 6: clean water and sanitation; goal 12: responsible consumption and production; goal 13: climate action; goal 14: life below water and goal 15: life on land.

7. Conclusions and recommendations

The challenges for commercial aviation sector in Latin America and the Caribbean are due to failures in the organization of services, the lack of infrastructure and policies, which directly affect the competitiveness and social and environmental development of the region, and processes of continuous improvement of regulatory policies applied to the commercial aviation sector must be implemented. However, the regulatory framework for the sector must be flexible and shape-standard to the current situation and the changes that this represents for airlines.

The biggest challenge for the industry is to return to its work and achieve the levels of profitability, efficiency and productivity that were in their 2019 reports, as mentioned during the investigation, airlines had to benefit from rather drastic economic measures, affecting their social performance (given by the loss of labor and markets) and at the financial level (by the significant increase in their liabilities), to the increase in its costs and the total or partial decrease in its sales, in addition, that tourists, users, and customers are sensitive to the use of this means of transport.

Airlines must comply with the protocols and measures published by the International Air Transport Association (IATA) to mitigate risks and allow immediate time-to-do travel. The challenges of the Latin American commercial airlines arise in various modes (infrastructure scarcity, increased negative contingencies, user insecurity, lack of facilitation of processes and standards of government authorities, among others), as well as the lack of coordination between countries. To solve this is necessary, the leadership of governments and stakeholders for the improvement and growth of this great industry.

In fact, the commercial aviation sector is a very capable and avant-garde industry in terms of business sustainability, although the region presents some weaknesses and threats, the commercial aviation companies promote the spirit of continuous improvement, carry out various campaigns in the three basic, social, economic and environmental dimensions, and propose policies and measures for their growth and expansion internally and externally, generating value to Latin America. Although this industry has made great strides, the contingency brought with it an endless element to be explored and recovered, including markets, workforce and customers.

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