

International Journal of Knowledge Management in Tourism and Hospitality

ISSN online: 1756-0330 - ISSN print: 1756-0322

<https://www.inderscience.com/ijkmth>

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DOI: [10.1504/IJKMTH.2023.10059732](https://doi.org/10.1504/IJKMTH.2023.10059732)

Article History:

Received:	26 April 2023
Last revised:	27 April 2023
Accepted:	07 May 2023
Published online:	30 January 2024

An empirical study of the world's oldest airline company who filed bankruptcy during COVID-19 pandemic

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Abstract: The financial indications that Avianca Holdings SA neglected or failed to control between 2013 and 2019 were the subject of this study. Based on secondary information gathered from the company's annual reports, an exploratory study was conducted. The company's annual reports were multi-dimensionally examined using methods and instruments for financial analysis. The findings of this study show that various serious problems existed within the corporation and that the COVID-19 epidemic was not the only factor that contributed to the bankruptcy of the oldest airline in the world. The financial statements of Avianca Holdings SA revealed 15 troubling indicators that the corporation had ignored. Since the past seven years, all 15 indicators, including total operating revenue, total operating expenses, operating profit, profit after tax, and retained earnings, have been significantly negative. Amid

the chaos caused by the COVID-19 pandemic, the aviation industry took the most blow. As a result, the oldest airline in the world, which had already been suffering from financial difficulties for the previous seven years, chose to declare bankruptcy.

Keywords: financial distress; bankruptcy; aviation industry; vertical analysis; horizontal analysis; ratio analysis; trend analysis.

Reference to this paper should be made as follows: Agrawal, R., Raj, R., Kumar, V. and Jha, A. (2024) 'An empirical study of the world's oldest airline company who filed bankruptcy during COVID-19 pandemic', *Int. J. Knowledge Management in Tourism and Hospitality*, Vol. 3, No. 3, pp.220–244.

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1 Introduction

The global economy heavily depends on the airline sector. Around 35% of global trade is carried out by air, and 65.5 million people worldwide are employed in the aviation business, which generates \$2.7 trillion in economic activity (IATA, 2018; Air Transport Action Group, 2018). Around 4.5 billion people were transported globally by aircraft in 2019 to connect people, businesses, and cities all over the world (Air Transport Action Group, 2020). The COVID-19 outbreak (WHO, 2020; Kumar et al., 2023a, 2023b, 2022a, 2022b) compelled nations all around the world to enact lockdowns, prevent travel, and halt all aircraft. The COVID pandemic has highly affected the organisations and their performances (Raj et al., 2023; Rajak et al., 2022; Sachan et al., 2022; Sharma et al., 2021; Singh et al., 2022; Verma et al., 2021). Airports Council International (ACI, 2020) estimates that in 2020, the COVID-19 pandemic will have eliminated half of the airport profits and two-fifths of passenger volume. The International Civil Aviation Organization (ICAO, 2020) predicted that during the first half of 2020, airlines will offer 47% to 58% fewer seats, which would result in a loss of 503 to 607 million passengers and a loss of 112 to 135 billion USD in gross operating profits. According to the International Air Transport Association (IATA, 2020), passenger revenue will decline by 55% and revenue-passenger-kilometres (RPKs) by 48% in 2020. According to the Boston Consulting Group (BCG, 2020), rehabilitation could take 3 to 18 months.

The transportation sector has been particularly badly hit as air travel has declined. According to Josephs (2020), major airlines in the airline sector saw their capacity decline by between 60% and 80%. More airfare reductions by airlines are anticipated as demand declines. According to Fauvelle (2020), it could take years, possibly even a decade, for the aviation industry to recover to its pre-pandemic levels. The sector as a whole is more unpredictable because the timescale for eradicating social segregation and travel restrictions is undetermined (Molenaar et al., 2020). Millions of dollars were lost each month as a result of the high fixed costs that persist even when planes are not in the air. Slotnick (2020) discovered that several airline businesses went out of business, stopped flying, or filed for bankruptcy. According to Caswell (2020), the coronavirus cost the aviation sector about USD 250 billion. Leggett (2020) notes that Easy Jet had laid off its 4,000 cabin crew for nearly two months, Qantas had laid off 20,000, Air Canada had given 15,200 employees the go-ahead to go, and British Airlines had made the decision to restructure and lay off 12,000 personnel. The US Government authorised a significant stimulus programme to provide financial support for the struggling industry (Gilbertson, 2020).

One of the largest airlines in Latin America and the world's oldest airline, Avianca Holdings SA, filed for bankruptcy in May 2020 after travel restrictions across the continent caused the Colombian aviation industry to ground its fleet. Anko Van Der Werff, the company's CEO, declared in a statement to the media that "Avianca is confronting the most serious crisis in our 100-year existence as we navigate the impacts of the COVID-19 pandemic. To safeguard the crucial airline transport and air transport services we offer across Colombia and other countries in Latin America, we think reorganization is the wisest course of action" (*Bridge Chronicle*, 2020; *Aviation Voice*, 2020; *Business Insider*, 2020). Sociedad Colombo Alemana de Transporte Aéreo (SCADTA), a Latin American airline, flew its inaugural flight from Barranquilla to Puerto Colombia in 1921 using F13 Junkers. The flight covered 86,432 kilometres, moved 31,760 kilos, and carried 379 passengers. Since then, the organisation has added

several achievements to its journey and grown significantly. In 2019, Avianca flew 30,537,701 passengers in 280,466 miles to 76 destinations in 27 different countries. Everyone was shocked when this corporation declared bankruptcy in May 2020. To obtain answers to the following research questions, a detailed investigation of Avianca Holdings SA is undertaken in the current study:

- Was COVID-19 the primary factor in Avianca Holdings SA's bankruptcy?
- Does Avianca Holdings SA declare bankruptcy for any additional reasons?
- If so, what were the main reasons for Avianca Holdings SA's bankruptcy?
- Did Avianca Holdings SA exhibit significant warning signs of financial difficulties in prior years, or did something happen recently that caused bankruptcy?

The structure of this work is as follows, research questions are presented in the introduction, followed by a review of the literature and study methodology. Following the study's findings and a discussion of the findings, the study's ramifications, conclusions, and references are discussed.

2 Literature review

Financial distress occurs when a company's assets are worth significantly less after winding up than the whole amount of its creditors' claims (Chen et al., 1995). In Roman, the word 'bankruptcy' means 'broken bench' (Beraho, 2010). Combining the Roman terms 'Bancusis' and 'ruptus' – which both refer to the tradesman's bench where lending institutions conducted their business – create the English phrase 'broken or rotten business' (Beraho, 2010). The first bankruptcy legislation was created in England during the 16th century, even though bankruptcy has been a legal remedy for more than 2,000 years (Beraho, 2010). Back then, declaring bankruptcy was a crime, but today it is seen as a preventative precaution or a company restructuring (Beraho, 2010). According to Altman and Hotchkiss (2006), a company declares bankruptcy when it declares itself to be in a state of impoverishment, typically when the company's total liabilities exceed the value of its total assets. As a result, the company's total net worth is negative, and this frequently leads to an attempt to sell off all of its remaining funds or restructure the business under the protection of the law. According to Walters (1957), a company is deemed bankrupt when it lacks the funds to cover its immediate obligations. According to Jones and Hensher (2005), bankruptcy has a significant negative social and economic impact on the economy. According to Ward (2007), bankruptcy is a legal occurrence rather than an economic one. When a debtor voluntarily files for insolvency or a creditor files a plea against them, legal bankruptcy results in a court decision (Beraho, 2010).

Several factors might cause a business to collapse. Although managerial failure is frequently the main reason why a firm fails, various other factors may also play a role (Hofer et al., 2009; Altman and Hotchkiss, 2006). Altman and Hotchkiss (2006) compiled a list of factors that contributed to the aviation industry's demise. They cite the aviation industry's low-profit margins as the primary factor, which results in a persistent danger of failure (Hofer et al., 2009; Guzhva, 2008; Vasigh et al., 2008). The deregulation of the aircraft industry in the 1970s eliminated the protective shield and the price control regimes, which was the second reason they cited (Chung and Szenberg, 1996; Altman

and Hotchkiss, 2006; Vasigh et al., 2008). The third factor was the overcapacity of many businesses. Because of the increased demand for air cargo during the 1990s, carriers increased their carrying capacities (Hellermann, 2006); however, subsequent events, such as the 2001 World Trade Center bombing and the subsequent economic downturn, resulted in a sudden decline in passengers and cargo, which negatively impacted the carriers who had increased their carrying capacities prior to these events (Bisignani, 2006; Becker and Dill, 2007; Guzhva, 2008; Hofer et al., 2009; Hellermann, 2006). Last but not least, a key factor in an aircraft company's failure is that it typically has a high level of leverage and fixed costs (Vasigh et al., 2008; Bisignani, 2006). According to Laitinen and Chong (1999), six out of ten businesses experience an insolvency as a result of ongoing declines in sales. One of the strongest factors that might cause a corporation to go bankrupt is cash and cash equivalents (Giannopoulos and Sigbjørnsen, 2019; Svirina, 2010). A negative return on assets, in the opinion of Dance and Made (2019), indicates that a company is in financial trouble. The inability of a company to pay its debt on time is one of the main reasons for many businesses to declare bankruptcy (Philosophov et al., 2006).

There is no agreement on which model was the best since the study on the financial difficulty in businesses began in the 1960s (McKee, 2007; Ribbink et al., 2009; Hensher and Jones, 2007; Ward, 2007). In practice, most models need to be standardised for a particular industry (Kroeze, 2005), hence they tend to perform better there than elsewhere. The Altman Z-score model, created by Altman in 1967, is one of the most discussed financial bankruptcy models discussed in the literature. For the past 40 years, Altman (Altman and Hotchkiss, 2006) and numerous others have revised and tested this groundbreaking work on diverse businesses (Kroeze, 2005; Chung and Szenberg, 1996; Scaggs and Crawford, 1986). Nevertheless, none of these models have yet been developed and proven in aviation businesses.

3 Research methodology

A thorough examination of research articles published between 2000 and 2021 was conducted using databases from Scopus, Web of Science, Google Scholar, Research Gate, and EBSCO. Insolvency, financial trouble, business bankruptcy, and insolvency in the aviation industry were the search terms utilised. The criteria for admission were: English-language published studies since 2000; works on issues like the bankruptcy of firms, insolvency in the aviation industry and financial difficulty. Non-English language studies works published before 2000, editorials, letters, and news stories were among the studies that were omitted.

Analysis was done on the secondary information from the financial statements of Avianca Holdings SA from 2013 to 2019. The main goal of this study is to pinpoint the warning signs from a financial standpoint that financially distressed enterprises can consider restructuring the company before declaring bankruptcy. The Avianca Holdings SA annual reports were downloaded by the authors from the website of the business. Advanced Excel was used to analyse Avianca Holdings SA's Consolidated Statement of Comprehensive Income (CI) from 2013 to 2019 and Consolidated Statement of Financial Condition from 2013 to 2019 using the information from its annual reports.

We performed vertical analysis (VA) of the Consolidated Statement of CI, horizontal analysis (HA) of the Consolidated Statement of Financial Position, HA of the

Consolidated Statement of Financial Position, trend analysis (TA) of significant items in the Consolidated Statement of CI, and TA of significant items in the Consolidated Statement of Financial Position. From 2013 to 2019, we also performed a ratio analysis on Avianca Holdings SA, which included analyses of its profitability, efficiency, liquidity and solvency. We chose the important financial signs that signalled financial hardship and prompted Avianca Holdings SA to declare bankruptcy after thoroughly analysing the statements listed above.

4 Data analysis and results

4.1 Results of HA

HA results of the consolidated statement of CI Avianca Holdings SA from the year 2013 to 2019 are shown in Table 1.

- Operating revenue from passengers: Avianca Holdings SA's operating revenue from passengers was not very healthy in the last few years. The company's passenger revenues grew by a negligible 0.01% from 2013 to 2014, dropped by 10.48% from 2014 to 2015, and again fell by 5% from 2015 to 2016. The company's passenger revenue increased by 8.06% from 2016 to 2017 and by another 14.92% from 2017–2018 but again suffered a decline of 4.29% from 2018 to 2019 (Table 1).
- Operating revenue from cargo: Avianca Holdings SA's operating revenue from cargo and others also experienced fluctuations during the last few years. The company's cargo revenue dropped by 5.56% from 2015 to 2016. Though the company's cargo revenue did increase by 4.50% from 2016 to 2017, it decreased by 9.04% from 2017–2018 but again suffered a decline of 11.61% from 2018 to 2019 (Table 1).
- Operating profits: Avianca Holdings SA flight operations cost drastically dropped by 31.59% from 2013 to 2014. The company's flight operation expenses increased by a meagre 2.42% from 2014 to 2015 and by another negligible 0.54% from 2015 to 2016. After this, there was an unusual rise of 58.38% from 2016 to 2017 and another 66.12% from 2017 to 2018. And to our surprise, these expenses again came down by 50.71% from 2018 to 2019 (Table 1).
- Operating profits: Avianca Holdings SA's operating profits also fluctuated drastically during the last few years. The company's operating profits declined by 27.40% from 2013 to 2014, it further dropped by another 21.70% from 2014 to 2015. The company did recover and enjoyed positive returns of 18.12% and 13.61% respectively from 2015 to 2016 and 2016 to 2017. But it is observed that again the company suffered a drop of 20.95% in its operating profits from 2017 to 2018 followed by a sea drop of 338.79% from 2018 to 2019 (Table 1).
- Profit before taxes: Avianca Holdings SA's profit before taxes was consistently bad. The company's profit before taxes was reduced by 39.46% from 2013 to 2014, again dropped by 160.68% from 2014 to 2015, fell by 172.16% from 2015 to 2016, increased by 30.45% from 2016 to 2017, and again reduced by 79.09% from 2017 to 2018 and reduced by another 413.85% from 2018 to 2019 (Table 1).

- Profit after taxes: Avianca Holdings SA's profit after taxes was consistently bad. The company's profit before taxes was reduced by 48.36% from 2013 to 2014, again dropped by 208.57% from 2014 to 2015, fell by 131.67% from 2015 to 2016, increased by 85.655% from 2016 to 2017, and again reduced by 98.61% from 2017 to 2018 and reduced by another 714.79.85% from 2018 to 2019 (Table 1).

HA of Consolidated Statement of Financial Position Avianca Holdings SA from the year 2013–2019 is shown in Table 2.

- Cash and cash equivalents: Avianca Holdings SA cash and cash equivalents were reasonably bad for the last many years. The company's cash and cash equivalents reduced by 12.87% from 2013 to 2014, dropped by 25.20% from 2014–2015 and further decreased by 21.62% from 2015 to 2016. The company's cash and cash equivalents increased by 35.46% from 2016 to 2017 again dropping by 46.34% from 2017 to 2018 increasing by 25.40% from 2018–2019 (Table 2).
- Deposits and other assets: Avianca Holdings SA deposits and other assets had been decreasing for the last many years. The company's deposits and other assets were reduced by 29.39% from 2015 to 2016, again dropped by 33.15% from 2016 to 2017, fell by 0.72% from 2017 to 2018, and decreased by 53.18% from 2018 to 2019 (Table 2).
- Retained earnings: Avianca Holdings SA's retained earnings continued to drop over the last many years. The company's retained earnings decreased by 2.91% from 2016 to 2017, dropped by 27.90% from 2017 to 2018, and fell by 242.42% from 2018 to 2019 (Table 2).
- Total equity: Avianca Holdings SA's total equity decreased in the last few years. The company's total equity dropped by 5.67% from 2016 to 2017, decreased by 27.03% from 2017 to 2018, and reduced by 99.47% from 2018 to 2019 (Table 2).

4.2 Results of VA

VA of the Consolidated Statement of CI of Avianca Holdings SA from the years 2013–2019 is shown in Table 3.

- Revenue from cargo and other: Avianca Holdings SA's revenue from cargo and other has experienced a drop in the last three years. While the company's cargo and other revenue was approximately 20%–21% of the total revenue from FYE 2015 to FYE 2017 but then after that it dropped to 16.58% of the total revenue during FYE 2018 and further reduced to 15.51% during FYE 2019 (Table 3).
- Total operating expenses: Avianca Holdings SA's total operating expenses were substantially high from 2013 onwards. The company's total operating expenses were 91.65% of the total revenue during FYE 2013, 94.06% of the total revenue during FYE 2014, 94.98% of the total revenue during FYE 2015, 93.75% of the total revenue during FYE 2016, 93.39% of the total revenue during FYE 2017, 95.25% of the total revenue during FYE 2018, and 111.99% of the total revenue during FYE 2019 (Table 3).

- Profit after income tax: Avianca Holdings SA's profit after income tax was significantly low for the last many years. The company's profit after income tax was 5.40% of the total revenue during FYE 2013, 2.73% of the total revenue during FYE 2014, -3.20% of the total revenue during FYE 2015, 1.07% of the total revenue during FYE 2016, 1.85% of the total revenue during FYE 2017, 0.02% of the total revenue during FYE 2018, and -19.34% of the total revenue during FYE 2019 (Table 3).

VA of the consolidated statement of financial position of Avianca Holdings SA from the year 2013–2019 is shown in Table 4.

- Cash and cash equivalents: Avianca Holdings SA's cash and cash equivalents were pretty low in the last few years. The company's cash and cash equivalents were 14.20% of total assets during FYE 2013 which went on reducing ever since. Cash and cash equivalents were 10.38% of the total assets during FYE 2014, 7.28% of the total assets during FYE 2015, 5.92% of the total assets during FYE 2016, 7.42% of the total assets during FYE 2017, came down to 3.84% of the total assets during FYE 2018, were 4.71% of the total assets during FYE 2019 (Table 4).
- Restricted cash: Avianca Holdings SA's restricted cash was almost negligible all through. The company's restricted cash was 0.45% of total assets during FYE 2013 which went on reducing ever since. Restricted cash was 0.03% of the total assets during FYE 2014, 0.08% of the total assets during FYE 2015, 0.08% of the total assets during FYE 2016, 0.08% of the total assets during FYE 2017, came down to 0.07% of the total assets during FYE 2018, were 0.01% of the total assets during FYE 2019 (Table 4).
- Retained earnings: Avianca Holdings SA's retained earnings stayed low for a long and eventually became negative. The company's retained earnings were 6.78% of the total liability during FYE 2013, 5.76% of the total liability during FYE 2014, 7.70% of the total liability during FYE 2015, 8.58% of the total liability during FYE 2016, 7.71% of the total liability during FYE 2017, were 5.37% of the total liability during FYE 2018, were -7.63% of the total liability during FYE 2019 (Table 4).
- Total equity: Avianca Holdings SA's total equity reduced drastically. The company's total equity was 23.46% of the total liability during FYE 2013, 19.70% of the total liability during FYE 2014, 20.83% of the total liability during FYE 2015, 22.36% of the total liability during FYE 2016, 19.56% of the total liability during FYE 2017, were 13.76% of the total liability during FYE 2018, were 0.07% of the total liability during FYE 2019 (Table 4).

Table 1 HA of consolidated statement of CI from 2013–2019

	% change from 2013 to 2014	% change from 2014 to 2015	% change from 2015 to 2016	% change from 2016 to 2017	% change from 2017 to 2018	% change from 2018 to 2019
<i>Operating revenue</i>						
Passenger	0.01	-10.48	-5.00	8.06	14.92	-4.29
Cargo and other	12.53	7.43	-5.56	4.50	-9.04	-11.61
Total operating revenue	2.04	-7.28	-5.11	7.33	10.11	-5.51
<i>Operating expenses</i>						
Flight operations	-31.59	2.42	0.54	58.39	66.12	-50.71
Aircraft fuel	1.51	-25.19	-22.00	17.60	31.40	-0.77
Ground operations	15.65	3.71	3.35	5.63	5.46	0.68
Aircraft rentals	9.35	6.11	-0.95	-11.36	-3.97	-95.61
Passenger services	7.63	-3.35	1.63	9.99	13.09	-6.50
Maintenance and repairs	42.53	15.18	-15.83	7.61	-26.41	24.79
Air traffic	14.44	-1.54	7.88	10.79	11.15	3.47
Sales and marketing	3.63	1.17	-11.01	-5.55	3.08	-5.80
General, administrative and other	-35.80	6.67	6.45	-5.17	14.30	117.20
Salaries, wages and benefits	7.53	-8.23	-0.66	6.81	7.64	-5.71
Depreciation, amortisation and impairment	17.15	16.14	16.82	16.27	24.24	173.26
Total operating expenses	4.72	-6.36	-6.34	6.91	12.31	11.10
Operating profit	-27.40	-21.70	18.12	13.61	-20.95	-338.79
Interest expense	18.23	26.43	1.90	6.20	15.80	41.29
Interest income	47.85	11.21	-31.35	11.29	-30.38	-10.62
Derivative instruments	-151.96	146.18	-99.47	-176.36	101.37	-99.17
Foreign exchange	-56.32	-188.28	-86.52	-15.77	-54.27	162.36
Profit before income tax	-39.46	-160.68	-172.16	30.45	-79.09	-413.85
Income tax expense – current	-16.17	-48.85	58.84	28.09	-22.78	-2.49
Income tax expense – deferred	167.67	-16.67	-51.69	-326.59	-53.90	-64.08
Total income tax expense	8.22	-38.29	9.87	-41.01	0.52	18.65
Profit after income tax	-48.36	-208.57	-131.67	85.65	-98.61	-714.79

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Table 2 HA of consolidated statement of financial from 2013–2019

Assets	% change from 2013 to 2014	% change from 2014 to 2015	% change from 2015 to 2016	% change from 2016 to 2017	% change from 2017 to 2018	% change from 2018 to 2019
Current assets						
Cash and cash equivalents	-12.87	-25.20	-21.62	35.46	-46.34	25.40
Restricted cash	-91.56	171.62	-0.48	1.75	-11.38	-79.35
Available-for-sale securities						
Accounts receivable, net of provision for doubtful accounts	28.24	-21.27	12.25	8.45	-15.34	-18.89
Accounts receivable from related parties	3.64	-15.75	-16.43	-10.78	-63.44	432.27
Expendable spare parts and supplies, net of provision for obsolescence	23.43	4.81	19.77	18.07	-7.05	-2.28
Prepaid expenses	19.94	-18.47	30.67	67.03	0.11	-30.89
Assets held for sale	-81.62	142.73	-100.00	0.00	0.00	0.00
Deposits and other assets	38.93	-24.93	22.49	26.14	-55.55	-56.36
Total current assets	2.21	-21.74	-1.88	25.04	-14.69	-4.99
Non-current assets						
Available-for-sale securities	1492.96	234.60	-90.42	-27.63	-100.00	0.00
Deposits and other assets	15.24	13.06	-29.39	-33.15	-0.72	-53.18
Accounts receivable, net of provision for doubtful accounts	30.72	40.81	54.15	52.55	-74.72	-36.43
Accounts receivable from related parties						
Intangible assets	14.59	-0.55	-0.20	3.31	20.45	-1.61
Deferred tax assets	-29.92	551.15	-97.48	344.29	-5.38	10.55
Property and equipment, net	27.67	11.42	1.10	4.97	8.55	-6.51
Total non-current assets	24.92	14.44	-3.92	4.79	7.11	-7.10
Total assets	19.24	6.68	-3.60	8.03	3.53	2.39

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Table 2 HA of consolidated statement of financial from 2013–2019 (continued)

<i>Liabilities and equity</i>	<i>% change from 2013 to 2014</i>	<i>% change from 2014 to 2015</i>	<i>% change from 2015 to 2016</i>	<i>% change from 2016 to 2017</i>	<i>% change from 2017 to 2018</i>	<i>% change from 2018 to 2019</i>
Current liabilities						
Current portion of long-term debt	46.00	-9.98	-1.49	40.65	9.56	39.14
Accounts payable	7.54	-12.02	2.38	6.87	-3.87	4.75
Accounts payable to related parties	82.67	-31.51	-3.99	-20.78	-60.67	31.34
Accrued expenses	2.46	-14.52	17.43	34.48	-35.23	-27.53
Provisions for legal claims	-5.52	-5.45	38.32	-36.70	-33.37	159.24
Provisions for return conditions	85.95	-14.31	0.91	-27.13	15.39	232.89
Employee benefits	-6.11	-33.17	20.39	-2.21	996.93	-20.54
Air traffic liability	-6.23	-6.21	20.51	3.46	-65.44	0.83
Other liabilities	364.77	-90.05	-12.65	-15.07	-58.99	32.35
Total current liabilities	18.06	-16.31	7.98	13.00	14.05	2.85
Non-current liabilities						
Long-term debt	38.98	12.84	-6.29	10.90	6.31	17.85
Accounts payable	63.93	-83.00	-24.03	85.95	40.18	67.41
Provisions for return conditions	25.67	55.03	10.61	19.27	-11.39	-4.12
Employee benefits	-37.22	-26.37	-9.51	17.37	-18.84	7.50
Deferred tax liabilities	98.49	-14.50	51.04	26.84	-28.58	0.18
Air traffic liability	17.96	8.83	4.89	6.83	123.56	-1.95
Other liabilities non-current	-27.68	81.61	-3.67	2.58	349.19	-24.61
Total non-current liabilities	29.77	18.21	-11.22	11.44	9.31	14.95
Total liabilities	25.09	5.18	-5.46	11.98	10.95	18.65
Equity						
Common stock	-0.75	0.00	0.00	0.00	0.00	0.00
Preferred stock	1.51	0.00	0.00	0.00	0.00	0.00
Additional paid-in capital on common stock	-0.75	0.00	0.00	0.00	0.00	0.00
Additional paid-in capital on preferred stock	0.38	0.00	0.00	0.00	0.00	0.00
Retained Earnings	1.30	42.58	7.40	-2.91	-27.90	-242.42
Revaluation and other reserves	-14.93	-25.08	48.77	113.35	-192.76	44.25
Total equity attributable to the company	0.02	12.02	3.44	1.08	-18.37	-82.06
Non-controlling interest	27.50	131.25	5.93	-484.52	134.36	-99.89
Total equity	0.16	12.81	3.47	-5.67	-27.03	-99.47
Total liabilities and equity	19.24	6.68	-3.60	8.03	3.53	0.21

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Table 3 VA consolidated statement of CI from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
<i>Operating revenue</i>							
Passenger	83.79	82.12	79.29	79.38	79.93	83.42	84.49
Cargo and other	16.21	17.88	20.71	20.62	20.07	16.58	15.51
Total operating revenue	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<i>Operating expenses</i>							
Flight operations	1.80	1.21	1.33	1.41	2.08	3.14	1.64
Aircraft fuel	28.76	28.61	23.08	18.98	20.79	24.81	26.05
Ground operations	7.46	8.45	9.46	10.30	10.14	9.71	10.34
Aircraft rentals	5.94	6.36	7.28	7.60	6.28	5.47	0.25
Passenger services	3.11	3.28	3.42	3.67	3.76	3.86	3.82
Maintenance and repairs	4.09	5.72	7.10	6.30	6.32	4.22	5.57
Air traffic	3.91	4.38	4.65	5.29	5.46	5.51	6.04
Sales and marketing	12.68	12.88	14.05	13.18	11.60	10.86	10.82
General, administrative and other	5.58	3.51	4.04	4.53	4.00	4.16	9.55
Salaries, wages and benefits	14.64	15.43	15.27	15.99	15.91	15.55	15.52
Depreciation, amortisation and impairment	3.68	4.22	5.29	6.51	7.06	7.96	23.20
Total operating expenses	91.65	94.06	94.98	93.75	93.39	95.25	111.99
Operating profit	8.35	5.94	5.02	6.25	6.61	4.75	−11.99
Interest expense	−2.46	−2.85	−3.88	−4.17	−4.13	−4.34	−6.49
Interest income	0.25	0.36	0.44	0.32	0.33	0.21	0.20
Derivative instruments	−0.25	0.13	14.35	0.08	−0.06	−5.32	−0.05
Foreign exchange	0.51	0.22	−4.07	−0.58	−0.45	−0.19	−0.52
Profit before income tax	6.41	3.80	−2.49	1.89	2.30	0.44	−18.83
Income tax expense – current	−0.87	−0.72	−0.40	−0.66	−0.79	−0.56	−0.57
Income tax expense – deferred	−0.13	−0.35	−0.32	−0.16	0.34	0.14	0.05
Total income tax expense	−1.01	−1.07	−0.71	−0.82	−0.45	−0.41	−0.52
Profit after income tax	5.40	2.73	−3.20	1.07	1.85	0.02	−19.34

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Table 4 VA of consolidated statement of financial position from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
<i>Assets</i>							
Current assets							
Cash and cash equivalents	14.20	10.38	7.28	5.92	7.42	3.84	4.71
Restricted cash	0.45	0.03	0.08	0.08	0.08	0.07	0.01
Available-for-sale securities	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Accounts receivable, net of provision for doubtful accounts	5.35	5.75	4.24	4.94	4.96	4.06	3.21
Accounts receivable from related parties	0.51	0.44	0.35	0.30	0.25	0.09	0.46
Expendable spare parts and supplies, net of provision for obsolescence	1.03	1.06	1.04	1.30	1.42	1.27	1.21
Prepaid expenses	0.90	0.91	0.69	0.94	1.45	1.41	0.95
Assets held for sale	0.14	0.02	0.05	0.00	0.00	0.00	0.00
Deposits and other assets	2.42	2.82	1.98	2.52	2.94	1.26	0.54
Total current assets	25.01	21.44	15.72	16.00	18.52	15.26	14.16
Non-current assets							
Available-for-sale securities	0.29	3.84	12.04	1.20	0.80	0.00	0.00
Deposits and other assets	3.65	3.53	3.74	2.74	1.70	1.63	0.74
Accounts receivable, net of provision for doubtful accounts	0.63	0.69	0.91	1.45	2.05	0.50	0.31
Accounts receivable from related parties	0.00	0.18	0.00	0.00	0.00	0.00	0.00
Intangible assets	7.01	6.74	6.28	6.50	6.22	7.23	6.95
Deferred tax assets	0.98	0.58	3.52	0.09	0.38	0.35	0.37
Property and equipment, net	62.43	66.85	69.81	73.21	71.14	74.59	68.10
Total non-current assets	74.99	78.56	84.28	84.00	81.48	84.29	76.47
Total assets	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<i>Liabilities and equity</i>							
Current liabilities							
Current portion of long-term debt	6.07	7.43	6.27	6.40	8.34	8.82	12.25
Accounts payable	9.83	8.87	7.31	7.76	7.68	7.13	7.45
Accounts payable to related parties	0.15	0.22	0.14	0.14	0.10	0.04	0.05
Accrued expenses	2.61	2.24	1.79	2.19	2.72	1.70	1.23
Provisions for legal claims	0.29	0.23	0.20	0.29	0.17	0.11	0.28
Provisions for return conditions	0.64	0.99	0.80	0.84	0.56	0.63	2.09
Employee benefits	1.01	0.80	0.50	0.62	0.56	5.98	4.74
Air traffic liability	9.50	7.47	6.56	8.21	7.86	2.62	2.64
Other liabilities	0.53	2.06	0.19	0.17	0.14	0.05	0.07
Total current liabilities	30.61	30.31	23.77	26.63	27.85	30.68	31.49

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Table 4 VA of consolidated statement of financial position from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
<i>Liabilities and equity</i>							
Non-current liabilities							
Long-term debt	37.68	43.91	46.45	45.15	46.35	47.59	55.97
Accounts payable	0.05	0.34	0.05	0.04	0.07	0.10	0.17
Provisions for return conditions	1.08	1.14	1.66	1.90	2.10	1.80	1.72
Employee benefits	5.33	2.81	1.94	1.82	1.98	1.55	1.66
Deferred tax liabilities	0.15	0.26	0.20	0.32	0.38	0.26	0.26
Air traffic liability	1.41	1.39	1.42	1.54	1.53	3.30	3.23
Other liabilities non-current	0.23	0.14	0.23	0.23	0.22	0.96	0.72
Total non-current liabilities	45.93	49.99	55.39	51.01	52.62	55.56	63.73
Total liabilities	76.54	80.30	79.17	77.64	80.47	86.24	102.11
Equity							
Common stock	1.61	1.34	1.25	1.30	1.20	1.16	1.16
Preferred stock	0.80	0.68	0.64	0.66	0.61	0.59	0.59
Additional paid-in capital on common stock	4.56	3.80	3.56	3.69	3.42	3.30	3.30
Additional paid-in capital on preferred stock	9.03	7.60	7.12	7.39	6.84	6.61	6.59
Retained earnings	6.78	5.76	7.70	8.58	7.71	5.37	−7.63
Revaluation and other reserves	0.56	0.40	0.28	0.43	0.85	−0.76	−1.10
Total equity attributable to the company	23.33	19.57	20.55	22.05	20.63	16.27	2.91
Non-controlling interest	0.12	0.13	0.28	0.31	−1.11	−2.51	−2.84
Total equity	23.46	19.70	20.83	22.36	19.53	13.76	0.07
Total liabilities and equity	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

4.3 Results of TA

TA of selected financial indicators of Avianca Holdings SA from the years 2013–2019 is shown in Table 5.

- Total operating revenue: Avianca Holdings SA's total operating revenue merely increased by 2% in 2014, dropped by 5% in 2015, dropped by 10% in 2016, dropped by 4% in 2017, increased by 6% during 2018 and 2019 company's total operating revenue were same as that of 2013 (Table 5).
- Operating profit: Avianca Holdings SA's operating profits dropped by 7% in 2014, dropped by 43% in 2015, dropped by 33% in 2016, dropped by 24% in 2017, dropped by 40% in 2018, and decreased by 244% in 2019 (Table 5).

- Profit after tax: Avianca Holdings SA's decreased by 48% in 2014, dropped by 156% in 2015, dropped by 82% in 2016, dropped by 67% in 2017, dropped by 100% in 2018, and decreased by 459% in 2019 (Table 5).
- Long-term debt: Avianca Holdings SA's merely increased by 39% in 2014, increased by 57% in 2015, increased by 47% in 2016, increased by 63% in 2017, increased by 73% in 2018, and increased by 104% in 2019 (Table 5).
- Total current assets: Avianca Holdings SA's merely increased by 2% in 2014, dropped by 20% in 2015, dropped by 22% in 2016, dropped by 2% in 2017, decreased by 16% in 2018, and decreased by 20% during 2019 (Table 5).
- Total current liabilities: Avianca Holdings SA's merely increased by 18% in 2014, dropped by 1% in 2015, increased by 7% in 2016, increased by 21% in 2017, increased by 37% in 2018, and again increased by 41% during 2019 (Table 5).

Table 5 TA of selected financial indicators from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
Total operating revenue	100	102	95	90	96	106	100
Operating profit	100	73	57	67	76	60	–144
Profit after tax	100	52	–56	18	33	0	–359
Long-term debt	100	139	157	147	163	173	204
Total current assets	100	102	80	78	98	84	80
Total current liabilities	100	118	99	107	121	137	141

Note: 2013 has been taken as the base year for conducting the TA.

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

4.4 Results of ratio analysis

4.4.1 Profitability ratios

The profitability ratios of Avianca Holdings SA from the year 2013–2019 are shown in Table 6. Figure 1 shows the graph of Avianca Holdings SA from 2013 to 2019.

- Profit margin ratio: Avianca Holdings SA's profit margin ratio was 5.40% in 2013, it further came down to 2.73% in 2014. During 2015, the company had a negative return of 3.20%, its profit margin ratio improved to 1.07% in 2016, further improved marginally to 1.85% in 2017, but the company's margins became negligible in 2018 to 0.02% and then drastically came down to –19.34% during 2019 (Table 6 and Figure 1).
- Return on investment: Avianca Holdings SA's return on investment was 4.80% in 2013, it came down to 2.26% in 2014, when to become –2.19% in 2015, improved marginally to 0.68% during 2016, further rose to 1.24% during 2017, became negligible to 0.02% in 2018 and to –12.44% during 2019 (Table 6 and Figure 1).

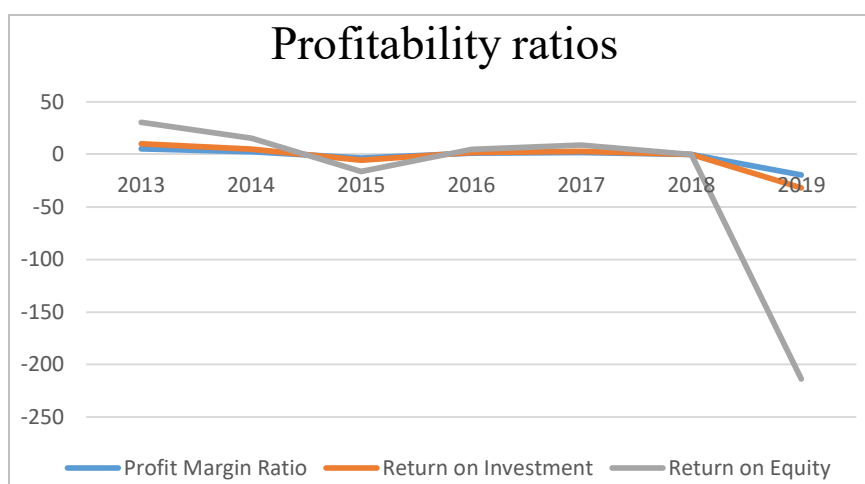
- Return on equity: Avianca Holdings SA's was pretty decent at 20.48% in 2013, it drastically came down to 10.57% in 2014, became -10.78% in 2015, rose to 3.16% during 2016, and further increased to 5.94% during 2017, almost became negligible at 0.10% during 2018 and was massively low at -181.94% during 2019 (Table 6 and Figure 1).

Table 6 Profitability ratios of Avianca Holdings SA from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
Profit margin ratio	5.40	2.73	-3.20	1.07	1.85	0.02	-19.34
Return on investment	4.80	2.26	-2.19	0.68	1.24	0.02	-12.44
Return on equity	20.48	10.57	-10.78	3.16	5.94	0.10	-181.94

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Figure 1 Profitability ratios of Avianca Holdings SA from 2013 to 2019 (see online version for colours)



Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

4.4.2 Efficiency ratios

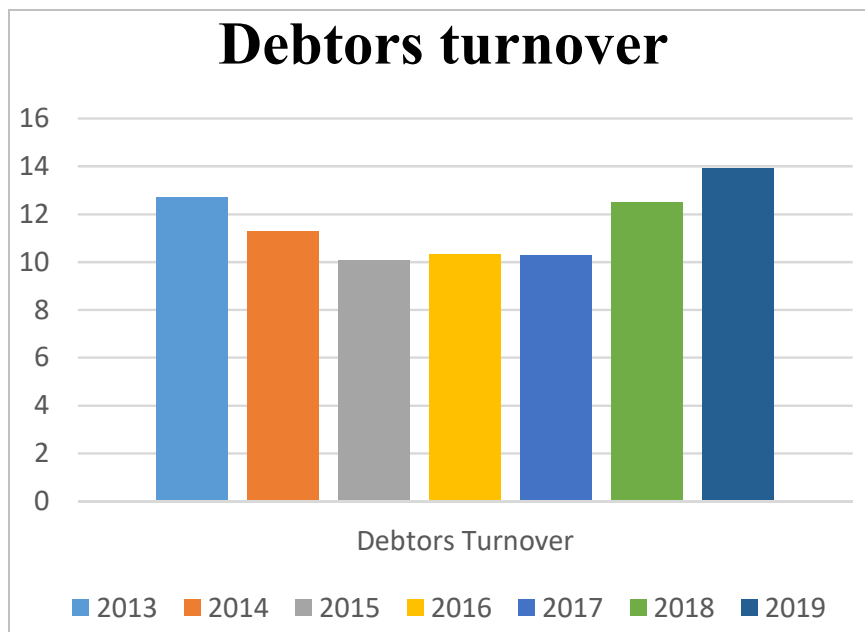
The efficiency ratios of Avianca Holdings SA from the year 2013–2019 are shown in Table 7. Figure 2 shows the graph of debtor turnover ratios of Avianca Holdings SA from 2013 to 2019.

- Debtor's turnover: Avianca Holdings SA's debtor turnover remained stable all through. The company's debtor turnover was 12.73 times in 2013, came down to 11.26 in 2014, further dropped to 10.09 times in 2015, and 10.28 times in 2017. The company's debtor turnover improved to 12.51 times in 2018 and to 13.90 times in 2019 (Table 7 and Figure 2).

Table 7 Efficiency ratios of Avianca Holdings SA from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
Debtors turnover	12.73	11.26	10.09	10.33	10.28	12.51	13.90

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Figure 2 Debtors turnover ratios of Avianca Holdings SA from 2013 to 2019 (see online version for colours)

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

4.4.3 Liquidity ratios

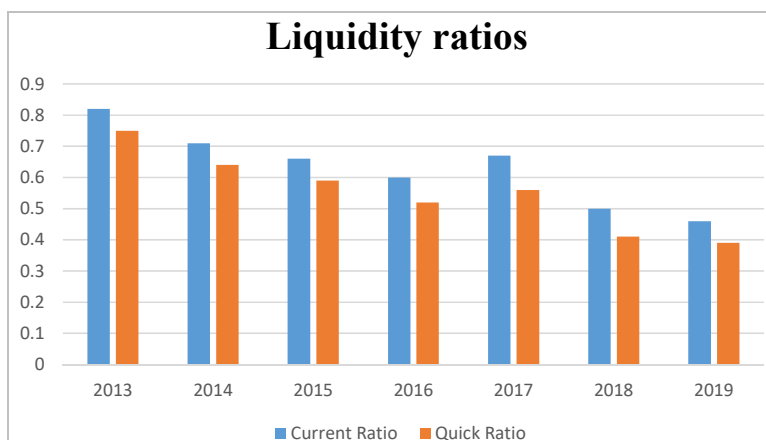
The liquidity ratios of Avianca Holdings SA from the years 2013–2019 are shown in Table 8. Figure 3 shows the graph of the liquidity ratios of Avianca Holdings SA from the year 2013 to 2019.

- Current ratio: Avianca Holdings SA's current ratio was 0.82:1 in 2013, 0.71:1 in 2014, 0.66:1 in 2015, 0.60:1 in 2016, 0.67:1 in 2017, 0.50:1 in 2018, and 0.46:1 during 2019 (Table 8 and Figure 3).
- Quick ratio: Avianca Holdings SA's quick ratio was 0.75:1 in 2013, 0.64:1 in 2014, 0.59:1 in 2015, 0.52:1 in 2016, 0.56:1 in 2017, 0.41:1 in 2018, and 0.39:1 during 2019 (Table 8 and Figure 3).

Table 8 Liquidity ratios of Avianca Holdings SA from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
Current ratio	0.82	0.71	0.66	0.60	0.67	0.50	0.46
Quick ratio	0.75	0.64	0.59	0.52	0.56	0.41	0.39

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Figure 3 Liquidity ratios of Avianca Holdings SA from 2013 to 2019 (see online version for colours)

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

4.4.4 Solvency ratios

The solvency ratios of Avianca Holdings SA from the years 2013–2019 are shown in Table 9. Figure 4 shows a graph of the solvency ratios of Avianca Holdings SA from the years 2013 to 2019.

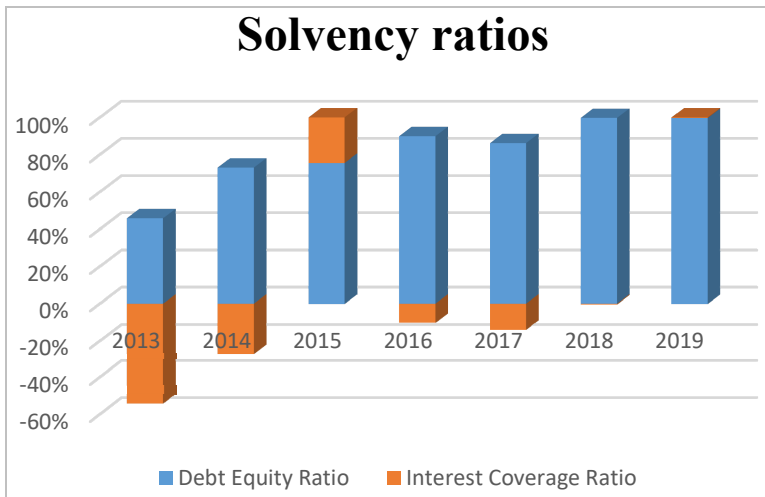
- Debt equity ratio: Avianca Holdings SA's debt equity ratio was 1.86:1 in 2013, 2.61:1 in 2014, 2.53:1 in 2015, 2.31:1 in 2016, 2.80:1 in 2017, increased to 4.10:1 during 2018, and 939.87:1 during 2019 (Table 9 and Figure 4).
- Interest coverage ratio: Avianca Holdings SA's interest coverage ratio was 2.20 times in 2013, 0.96 times during 2014, 0.82 times during 2015, 0.26 times in 2016, 0.45 times during 2017, 0.01 times during 2018, and 2.98 times during 2019 (Table 9 and Figure 4).

Table 9 Solvency ratios of Avianca Holdings SA from 2013–2019

	2013	2014	2015	2016	2017	2018	2019
Debt equity ratio	1.86	2.61	2.53	2.31	2.80	4.10	939.87
Interest coverage ratio	–2.20	–0.96	0.82	–0.26	–0.45	–0.01	2.98

Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

Figure 4 Solvency ratios of Avianca Holdings SA from 2013 to 2019 (see online version for colours)



Source: Author creation, Avianca Holdings SA Annual Reports from Annual Report of 2014, 2015, 2016, 2017, 2018 and 2019

5 Discussion and findings

5.1 Warning signs from horizontal, vertical, and TA of Avianca Holdings SA from 2013 to 2019

- **Total operating revenue:** The TA reveals that Avianca Holdings SA's total operating revenue merely increased by 2% in 2014, dropped by 5% in 2015, dropped by 10% in 2016, dropped by 4% in 2017, increased by 6% in 2018 and during 2019 the company's total operating revenue was same as that of 2013 (Table 5). The HA reveals that revenue from passengers dropped by 10.48% and 5% from 2015 to 2016 and again decreased by 4.29% in 2019 and revenue from cargo came down from 5.56% to 9.04 and 11.61 during 2016, 2017 and 2019, respectively (Table 1). This company failed considerably to sustain and grow its operating revenue year after year and eventually declared financial insolvency. These findings research are congruous with the findings of Laitinen and Chong (1999) who attested that out of ten companies, six companies end up declaring bankruptcy because of a continuous decline in sales revenue.
- **Total operating expenses:** The VA reveals that Avianca Holdings SA's total operating expenses were substantially high from 2013 onwards. The company's total operating expenses were 91.65% of the total revenue during FYE 2013, 94.06% of the total revenue during FYE 2014, 94.98% of the total revenue during FYE 2015, 93.75% of the total revenue during FYE 2016, 93.39% of the total revenue during FYE 2017, 95.25% of the total revenue during FYE 2018, and 111.99% of the total revenue during FYE 2019 (Table 3). This is another serious indicator that the

management seems to have overlooked and ignored and eventually turned out to be fatal for Avianca Holdings SA and the company had to file for bankruptcy.

- **Operating profit:** The TA reveals that Avianca Holdings SA's operating profits dropped by 7% in 2014, dropped by 43% in 2015, dropped by 33% in 2016, dropped by 24% in 2017, dropped by 40% in 2018, and decreased by 244% during 2019 (Table 5). The HA reveals that Avianca Holdings SA's operating profits also fluctuated drastically during the last few years. The company's operating profits declined by 27.40% from 2013 to 2014, it further dropped by another 21.70% from 2014 to 2015. The company did enjoy positive returns of 18.12% and 13.61% respectively from 2015 to 2016 and 2016 to 2017. But suffered a huge drop of 20.95% in its operating profits from 2017 to 2018 followed by a sea drop of 338.79% from 2018 to 2019 (Table 1).
- **Profit after tax:** The TA reveals that Avianca Holdings SA's decreased by 48% in 2014, dropped by 156% in 2015, dropped by 82% in 2016, dropped by 67% in 2017, dropped by 100% in 2018, and decreased by 459% during 2019 (Table 5). The HA reveals that Avianca Holdings SA's profit after taxes was also consistently bad. The company's profit before taxes was reduced by 48.36% from 2013 to 2014, again dropped by 208.57% from 2014 to 2015, fell by 131.67% from 2015 to 2016, increased by 85.655% from 2016 to 2017, and again reduced by 98.61% from 2017 to 2018 and reduced by another 78314.79.85% from 2018 to 2019 (Table 1). The VA reveals that the company's profit after tax was merely 5.40 in a sale of 100 during 2013, which came down to 2.73 in 2014, -3.20 in 2015, 1.07 in 2016, 1.85 in 2017, 0.02 in 2018, and -19.34 in 2019 (Table 3).
- **Retained earnings:** Avianca Holdings SA's retained earnings continued to drop over the last many years. The company's retained earnings decreased by 2.91% from 2016 to 2017, dropped by 27.90% from 2017 to 2018, and fell by 242.42% from 2018 to 2019 (Table 2).
- **Total current assets:** The TA reveals that Avianca Holdings SA's merely increased by 2% in 2014, dropped by 20% in 2015, dropped by 22% in 2016, dropped by 2% in 2017, decreased by 16% during 2018 and decreased by 20% during 2019 (Table 5).
- **Cash and cash equivalents:** The HA reveals that Avianca Holdings SA's cash and cash equivalents were reasonably bad for the last many years. The company's cash and cash equivalents reduced by 12.87% from 2013 to 2014, dropped by 25.20% from 2014–2015 and further decreased by 21.62% from 2015 to 2016. The company's cash and cash equivalents increased by 35.46% from 2016 to 2017 again dropping by 46.34% from 2017 to 2018 increasing by 25.40% from 2018–2019 (Table 2). This demonstrates a paucity of funds brought on by bad management. According to Walters (1957), a company is deemed bankrupt if it has insufficient cash on hand to cover all of its immediate obligations. This leads us to the conclusion that cash and its equivalents constitute one of the major factors that will cause this company to collapse (Giannopoulos and Sigbjørnsen, 2019; Svirina, 2010).
- **Long-term debt:** The TA reveals that Avianca Holdings SA's merely increased by 39% in 2014, increased by 57% in 2015, increased by 47% in 2016, increased by 63% in 2017, increased by 73% in 2018, and increased by 104% in 2019 (Table 5).

- Total current liabilities: The TA reveals that Avianca Holdings SA's merely increased by 18% in 2014, dropped by 1% in 2015, increased by 7% in 2016, increased by 21% in 2017, increased by 37% in 2018, and again increased by 41% during 2019 (Table 5).

5.2 *Warning sign from ratio analysis of Avianca Holdings SA from 2013 to 2019*

- Profit margin ratio: The profitability analysis reveals that Avianca Holdings SA's profit margin ratio was 5.40% in 2013, it further came down to 2.73% in 2014. During 2015, the company had a negative return of 3.20%, its profit margin ratio improved to 1.07% in 2016, further improved marginally to 1.85% in 2017, but the company's margins became negligible in 2018 to 0.02% and then drastically came down to -19.34% during 2019 (Table 6 and Figure 1).
- Return on investment: The profitability analysis reveals that Avianca Holdings SA's return on investment was 4.80% in 2013, it came down to 2.26% in 2014, when to become -2.19% in 2015, improved marginally to 0.68% during 2016, further rose to 1.24% during 2017, became negligible to 0.02% in 2018 and to -12.44% during 2019 (Table 6 and Figure 1). Return on assets helps to assess how efficiently the company could utilise its existing assets. Dance and Made (2019) found that negative return on investments hints at a company's poor financial condition.
- Return on equity: The profitability analysis reveals that Avianca Holdings SA's was pretty decent at 20.48% during 2013, it drastically came down to 10.57% in 2014, became -10.78% in 2015, rose to 3.16% during 2016, and further increased to 5.94% during 2017, almost became negligible at 0.10% during 2018 and was massively low at -181.94% during 2019 (Table 6 and Figure 1).
- Current ratio: The liquidity analysis reveals that Avianca Holdings SA's current ratio was 0.82:1 in 2013, 0.71:1 in 2014, 0.66:1 in 2015, 0.60:1 in 2016, 0.67:1 in 2017, 0.50:1 during 2018, and 0.46:1 during 2019 (Table 8 and Figure 3). One of the prominent causes that triggered bankruptcy is the incapability to pay off the debt (Philosophov et al., 2006).
- Quick ratio: The liquidity analysis reveals that Avianca Holdings SA's quick ratio was 0.75:1 in 2013, 0.64:1 in 2014, 0.59:1 in 2015, 0.52:1 in 2016, 0.56:1 in 2017, 0.41:1 during 2018, and 0.39:1 during 2019 (Table 8 and Figure 3). One of the prominent causes that triggered bankruptcy is the incapability to pay off the debt (Philosophov et al., 2006).
- Interest coverage ratio: The solvency analysis reveals that Avianca Holdings SA's interest coverage ratio was 2.20 times in 2013, 0.96 times in 2014, 0.82 times in 2015, 0.26 times in 2016, 0.45 times in 2017, 0.01 times in 2018 and 2.98 times during 2019 (Table 9 and Figure 4). One of the prominent causes that triggered bankruptcy is the incapability to pay off the debt (Philosophov et al., 2006).

6 Implication of the study

The main goal of this research study was to gain a thorough understanding of business failures and the primary causes that led a corporation to declare bankruptcy. This study aims to look into the elements that cause bankruptcy and that need to be properly watched to predict and reduce future risk. This study's primary objective was to examine the financial signs or signals that Avianca Holdings SA ignored or was unable to control between 2013 and 2019. This will also provide information for developing and putting into practice strategies for future security, survival and growth. All businesses and all significant stakeholders, who are adversely affected by company failure, will greatly benefit from the study's findings.

Past research has discussed both financial and non-financial variables that contribute to a company's bankruptcy (Ropega, 2011; Bhavani et al., 2021; Agrawal et al., 2022). In order to explore the indicators that Avianca Holdings SA overlooked and which ultimately led to the firm's financial hardship and bankruptcy, we extracted all the financial information that was available in the company from 2013 through 2019 for this study. Our results will be of great interest to all types of corporate enterprises, particularly aviation firms, investors, market analysts, authorities and the general public. Our findings provide significant contributions to the current literature. We have looked at a wide spectrum and variety of financial metrics and their implications for the future performance of Avianca Holdings SA. This study provides support for the information provided to investors about the company's operations from 2013 to 2019.

7 Conclusions

The financial performance of Avianca Holdings SA gave adequate warnings and indicators which hinted at the company moving toward financial distress. Right from decreasing total revenue, net profit, and return on assets, and lack of liquidity, as well as poor solvency situation further worsened due to the outbreak of the COVID-19 pandemic and travel bans imposed across the world. So though it seemed that Avianca Holding SA called off due to the COVID-19 pandemic the reality is the company was experiencing adverse conditions since back 2013 and it was the pandemic that worsened the situation further.

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