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Financial Analysis on United Airlines, Inc.

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Abstract: This paper first introduces the general background because the epidemic has affected many industries and the aviation industry has been greatly affected. The second is to introduce the development history and main business of United Airlines, as well as the recent events of United Airlines. Through the financial reports of United Airlines in the three years before and after the epidemic, the income and expenditure of United Airlines' economic situation were analyzed. The calculated financial ratios are also used to evaluate and forecast the performance of United Airlines (three competitors have been compared). Finally, all the data are analyzed and summarized, and strategies (changing the layoff strategy and strengthening the ESG strategy) and suggestions (strengthening the awareness of corporate culture) are put forward to United Airlines to gain greater advantages in the future competition, so as to seize a new market and respond to the post-epidemic era.

Keywords: aviation industry, United Airlines, COVID-19 pandemic, financial analysis

1. Introduction

American Airlines has formed an oligopoly of four companies, including American Airlines, Delta Airlines, United Airlines and Southwest Airlines. These four companies accounted for nearly 80% of the domestic market in the United States, bringing record profit margins and sustained economic profits, and the profit margin reached the highest level in history in 2015 [1]. However, from 2019 to the first half of 2020, the aviation industry encountered many difficulties. In 2019, the Boeing 737MAX series aircraft caused two air crashes of Lion Air and Egypt Air. In the seventh week after the ban, American Airlines, Southwest Airlines and Nordic Airlines lost nearly 600 million dollars due to the merger of the three companies because they could not use 737 Max. At the beginning of 2020, the novel coronavirus triggered a global epidemic, leading people to isolate at home to reduce the risk of infection and sharply reduce the demand for travel. As the aviation business will generate a large number of liabilities, the fixed costs of operating airlines include sky high priced airliners, employee salaries, fuel and ground equipment. The enterprise must sell enough tickets to meet the expenses.

Novel coronavirus broke out at the beginning of 2020 and had a serious impact on the global economic situation. Many industries were affected to varying degrees due to the long duration and wide range of the virus. Among them, the aviation industry has a great impact, which has been greatly impacted by the epidemic, but there is still a long way to go in the post epidemic era, so the industry faces many unknown challenges. As for the future trend of airlines, this paper focuses on

United Airlines, one of the American aviation giants, and compares it with other similar airlines in several aspects [2].

United Airlines (UAL), the full name of United Airlines, was founded in 1926 as the management company of Boeing Air Transportation Company, Pacific Air Transportation Company, National Air Transportation Company and Vanni Airlines, mainly delivering mail in the United States. UAL is a member of the Star Alliance Group, which includes Lufthansa AG, Nordic Airlines, Thai International Airlines, Canadian Airlines and Warburg Airlines. Through mutual participation in their frequent flyer programs, passengers can enjoy mileage accumulation, share the lounge of the terminal and simplify the registration procedures for United Star Alliance coated passenger planes.

In 2019, Boeing's 737 MAX airliner was banned due to safety problems. Airlines need to reschedule flights and reduce the scale of growth plans, thus weakening the competitiveness of American Airlines, United Airlines and Southwest Airlines. At the same time, because the spread of COVID-19 blocked people's travel plans, in the first quarter of 2020, UAL reported a net loss of $1.7 billion and an adjusted net loss of $639 million. It is the first quarterly loss of UAL since the first quarter of 2014. Indicators such as earnings per share, profit growth or comparison of unit income and cost on a year-on-year basis are crucial, but in the special case of epidemic, it is one-sided to use these indicators to judge the long-term development of the company. The aviation industry is an industry with high fixed costs, and cost reduction and efficiency enhancement are the lifeblood of the enterprise. Therefore, during the epidemic period, it is more possible to measure the sustainable development of the company by testing its cost control ability and the flexibility of the company to retain cash.

2. Accounting Analysis

UAL is an air transport company, and the vast majority of its revenue comes from passenger income and freight revenue. Therefore, the accounting analysis focuses on the income of UAL; Cost and Property, Plant, and Equipment (PP&E). This analysis is based on the annual financial statements of UAL 2019, 2020 and 2021. In order to make the research more effective, this paper also selects three similar companies with similar size to United Airlines: Southwest Airlines (LUV), Delta Airlines (DAL) and American Airlines (AAL), which also comply with the accounting standards of the United States.

2.1. Revenue

Based on the income statement in the annual financial statements released by UAL on Feb 18, 2022, it shows that the total revenue of UAL is 2463.4 billion dollars, and the operating profit is -102.2 billion dollars, which is moderate compared with the total revenue of 1535.5 billion dollars and the operating profit of 635.9 billion dollars in 2020. The total revenue of 2019 is 4325.9 billion dollars, and the operating profit of 4301 is significantly reduced compared with the revenue of 2020 and 2021, but moderate in 2021. The reason for the decrease in revenue is that the passenger volume of the aircraft in the event of the outbreak of COVID-19 is lower than before (see Figure 1), which leads to the decrease in the company's revenue.

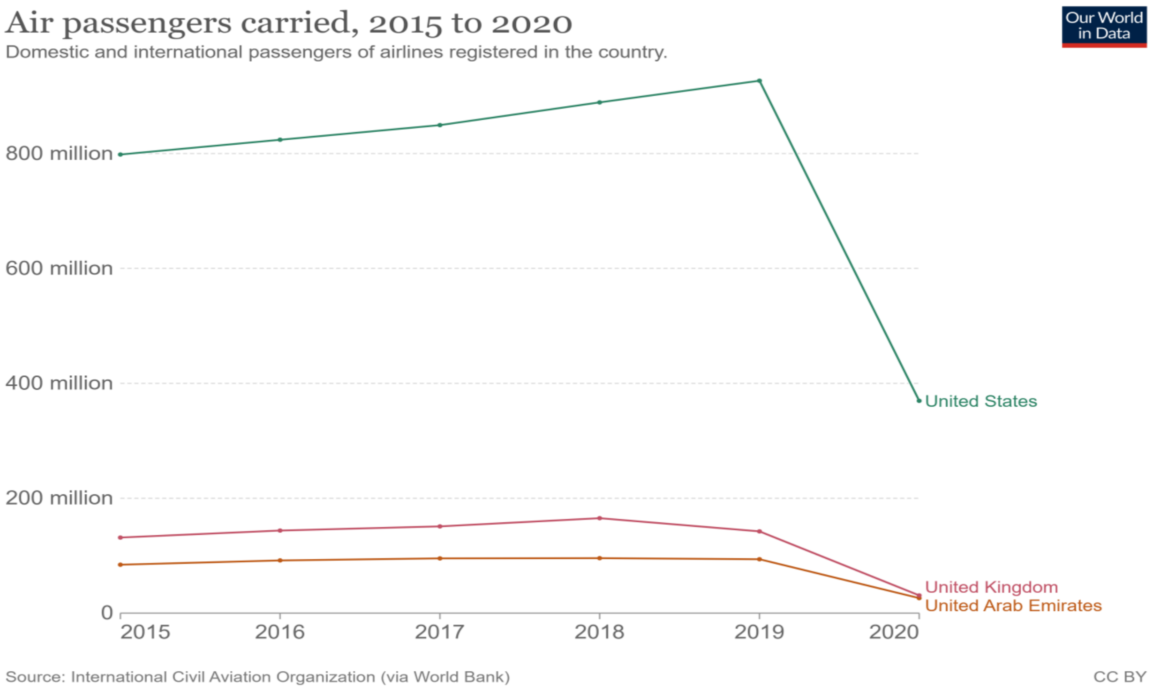

Figure 1: Air passengers carried [3].

The following is a breakdown of revenue into tourist transportation revenue and cargo transportation revenue for analysis. The tourist revenue in 2020 is $11805million, a decrease of $27.8 billion (70.2%) compared with 2019, mainly due to the global spread of COVID-19 and related shelter orders and travel restrictions. At the beginning of 2020, the company suspended the change fee. Since August 30, 2020, the company has cancelled the change fee of all standard economy class and premium class tickets traveling in 50 United States: states, Puerto Rico and the United States Virgin Islands. In addition, in December 2020, the company canceled the change fee of all international flights from the United States (which is part of the tourist transportation revenue). Destinations and expenses of Basic Economy and all other international travel tickets issued before March 31, 2021. Compared with 2019, the change fee revenue related to the COVID-19 in 2020 will decrease by $542 million by canceling the change fee and exemption [4]. Passenger income in 2021 will be USD 20197million, which is 71.1% higher than that in 2020.In general, the passenger income also conforms to the overall analysis, because the epidemic situation will decline rapidly and then be eased in 2021.

The freight transportation revenue of the three years are respectively 1179 million dollars (2019), 1648 million dollars (2020), 2349 million dollars (2021). The freight transportation revenue of the three years has been increasing, but the volume of freight transportation revenue is too small to change the fact that passenger transportation revenue decreases dramatically [5].

2.2. Expense

As Table 1 shown, salaries and related costs decreased $2.5 billion, or 21.1%, in 2020 as compared to 2019 [6]. Primarily due to a 22.4% reduction in employees resulting from voluntary separation programs and furloughs caused by COVID-19, $623 million lower profit sharing and other employee incentives due to the impact of COVID-19 on 2020 results and $180 million in tax credits provided by the Employee Retention Credit under the CARES Act in 2020 [4]. Salaries and related costs increased $44 million, or 0.5%, in 2021 as compared to 2020, primarily due to an increase in

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frontline employees' wages as a result of higher flight activity, partially offset by a $225 million increase in tax credits provided by the Employee Retention Credit under the CARES Act [4].

Table 1: Salaries and related costs of UAL in 2019, 2020 and 2021.

$ million	2021	2020	2019
Salaries and related costs	9566	9522	12071

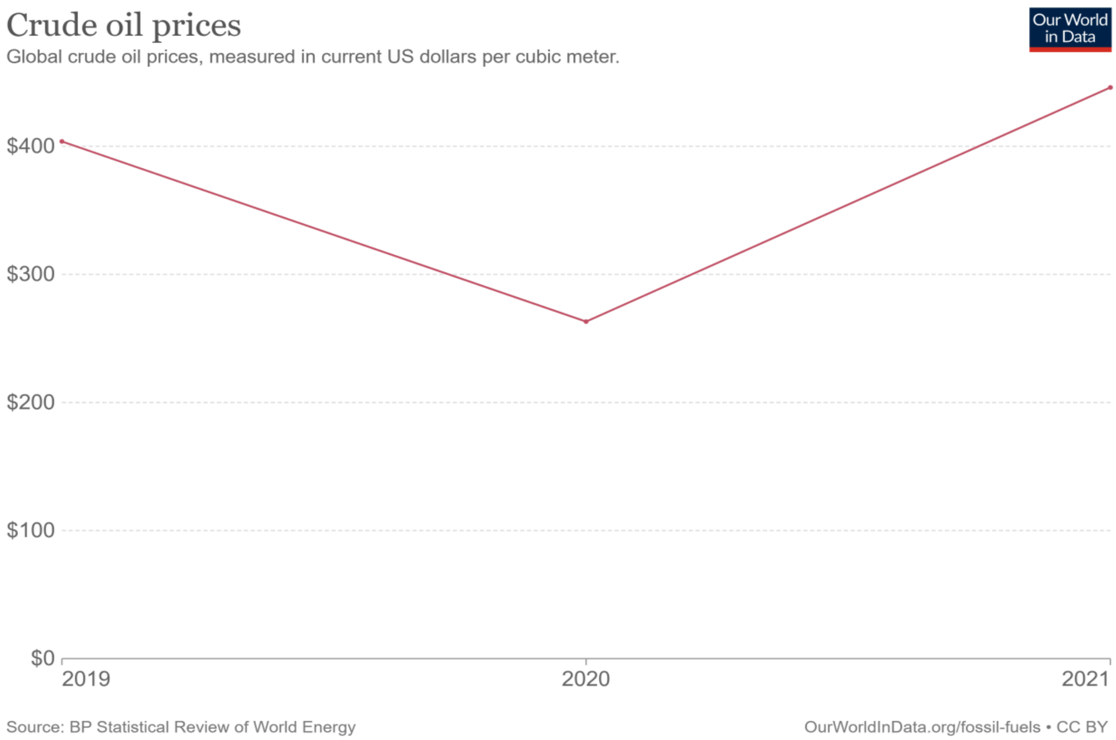

Figure 2: Crude oil prices from 2019 to 2021 [7].

Fuel expense is also one of the major factors that affect airline revenue (see Figure 2). Before the outbreak of the epidemic in 2019, the total fuel cost in one year was 8953 million dollars, so the average price per gallon was 2.09 million. In 2020, the total fuel cost was 3153 million dollars, so the average price per gallon was 1.57 million. In 2021, the data were 5755 million and 2.11 million respectively. Due to the government's macro-control of aviation oil price, the total fuel cost does not greatly affect the flight cost of UAL because the oil price is also in the low price range when the passenger rate is low.

2.3. PPE

The accumulated depreciation of UAL from 2019 to 2021 are -14537 million, -16429 million and -18489 million, respectively. Analysis of the total depreciation data shows that the accumulated depreciation of UAL has been increasing in the past three years, indicating that the asset value of UAL has been declining. Specific analysis of property depreciation shows that aircraft depreciation fluctuates slightly, but other property and equipment depreciation fluctuates greatly, so it can be considered that the increase in accumulated depreciation is caused by the huge fluctuation of other property and equipment rather than aircraft depreciation. This shows that the depreciation of the main assets of UAL is stable.

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3. Performance Evaluation

The competition in the aviation industry has always been fierce. The market share will determine whether you have more customer transportation revenue, which will directly affect the overall revenue of the company. However, as the stable market share suddenly began to fluctuate before the impact of the epidemic, UAL needed to re-occupy the market to face industrial competition. Because the epidemic hit 2022, the number of passengers could not recover from the large number before the epidemic, people's travel choices were less than before, because the aviation industry was difficult to recover to the ideal performance in 2022. The following ratios indicate that although the company is recovering, the speed is not ideal [8-10].

3.1. Profitability

Return on assets is an indicator used to measure how much net profit is generated per unit of assets, then it can be used to assess the profitability of a company. Gross Profit Margin is the percentage of gross profit and sales revenue (or operating revenue). Operating profit rate is the proportion of operating profit of total revenue. The higher the operating profit rate, the higher the operating profit provided by the enterprise's commodity sales, and the stronger the enterprise's profitability; On the contrary, the lower the ratio, the weaker the profitability of the enterprise [11]. As can be seen from Table 2, the profitability of UAL is at the lower median level in the three areas. According to the market value of UAL, its airline ranked fourth, and its profitability was consistent with that of ordinary scale statements, so the situation was normal and reasonable.

Table 2: Profitability ratios of UAL and its peers in 2021 (%).

	ROA	Gross profit ratio	Operating profit ratio
UAL	-2.880	26.74	2.01
LUV	2.680	25.4	5.53
AAL	-2.998	19.93	0.03
DAL	0.386	17.59	5.82
Average	-0.070	22.415	3.3475

Table 3 shows that all profit indicators are lower than 2019, indicating that the epidemic has a great impact on airlines. United Airlines cannot recover its profitability before the epidemic two years later, and both indicators are lower than the average, indicating that it will take several years for United Airlines to recover its earnings before the epidemic.

Table 3: Profitability ratios of UAL in recent three years (%).

	ROA	Gross profit margin of sales	Net operating interest rate
2021	-2.88	56.65	-7.97
2020	-11.87	51.88	-46.04
2019	36.72	76.43	6.96
Average	-0.07	61.65	-15.68

3.2. Liquidity

The ratio of current assets to current liabilities is known as the current ratio. It is used to assess a company's capacity to use its existing assets to pay off creditors before its short-term loans mature. In general, the better the ratio, the more liquid the company's assets are and the more stable its short-term solvency is. The quick ratio is the ratio of a company's current liabilities to its quick assets. Quick assets, which primarily consist of cash, short-term investments, notes receivable, accounts receivable, and other items, are the balance of current assets of an organization less inventories and prepaid costs [11]. It can be seen from the Table 4 and Table 5 that before the outbreak of the epidemic, the short-term solvency of UAL was greater than the average. After the outbreak of the epidemic, it has been lower than the average level. It is said that after the outbreak of the epidemic, the short-term solvency of UAL became weaker. However, the quick ratio of UAL in 2021 is higher than the average value, indicating that UAL has the ability to repay current liabilities at any time.

Table 4: Liquidity ratios of UAL and its peers (%).

	Current ratio	Quick ratio
UAL	1.1929	1.14
LUV	1.9681	1.50
AAL	0.9121	0.82
DAL	0.7603	0.71
Average	1.2084	1.0425

Table 5: Current ratios of UAL and its peers in recent three years (%).

	2021	2020	2019
UAL	1.1929	1.1631	0.5485
LUV	1.9681	2.0214	0.6673
AAL	0.9121	0.6696	0.4481
DAL	0.7603	1.0927	0.4083
Average	1.2084	1.2367	0.5181

3.3. Solvency

Debt to equity ratio is also called debt to shareholders' equity ratio. The proportion of total debt to total shareholders' equity. It is one of the indicators to measure the long-term solvency of an enterprise and reflect its capital composition and long-term financial situation [12]. The debt ratio of UAL is higher than the average level, but the airlines all have a similar debt structure and temporarily believe that the company has the ability to pay (see Table 6). In Table 7, the solvency of UAL has been declining in the past three years. Because United Airlines is facing the epidemic crisis, its debt has been increasing. Therefore, the leverage ratios have increased significantly in the time series.

Table 6: Solvency ratios of UAL and its peers (%).

	Debt-equity ratio
UAL	12.55
LUV	2.48
AAL	-10.05
DAL	17.64
Average	5.655

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Table 7: Solvency ratios of UAL in recent three years (%).

	Debt-equity ratio
2021	12.55
2020	8.99
2019	3.56
Average	8.37

3.4. Efficiency

The average total assets of a business during a specific time divided by net sales revenue is known as the total asset turnover ratio. The ratio between the asset investment scale and the sales level is measured by this indicator. The amount of inventory items that change hands within a predetermined time frame is known as the inventory turnover rate. It serves as a gauge for the rate of inventory turnover. The better the sales, the higher the turnover rate. The ratio of net revenue from credit sales to the typical level of accounts receivable over a specific period of time is known as the turnover rate of accounts receivable. It serves as a gauge for determining how quickly business accounts receivable are turned over and how well they are managed [13]. The total asset conversion rate of the airline has always been low (see Table 8), it will not have a big impact even if the ratio of UAL is very low and lower than the average value. Because the inventory conversion rate and the accounts receivable conversion rate of UAL are very high and higher than the average value, it shows that the turnover rate of UAL is still in a good state. In Table 9, the inventory turnover rate recovers fastest or even higher after the epidemic than before, and the other two turnover rates need some time or opportunity to recover to the pre epidemic level.

Table 8: Turnover ratios of UAL and its peers (%).

	Turnover rate of total assets	Inventory turnover rate	Receivable turnover ratio
UAL	0.35	12.39	15.24
LUV	0.44	6.69	11.97
AAL	0.43	5.41	19.23
DAL	0.33	13.90	12.40
Average	0.3875	9.5975	14.71

Table 9: Turnover ratios of UAL in recent three years (%).

	Turnover rate of total assets	Inventory turnover rate	Receivable turnover ratio
2021	0.35	12.39	15.24
2020	0.24	8.36	10.12
2019	0.80	11.74	29.25
Average	0.46	10.83	18.20

4. Strategy and Future Plans

Based on the financial ratios, it finds that the performance decreased greatly during the epidemic and rose again in 2021, but still decreased a lot compared with the pre-epidemic values. It shows that UAL is also developing in a good direction, but the process may not be rapid. Due to the end of the epidemic, the passenger flow of the aviation industry will increase again. How to maintain its market share and customer volume is a problem faced by United Airlines, because both of them

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directly affect most of the company's revenue. In order to maintain the position of UAL in the aviation industry, the following paragraphs focus on the strategy and future plans.

What UAL took in 2020 was to eliminate a lot of expense income and layoff measures to stabilize the situation. However, due to the warmer passenger flow, the company needs to further expand its personnel to speed up its market share. United Airlines can continue to strengthen its ESG strategy and pay more attention to several areas: product innovation; Fair access and pricing; Product quality and safety; Diversity, equity and inclusion; And business ethics.

Effective ESG operation strategy can not only enhance the confidence of investors, thus improving the market value, but also create brand differentiation, attract and retain top talents, and improve innovation and operation efficiency. In addition to attracting investors and maintaining its own goodwill, it is suggested that United Airlines can further develop its corporate culture to broaden its corporate reputation and improve employees' corporate confidence (which can improve employees' and customers' stickiness to the company's products). Finally, this approach can harvest goodwill and speed up market capture [14].

5. Conclusion

The future of United Airlines is very positive, but the arrival of a new market is accompanied by fierce competition, which leads to the importance of the company's strategy in the new year, because the company is in the recovery stage. If United Airlines makes good use of its existing conditions to seize the new market, it can make it faster to reach the pre epidemic turnover more likely to further. Therefore, compared with the present, the future of United Airlines has both risks and huge potential and prospects. Summary of research content: United Airlines' revenue has decreased rapidly under the influence of the epidemic, but is in a state of recovery, but the recovery time needs to be determined later. According to the breakdown of revenue, the freight revenue has been increasing, but it cannot change the decrease of passenger revenue, so the overall trend is to decrease first and then increase. The cost change is in line with the overall epidemic trend and does not impose a burden on the company. The analysis shows that asset depreciation is also in a stable state. Finally, the ratio analysis shows that the profitability and liquidity of United Airlines are changed according to the situation.

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