ORIGINAL RESEARCH PAPER

Management

AN EXPLORATORY ANALYSIS OF FINANCIAL DISTRESS IN AVIATION SECTOR –A STUDY OF GO FIRST AIRWAYS IN INDIA

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ABSTRACT

The study revolves around understanding the financial distress experienced by Go First Airways. This study aims to investigate the factors that contributed to their financial difficulties, the consequences for stakeholders, and potential avenues for recovery. By examining these specific cases, the study seeks to provide insights into the challenges faced by airlines in a competitive industry and identify the key factors that lead to financial distress. Such insights are crucial for developing effective risk management strategies and offering valuable lessons to stakeholders, policymakers, and industry participants in order to mitigate future financial crises. The study's findings will contribute to the body of knowledge on airline financial distress and aid in the development of strategies for the survival and sustainability of airlines in the face of similar challenges.

INTRODUCTION

The airline industry is the most visible part of the aviation industry, and it is responsible for transporting passengers and cargo around the world. There are many private companies operating in India along with public sector company Air India. Go First (formerly Go Air), an Indian ultra-low-cost carrier, was established by the Wadia Group in 2005. Despite initial success and expansion plans, the airline faced significant challenges leading to bankruptcy:

- Pratt & Whitney engine issues caused frequent disruptions and financial strain.
- The pandemic led to a sharp drop in passenger traffic and industry profits.
- Fluctuating crude oil prices increased operational costs.
- Competition from rivals like IndiGo and SpiceJet eroded profitability due to lower fares.

These factors combined to cause Go First's downfall, pushing the airline into bankruptcy marking a downturn from its promising beginnings as an ultra-low-cost carrier in 2005.

Scope Of Research

This study focuses specifically on Indian airlines, namely Go First Airways. The research uses a variety of financial analysis methods, such as ratio analysis and financial model, to gain a comprehensive understanding of the challenges faced by these airline.

Objectives Of Study

- To analyse the financial distress experienced by Go First Airways
- To examine financial distress through various financial models
- To suggest potential strategies for financial recovery and sustainable operations

Research Methodology

The study has included Go First Airlines .the research is based on the available secondary data which is the audited financial statements provided in the annual reports of these companies are the main source of financial data.The possibilities of financial distress in conducted through ratio analysis and various Bankruptcy models the data considered for this research is from 2018 to 2021 .The six different ratios which are used are debt-to-equity ratio, Cash Flow-to-Debt Ratio, current ratio, Gross profit margin, Total Debt to capitalization ratio, Net Debt to Run Rate EBITDA Ratio and four different models which are used are Altman Z-score Model, Springate S-score Model, Grover G-Score Model, Fuzzy Logic Model .

These models and ratios have been selected to assess the financial health of an airline and to determine the likelihood of bankruptcy. A brief overview of these six ratios and four models is as follows.

Ratio Analysis

Financial ratios are quantitative relationships between different financial items in a company's financial statements, such as the balance sheet, income statement, and cash flow statement. These ratios provide meaningful information when compared over time, against industry benchmarks, or in comparison to competitor

1) **Debt to Equity Ratio**
DE Ratio= Total Liabilities / Shareholder's Equity
2) **Current Ratio:**
Current Ratio= Current assets/ Current liabilities
3) **Gross Profit Margin**
Gross Profit Margin= Revenue - Cost of Goods Sold/ Revenue*100
4) **Total Debt to Capitalization Ratio**
Debt to Capital Ratio =Total Debt /Total Debt + Total Equity
5) **Net Debt to Run Rate EBITA Ratio**
NeAltman Z-score Model

Five ratios are used in the calculation of the Altman Z score depending on if the company is private or public the ratio might vary

- **Ratio Used for Private Companies**

A	Working capital / Total assets
B	Retained earnings / Total assets
C	Earnings before interest and tax payment /Total assets
D	The equity's market value / Total assets
E	Total sales / Total assets

Altman Z Score formula = $(0.717 \times A) + (0.847 \times B) + (3.107 \times C) + (0.420 \times D) + (0.998 \times E)$

Altman Z Score Interpretation

$Z \leq 1.8$	State of Distress(Red zone)
$1.8 < Z < 3.0$	Grey Area
$G \geq 3.0$	Not inDistress (Healthy)(Green Zone)

Springate S-score Model

This model was originally used by springate on 40 companies with an accuracy of 92.5%. Later on few other academic researchers conducted the same test on 50 companies (with average assets of 2.5 million) which showed an accuracy of 88% and another test on 24 companies (with average assets of 63.4 million) which showed an accuracy of 83%

A	Working Capital / Total Assets
B	EBIT / Total Assets
C	EBT / Current Liabilities
D	Sales / Total Assets

Springate Score = $1.03A + 3.07B + .66C + .4D$

Springate S-Score Interpretation

$S \leq 0.862$	State of Distress
S Score ≥ 0.862	Not inDistress (Healthy)

Grover G-Score Model

Grover Model is a model created by restoration or redesigns of the model of the Altman Z-Score. It takes X1 and X3 of the Altman model and then adds profitability ratios which are indicated by ROA.

X1	Working capital /Total assets
X2	Earnings before interest and taxes / total assets
ROA	Net income /Total assets

Grover G-Score Model= [1.650X1] + [3.404X2] – [0.016ROA] + [0.057]

Grover G-Score interpretation

G ≤ -0.02	State of Distress
-0.02<G<0.01	Grey Area
G ≥ 0.01	Not in Distress (healthy)

1.7.5 Fuzzy Logic Z Value Model

The model offers a practical approach to improve the financial performance of airlines by identifying and addressing their specific weaknesses. It can be a valuable tool for airlines to enhance their overall financial management and decision-making processes.

Fuzzy Logic (Z Value) Model = 2.637 – [0.879X1] + [0.466X2] + [0.268X3] – [0.28X4]

Fuzzy Logic (Z Value) Model Interpretation

Z ≤ 1.862	Healthy
1.862 ≤ Z ≤ 2.2	Low Risk
2.2 ≤ Z ≤ 2.515	Moderate Risk
2.515 ≤ Z ≤ 2.73	High Risk
Z ≥ 2.73	Insolvent

Data Analysis and Interpretation

Analysis of Fiancial Ratios and Altman Z-Score Model/ Springate S-Score Model/ Grover G-Score Model/ Fuzzy Logic (Z Value) Model

Go Airlines				
	2021	2020	2019	2018
Debt to Equity Ratio	-1.2008	-8.3402	-9.3865	-5.4728
current Ratio	0.1955	0.2722	0.4074	0.3543
Cash flow to Debt Ratio	0.0389	0.1391	0.2306	0.3121
Gross Profit Margin Ratio	5.1962	2.9886	5.7094	4.0660
Total Debt to Capitalization Ratio	5.9812	1.1362	1.1192	1.2236
Net Debt to Run Rate EBITDA Ratio	-2.1046	-6.5327	73.8332	8.8585

The above are all the ratios . these can be used along with financial statement to understand the position of the company along with other macro-economic factors to understand its position in comparison with the overall industry

Go Airlines				
Year	Z Score	S Score	G Score	Fuzzy Z value
2021	-0.4017	0.1716	0.6027	3.1205
2020	0.5486	0.0304	0.2522	2.9480
2019	0.4583	1.4584	1.5536	2.8817
2018	0.5065	1.5665	1.6428	2.9077

For Go Airlines we can see that Z Score ≤ 1.8 and Fuzzy Z ≥ 2.73 gave a clear indication of financial distress during all four years. But S Score ≥0.862 during 2018 and 2019 which give an indication that company is healthy and not in a distress situation but the S Score ≤ 0.862 was in 2020 and 2021 which give an indication that company is in financial distress situation. G Score was G ≥ 0.01 in 2018 and 2019 which give an indication that company is healthy and not in a distress situation and in 2020 and 2021 it was -0.02<G<0.01 which was an indication that company has moved to grey area moderate situation. Here we can say that Z Score and Fuzzy Z value gave early predictions

SUGGESTIONS AND CONCLUSION:

- Go Airlines 90% of fleet is made up of A320neos with Pratt & Whitney engines. The engine problems caused the company a huge loss as engines ran only 7,000 hours way shorter than the projected life of 12,000 hours. The company shouldn't have bought the engines from a single company they should have created a diverse portfolio which helps during these type of crisis situations
- The Pratt & Whitney engines problems was not only for Go airlines it affected several other companies like IndiGo(India's largest airline),Lufthansa (The German flag carrier),Volaris (Mexican low-cost airline), JetBlue Airways (US low-cost airline), Spirit Airlines (US low-cost airline), Wizz Air (Hungarian low-cost airline).But their response towards crisis situation was more quicker compared to Go Airlines. It estimated that around 12000 engines have been effected which was from Pratt & Whitney
- Go Airlines filing for bankruptcy is a good move as they have option to go for Debt Restructuring under insolvency and bankruptcy code 2016. Usually any company is tired to revived under a resolution plan primarily only if it fails they will go for liquidation and in airline business Debt restructuring is preferred as we see in the past Airline companies like Delta saved 9.3 Billion dollars, North West saved 4.2 Billion dollars and American airlines saved 8 Billion Dollars.

It can be concluded that, Distress in the aviation can result in a notable effect on the growth of the economy, It is always advisable to take precautionary measure to mitigate financial distress of a company for the sustainable development.

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