Financial Distress of Telecom Sector in India: A Study of Reliance Communication and Vodafone Idea

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Abstract:
This study focused mainly to understand in retrospect the development of financial distress of two companies and has not delved into the details of economic factors. This opens up scope for further research to identify the impact of exact factors that may have contributed towards the distress of the respective to the companies under study. This study focused for the periods 2018-2022 and considered two companies namely, Vodafone Idea and Reliance Communication. The lack of revenue generation, AGR dues, high debts, inability to clear debts, insufficiency of cash and losing of market share have all contributed to the same. The applied distress models have all predicted the that said companies are in a state of distress. Also, between the models not much variation can be seen in terms of the final prediction.

Keywords: Financial Distress, Vodafone Idea, Reliance Communication, Telecom Sector

Introduction:
Financial distress is a condition in which a company or individual cannot generate sufficient revenues or income, making it unable to meet or pay its financial obligations. It is a critical situation that arises when a company's financial health deteriorates to the point where it is unable to meet its financial obligations. Financial distress can result from a variety of factors, including economic downturns, poor financial management, excessive debt, intense competition, or disruptive industry trends. This is generally due to high fixed costs, a large degree of illiquid assets, or revenues sensitive to economic downturns. When a company experiences financial distress, it faces a range of difficulties, such as a lack of liquidity, declining revenues, increasing costs, and mounting debt burdens. These challenges often lead to a downward spiral that can negatively impact the company's operations, relationships with stakeholders, and overall market value. In severe cases, financial distress may result in bankruptcy or insolvency, leading to the potential dissolution of the company.

The implications of financial distress extend beyond the company itself to suppliers, employees, shareholders, and creditors can all be significantly affected by a company's financial struggles. It is a challenging and complex state that can have significant implications for the viability and sustainability of businesses across various industries.

The telecom industry in India has witnessed significant growth and transformation over the years. It has become one of the fastest-growing sectors in the country, driven by increasing mobile penetration,
affordable data plans, and government initiatives to promote digitalization. But over the years it has faced financial distress and challenges due to various factors which have led to the need for this study –

- Telecom operators in India have taken on substantial debt to acquire spectrum licenses and expand their networks. The high debt burden, coupled with the intense competition, has strained the financial health of many companies.
- Acquiring spectrum licenses in India is a significant expense for telecom operators. The costs associated with spectrum auctions, license fees, and renewals have added to the financial burden of telecom companies.
- Regulatory issues and legal disputes have impacted the financial stability of telecom operators. Disputes related to spectrum usage charges, adjusted gross revenue (AGR) dues, and penalties have resulted in financial liabilities for the companies.
- To alleviate financial stress, the telecom industry in India has witnessed significant consolidation through mergers and acquisitions. For example, the merger of Vodafone India and Idea Cellular and the acquisition of several smaller operators by larger players. These activities aimed to improve operational efficiencies and reduce costs.
- Adjusted Gross Revenue (AGR) is a significant source of financial distress for telecom operators. In 2019, the Supreme Court of India upheld the definition of AGR, leading to substantial dues for telecom companies. The payment of these dues added to the financial strain on the industry.
- The intense competition and reduced tariffs have resulted in declining revenue and profitability for many telecom companies. Profit margins have been squeezed, impacting their ability to invest in network expansion and infrastructure development.
- The Indian government has taken steps to provide relief to the telecom industry. These include a four-year moratorium on spectrum payment dues, allowing deferred payment options, and rationalizing the spectrum usage charges.

OBJECTIVES OF THE STUDY
1. To evaluate the financial distress level of selected Indian telecom companies through various prediction models
2. To evaluate the status financial health of Vodafone Idea and Reliance Communication from the values obtained

SCOPE OF THE STUDY
This study focuses specifically on Reliance Communications Limited and Vodafone Idea Limited, to understand the financial distress situation over the years. The study is retrospective in nature and would mainly focus on the financial data of the past 5 years (FY18 to FY 22) as released by the companies and other economic, industrial and governmental regulations that have an effect on the operations of the company.

RESEARCH METHODOLOGY
As the study is retrospective in nature, the findings would be derived based on observation and analysing of information based on previous studies and distress models as applicable. The analysis tool will be MS Excel with the application of respective formulae of the distress models
DATA
For the purpose of this study, the data used would be secondary data comprising of -
- Financial Reports of the companies from the Annual Reports
- Publications on macro-economic factors affecting the telecom sector
The data for the past 5 years, from 2018 to 2022, has been taken into consideration for two companies, namely, Vodafone Idea Limited and Reliance Communication Limited from their annual reports.

ANALYSIS TECHNIQUES
For the purpose of analysis, the study would apply certain financial ratios and financial distress prediction models.
The financial ratios calculated include:
1. Debt Equity Ratio
2. Current Ratio
3. Cash Flow to Debt Ratio
4. Gross Profit Margin Ratio
5. Total Debt to Capitalization Ratio
6. Net Debt to EBITDA Ratio

The financial distress models include:
1. Altman Z-Score Model
2. Springate S-Score Model
3. Grover G-Score Model
4. Zmijewski X-Score Model
These ratios and models have been selected to assess the financial health of the select telecom companies and to determine the extent of financial distress which could lead to the likelihood of bankruptcy.

Literature Review:
Supitriyani, Astuti, Khairul Azwar (2022) in their study ‘Implementation of Springate, Altman, Grover and Zmijewski Models in Measuring Financial Distress’ examine the financial distress of transportation companies listed on the Indonesia Stock Exchange. It highlights the importance of good company performance and strategic planning to stay afloat. The study uses four models (Springate, Altman, Grover, and Zmijewski) to measure the level of financial distress. The Altman model is found to be the most accurate in predicting bankruptcy, with an 85.75% accuracy rate. The study suggests that managers and investors should take timely actions to improve company performance and avoid bankruptcy. However, there are limitations in the study, and future research could explore other bankruptcy models and external factors affecting financial distress.

Nandini Arora, Dr Chirag Jiyani (2022) in, ‘An Analysis of Efficacy of Financial Distress Prediction Springate and Grover Model’ present a study of the efficacy of the Springate and Grover model for predicting financial distress. The model is based on a set of financial ratios that are known to be predictive of financial distress. The study uses a sample 3 bankrupt NBFC’s over the period 2014-15 to 2018-19. The results show that the Springate and Grover model is able to predict financial distress with a high degree of accuracy.
Overall, the study provides valuable insights into the efficacy of the Springate and Grover model for predicting financial distress. The model is shown to be accurate and it can be used to identify firms that are at risk of financial distress. However, the study has some limitations and further research is needed to validate the model for other countries and different macroeconomic conditions.

Ajay Kumar Patel, Shikha Jalota, et al. (2022) in their study ‘Detection of Financial Distress in the Indian Automobile Industry’ have examined the use of financial ratios and financial distress prediction models to predict financial distress in the Indian automobile industry. The authors used a sample of 10 largest automobile companies, in terms of market capitalization, listed on the Bombay Stock Exchange over the period 2015-16 to 2019-20.

Analysis and Interpretation:
Summary of Financial Ratios of Vodafone Idea

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt To Equity</td>
<td>-3.886</td>
<td>-6.245</td>
<td>22.691</td>
<td>2.395</td>
<td>2.672</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>0.350</td>
<td>0.287</td>
<td>0.229</td>
<td>0.359</td>
<td>0.569</td>
</tr>
<tr>
<td>Cash Flow to Debt</td>
<td>0.071</td>
<td>0.064</td>
<td>0.034</td>
<td>0.034</td>
<td>0.075</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>0.545</td>
<td>0.537</td>
<td>0.510</td>
<td>0.318</td>
<td>0.415</td>
</tr>
<tr>
<td>Total Debt to Capitalization Ratio</td>
<td>1.346</td>
<td>1.191</td>
<td>0.958</td>
<td>0.705</td>
<td>0.728</td>
</tr>
<tr>
<td>Net Debt to EBITDA Ratio</td>
<td>15.282</td>
<td>14.098</td>
<td>12.986</td>
<td>30.577</td>
<td>11.537</td>
</tr>
</tbody>
</table>

From the financial ratios, one can tell that the company, Vodafone Idea Limited is not in a good financial state.

- It has high debt equity ratios, across all the 5 years of study which implies a high debt burden. In 2020, the figure has risen to a great extent which is a noticeable matter to concern. For the subsequent years the impact of negative equity value can also be noticed.
- The current ratios are below 1 and signifies the lack of solvency of the company in being able to cover short term liabilities
- The low cash flow to debt ratio indicates the insufficiency cash flows to contribute towards the payments of debts raised
- Although a rise in the gross profit margins (values over 50%) can be seen from the years 2020, there is much progress to achieve as this is a service industry.
- The debt to capitalization has gradually risen over the years with the implication of the company being highly levered.
- The Net Debt to EBITDA shows that the time to pay back the existing debt is also increasing, signifying that the company is current unable to clear its debt at the required rate.

Summary of scores of Financial Distress Models of Vodafone Idea

<table>
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<tr>
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<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z-Score</td>
<td>-2.286</td>
<td>-1.609</td>
<td>-0.950</td>
<td>1.787</td>
<td>2.766</td>
</tr>
<tr>
<td>S-Score</td>
<td>-0.885</td>
<td>-0.986</td>
<td>-1.000</td>
<td>-0.556</td>
<td>-0.521</td>
</tr>
<tr>
<td>G-Score</td>
<td>-0.774</td>
<td>-0.726</td>
<td>-0.817</td>
<td>-0.463</td>
<td>-0.303</td>
</tr>
<tr>
<td>X-score</td>
<td>2.644</td>
<td>1.887</td>
<td>0.666</td>
<td>-0.450</td>
<td>-0.382</td>
</tr>
</tbody>
</table>
The calculated values of the four distress models have shown clear signs of financial distress of the company.

- For the year 2018, according to the Altman Z-Score interpretation it can be said that the company is not in distress while it is to be noted that the value is on the borderline of distress. Subsequently in 2019, it fell down to the gray area and from the year 2020 onwards it is under distress as the Z-Score values are below 1.1 \((Z<1.1)\)

- The Springate S-Score model showed distress for all 5 years from 2018 to 2022 with S-Score values below 0.862 \((S<0.862)\)

- The Grover G-Score showed distress for all 5 years from 2018 to 2022 with G-Score values falling under the benchmark value of -0.02 \((G<-0.02)\)

- The Zmijewski X-Score model showed distress from the year 2020 with the X-Score value greater than 0 \((X>0)\)

From the above calculated scores of from the four models, similarity in trends of prediction can be seen between the Altman Z-Score model and the Zmijewski X-Score model and likewise between the Springate S-Score model and Grover G-Score model.

### Summary of Financial Ratios of Reliance Communication

<table>
<thead>
<tr>
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<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt To Equity</td>
<td>-1.059</td>
<td>-1.204</td>
<td>-1.371</td>
<td>3.615</td>
<td>4.430</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>0.399</td>
<td>0.426</td>
<td>0.451</td>
<td>0.740</td>
<td>0.949</td>
</tr>
<tr>
<td>Cash Flow to Debt Ratio</td>
<td>0.001</td>
<td>-0.0002</td>
<td>0.0014</td>
<td>0.006</td>
<td>-0.0376</td>
</tr>
<tr>
<td>Gross Profit Margin</td>
<td>0.287</td>
<td>0.141</td>
<td>0.127</td>
<td>0.326</td>
<td>0.269</td>
</tr>
<tr>
<td>Total Debt to Capitalization Ratio</td>
<td>18.006</td>
<td>5.902</td>
<td>3.695</td>
<td>0.783</td>
<td>0.816</td>
</tr>
</tbody>
</table>

From the financial ratios, it can be said that the company’s financial status is not good and raises of concern for sustenance.

- The debt equity ratios, are high across all the 5 years of study which implies a high debt burden, the impact of negative equity value can be noticed from the years 2020 which shows that the company has raised more funds through debt
- The current ratios are below 1. The trend of the current ratio shows a gradual decline from 2018 to 2022, and signifies the solvency of the company in terms of being able to cover short term liabilities has been decreasing over the years
- The extremely low cash flow to debt ratio indicates the lack cash flows to contribute to cover the debt burden of the company
- Fluctuations in the gross profit margin can be seen for all the 5 years. The values have ranged between 12.7% to 32.6% which is extremely low for the service industry.
- The debt to capitalization has risen exorbitantly over the years with the implication of the company being highly levered
- The Net Debt to EBITDA has moved towards a negative value, as an impact of the negative EBITDA and shows clear signs of the company inability to clear its debts for a very long time.
Summary of scores of Financial Distress Models of Reliance Communication

<table>
<thead>
<tr>
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<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z-Score</td>
<td>-10.225</td>
<td>-8.889</td>
<td>-7.931</td>
<td>1.369</td>
<td>2.253</td>
</tr>
<tr>
<td>S-Score</td>
<td>-1.240</td>
<td>-1.103</td>
<td>-1.220</td>
<td>-0.105</td>
<td>-0.014</td>
</tr>
<tr>
<td>G-Score</td>
<td>-1.921</td>
<td>-1.705</td>
<td>-1.620</td>
<td>-0.304</td>
<td>0.005</td>
</tr>
<tr>
<td>X-score</td>
<td>6.790</td>
<td>6.039</td>
<td>5.512</td>
<td>0.082</td>
<td>0.242</td>
</tr>
</tbody>
</table>

The calculated values of the four distress models have shown clear signs of financial distress of the company.

- For the year 2018 and 2019, according to the Altman Z-Score interpretation it can be drawn that the company is in the gray area and subsequently in the years to follow from 2020, the Z-Score values have fallen greatly and shows clear distress with Z-Score in negative values all below the required benchmark ($Z<1.1$).
- The Springate S-Score model showed distress for all 5 years from 2018 to 2022 with S-Score values being negative, which are below the said value of 0.862 ($S<0.862$).
- The Grover G-Score value for 2018 is on the borderline of the benchmark value and shows clear distress for the following four years from 2019 to 2022 with G-Score values lower than the benchmark value of -0.02 ($G<-0.02$).
- The Zmijewski X-Score model showed distress for all five years from 2018 to 2022 with the X-Score value greater than 0 ($X>0$).

From the values of the calculated based on the mentioned 4 models, clear signs of distress can be seen for all of the years. Only Altman Z-Score in 2018 and 2019 and Grover G-Score in 2019 have values on the borderline of the distress benchmark.

Suggestions

Suggestions to Vodafone
1. Financial restructuring and capital infusion in order to reduce the high debts that are already existing in the company.
2. Strategic partnerships by forming alliances with other telecom operators, technology companies, or industry players to share resources, technology, and expertise which can lead to mutual benefits and cost saving.
3. Engaging with regulatory bodies and policymakers to advocate for favourable policies, including spectrum pricing, license fees, AGR dues and regulatory reforms that support the industry's sustainability.

Suggestions to Reliance Communication:
Suggestions to Reliance Communication do not include much as the company has filed for bankruptcy in the year 2019 and revamped its operation strategies. The huge debt amounts are a major challenge for the company’s survival. Having already entered into agreements with Reliance Jio for the sharing of Fiber Infrastructure in 2014, it chances for a take-over are high and the same is being anticipated in the markets.

Conclusion:
In accordance to the predictions, the telecom industry continues to grow and has great potential for the future. The demand for the services provided also continue to rise, whereas at the same time, the survival
of the existing telecom companies in the Indian markets has been ambiguous following the entry of Reliance Jio and its competitive pricing strategy.

In conclusion, the calculation of the distress models for other companies can provide a better understanding of the financial distress of the industry at large. Currently, the question of whether the Indian telecom industry is inching towards duopoly is a major question with Bharti Airtel and Reliance Jio leading the markets. Further analysis of both companies could give a better picture on the state of distress in the telecom industry.

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