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Predicting Financial Health Using the Altman Z-Score: A Case Study of Sri Lanka Telecom PLC

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Abstract

The telecom industry is a vital sector that significantly contributes to economic growth by facilitating communication, connectivity, and technological development. Early prediction of bankruptcy provides stakeholders with warning signals and enables the implementation of corrective strategies before financial failure becomes irreversible. As the telecom industry is classified under the service sector, the modified Altman Z-Score model for service or non-manufacturing firms was applied to assess the financial health of Sri Lanka Telecom PLC. The modified Altman Z-Score was calculated using four key financial ratios: Working Capital to Total Assets, Retained Earnings to Total Assets, Earnings before Interest and Taxes to Total Assets, and Book Value of Equity to Total Liabilities. Secondary data were collected from the company's annual reports covering the period 2019–2024. The Altman Z-Score analysis of Sri Lanka Telecom PLC from 2019 to 2024 reveals a concerning financial trajectory. The company predominantly remained in the Grey Zone, briefly reached the Safe Zone in 2020, and alarmingly fell into the Distress Zone in 2023. This downward trend indicates heightened financial risk and underscores the need for urgent, sustained measures to ensure long-term solvency. To mitigate these challenges, Sri Lanka Telecom PLC should focus on enhancing operational efficiency, strengthening liquidity, restructuring short-term debt, and optimizing its capital structure. Furthermore, management must implement rigorous cost-control measures and actively pursue revenue diversification to safeguard against future financial shocks and restore investor confidence.

Keyword: Bankruptcy, Altman Z-score, earnings before interest tax, total assets, retained

1.1 Background of the Study

The telecommunications industry plays a critical role in economic development by facilitating communication, connecting markets, and enabling the exchange of information. Over the past few decades, the sector has experienced rapid technological innovation, intense competition, and substantial capital investments. In many emerging economies, telecommunications companies rank among the largest listed corporations, contributing significantly to government revenues through taxes and license fees (Röller & Waverman, 2001). However, despite the

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sector's strategic importance, several telecom operators worldwide have faced financial distress, and in some cases, bankruptcy, due to rising operational costs, declining average revenue per user (ARPU), high debt burdens, and regulatory pressures (Sorout & Singh, 2025). Corporate bankruptcy, defined as the legal status of a company unable to meet its financial obligations, is not merely a legal event but also an economic signal that the firm's value has deteriorated. Bankruptcy affects not only shareholders but also creditors, employees, suppliers, and the broader economy (Novitasari & Rahadi, 2023; Samarakoon & Hasan, 2003). Consequently, academics and practitioners have devoted considerable attention to bankruptcy prediction models, employing traditional statistical techniques such as Altman's Z-Score as well as modern machine learning approaches (Altman et al., 2017). In the context of listed telecom companies, the need for bankruptcy prediction is particularly critical due to the sector's capital-intensive nature. Telecom operators require substantial investment in infrastructure, including spectrum licenses, base stations, fiber optic networks, and technology upgrades (Fifriani & Santosa, 2019). These high fixed costs often lead to significant leverage, exposing firms to financial risk if revenues fall below expectations. The present study applies the established Altman Z-Score bankruptcy prediction model to evaluate the financial health of Sri Lanka Telecom PLC, aiming to identify early warning signals of financial distress. The primary research objective is to assess the company's overall financial health using the modified Altman Z-Score model tailored for service-sector firms. The telecommunications sector in Sri Lanka has historically been one of the most dynamic industries, providing vital infrastructure for economic development and social connectivity. Recent financial indicators suggest a deterioration in the sector's financial health. From 2020 to 2024, the current ratio of Telecom PLC (Group) was 1.00, 1.04, 0.76, 0.62, and 0.82, respectively (Annual Report, 2024), reflecting a decline in liquidity, particularly after 2021, when the ratio fell below 1.00. This indicates that the company's current liabilities exceeded its current assets, creating potential challenges in meeting short-term obligations without additional financing. Another warning signal has been the persistent decline in net profit margins despite subscriber growth. The Return on Assets (ROA) of Telecom PLC (Group) from 2020 to 2024 shows a fluctuating and largely declining trend, recorded at 3.85%, 5.53%, 1.98%, –1.61%, and 1.30%, respectively (Annual Report, 2024). The negative ROA in 2023 highlights potential financial distress and underscores the importance of predicting bankruptcy using models such as the modified Altman Z-Score. Timely prediction of financial vulnerability is essential for maintaining

investor confidence, safeguarding the company's economic stability, and ensuring uninterrupted telecommunication services.

This study employs a case study approach to examine the financial position of Sri Lanka Telecom PLC, evaluate the applicability of bankruptcy prediction models, and provide recommendations to enhance financial resilience within the sector.

1.2 Review of Literature

Bankruptcy prediction has been an extensively researched area in corporate finance, with scholars proposing several analytical methods to forecast financial distress (Gerantoni et al., 2009). In the context of the telecommunications industry, several studies have applied these analytical methods to assess financial health. Bhandari and Iyer (2013) used Altman's Z-Score to analyze financial distress among telecom operators and found that declining ARPU and high capital expenditures were significant contributors to financial risk. Similarly, studies in emerging economies emphasize the importance of adjusting models to local market conditions, as sector-specific risks such as regulatory pressure, spectrum fees, and currency depreciation can significantly influence results (Novitasari, & Rahadi, 2023).

A consistent decline in ROA signals diminishing profitability and inefficient asset utilization, which are critical precursors to financial distress. Empirical studies have demonstrated that firms exhibiting a significant decrease in ROA are more susceptible to default. Rahman and Masud (2021) found that firms at risk of distress often report negative cash flows from operations and a substantial decline in ROA in the year preceding default. Additionally, research by Shetty (2022) indicated that financial ratios like ROA and liquidity measures are instrumental in predicting bankruptcy, with models achieving high accuracy rates. Research by Niresh and Pratheepan (2015) in the trading sector and Anandasayanan and Subramaniam (2017) in the manufacturing sector showed that firms with declining profitability and low liquidity often fall into the financial distress zone according to the Altman Z-Score model.

Recent empirical studies in India emphasize the relevance of the Altman Z-Score model in predicting financial distress across various sectors. Sorout and Singh (2025) applied the modified Altman Z-Score to Bharti Airtel Limited and demonstrated that declining profitability and liquidity ratios can effectively indicate potential bankruptcy risk. Applying the modified Altman Z-Score for non-manufacturing sectors, therefore, provides a robust analytical

framework to evaluate the likelihood of bankruptcy in service-oriented firms like Telecom PLC. This approach integrates profitability, liquidity, and solvency measures, allowing stakeholders to detect early signs of distress and implement corrective measures to strengthen financial stability (Sorout & Singh, 2025). Similarly, a study on Indian power companies highlighted that firms with weaker financial positions, as measured by Z-Score, are more susceptible to financial. In the pharmaceutical sector, the Altman Z-Score was shown to assist stakeholders in making informed investment and managerial decisions by monitoring corporate financial health. Further, Grice& Ingram (2021) compared multiple bankruptcy prediction models and found that the traditional Altman Z-Score remains highly effective in early detection of financial distress, while other models require refinement for emerging market conditions. Although bankruptcy prediction has been widely researched in developed economies, there is limited empirical evidence focusing on the Sri Lankan context. Most of the existing studies in Sri Lanka have concentrated on general financial performance evaluations, profitability analyses, or sectorial efficiency studies rather than comprehensive bankruptcy prediction. While studies in other countries have demonstrated the usefulness of bankruptcy prediction models, there is a lack of localized empirical validation in Sri Lanka. This research seeks to fill this gap by conducting an in-depth case study of Sri Lanka Telecom PLC.

1.3 Methodology

1.3.1 Data Collection

This study relies on secondary data obtained from Sri Lanka Telecom PLC's financial statements. Relevant financial information will be collected from sources such as Telecom PLC's annual reports, official company websites, and audited financial statements covering the period from 2019 to 2024.

1.3.2 Altman's Z-Score Model

Altman (1983) estimated the following four variable Z' Score model for non-manufacturing/service companies. Modified Z score model for non-manufacturing/service companies noted below.

$$\mathbf{Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4}$$

Where, X_1 = Working capital/Total assets X_2 = Retained Earnings/Total assets

X_3 = Earnings before interest and taxes/Total assets X**4** = Book value of equity/Book value of total liabilities, Z" = Overall Index.

Ranges/Zone of Discriminations According to Altman (1983), the threshold values for the Z score measurement of nonmanufacturing/service companies are given as follows:

Table 1: **Threshold values for the Z score for Non-Manufacturing/ Service companies**

X Value	Zone	Interpretation
Z" > 2.6	Safe Zone	The lower the Z" value, the Higher the chances of bankruptcy.
1.1< Z" < 2.6	Grey Zone	
Z" < 1.1	Distress Zone	

1.4 Results and Discussion

1.4.1 Trend analysis of Data

Trend analysis involves examining historical data over a period to identify patterns, tendencies, and changes. It is a crucial tool for decision-making and strategic planning in organizations. This, in turn, provides a clearer understanding of the firm's financial health and potential risk of distress, which is the primary purpose of the data presentation.

1.4.2 Total Assets: Total assets of a company represent the overall value of everything it owns, including current assets (like cash, inventory, receivables) and non-current assets (like property, equipment, and investments), as recorded on the balance sheet.

The following table 1 shows the total assets of Telecom PLC in Million Rupees for the period 2019 to 2024, while Figure illustrates the trend over these years.

Table 02: Total assets of Sri Lanka Telecom PLC

Year	Total assets
2024	180,895
2023	189,489
2022	186,026
2021	158,204
2020	146,189
1999	151,654

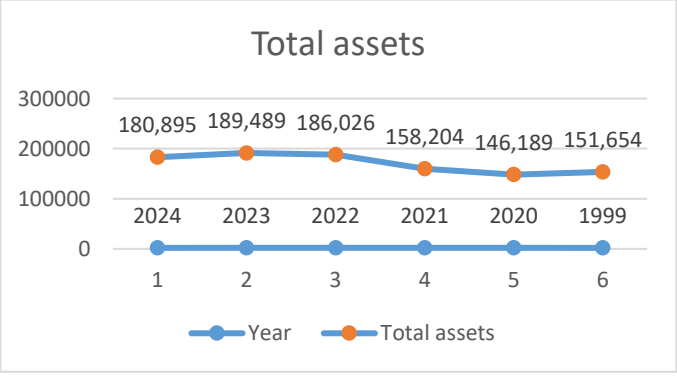

Figure 01: Trend of total assets of Sri Lanka Telecom PLC

From 1999 to 2024, the total assets of the company show an overall growth of about 19%, rising from LKR 151,654 Mn to LKR 180,895 Mn, but the trend is uneven. After a slight

decline by 2020, the company experienced a strong expansion between 2021 and 2022, likely due to major capital investments or network upgrades, reaching a peak of LKR 189,489 Mn in 2023. However, in 2024, total assets fell by 4.5%, suggesting possible asset disposals, revaluation losses, or financial restructuring. This recent decline may be an early warning signal of financial stress if not accompanied by a strategic plan for long-term growth.

1.4.3 Equity: Equity is the ownership interest in a company, representing the residual value of assets after all liabilities are deducted. It is often referred to as shareholders' funds or owners' capital. The table below presents the Equity of Telecom PLC (in million rupees) for the years 2019 to 2024, and the corresponding figure depicts the trend across this period.

Table 03: Equity of Sri Lanka Telecom PLC

Year	Equity
2024	70,242
2023	68,140
2022	69,546
2021	65,672
2020	62,443
1999	60,173

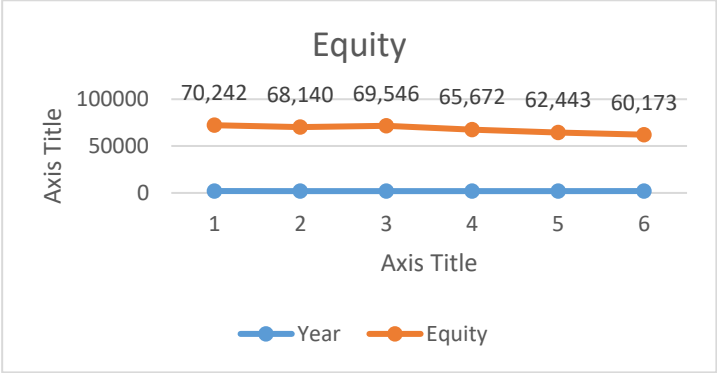

Figure 02: Trend of Equity of Sri Lanka Telecom PLC

Between 1999 and 2024, the company's equity exhibited a steady upward trend, rising from LKR 60,173 million in 1999 to LKR 70,242 million in 2024. Growth was gradual, with equity increasing to LKR 62,443 million in 2020 and further to LKR 65,672 million in 2021. Minor fluctuations occurred in 2022 and 2023, with equity recorded at LKR 69,546 million and LKR 68,140 million, respectively, likely due to adjustments in retained earnings or changes in share capital. By 2024, equity reached its highest level, reflecting accumulated profits and a relatively stable capital structure, indicating financial strength and long-term solvency despite short-term variations in liabilities.

1.4.4 Earnings before Interest Tax: Earnings Before Interest and Taxes (EBIT) is a financial metric that measures a company's operating profit by capturing earnings generated from core business activities before deducting interest expenses and income taxes. Table X presents the EBIT

figures of Telecom PLC, expressed in million rupees, for the period 2019–2024, while the accompanying figure illustrates the trend observed over these years.

Table 04: EBIT of Sri Lanka Telecom PLC

Year	(EBIT) /
2024	3,020
2023	-1,611
2022	12,648
2021	5,085
2020	4,539
1999	4,754

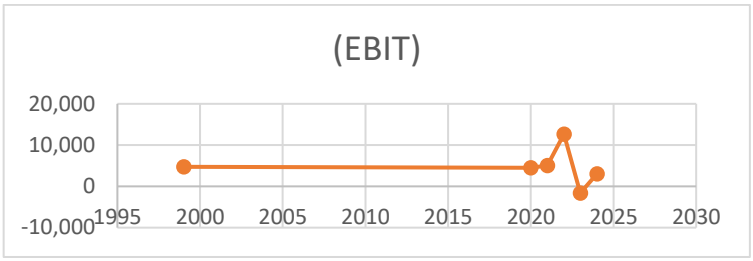

Figure 03: Trend of EBIT of Sri Lanka Telecom PLC

Examining the company's EBIT from 1999 to 2024 reveals considerable fluctuations in operational performance. Starting at LKR 4,754 million in 1999, EBIT remained relatively stable between LKR 4,500 and 5,000 million during 2020–2021. In 2022, it surged to LKR 12,648 million, reflecting strong revenue growth or improved operational efficiency. This positive trend was abruptly reversed in 2023, when EBIT fell to LKR –1,611 million, indicating significant operational losses. By 2024, EBIT recovered to LKR 3,020 million, demonstrating partial stabilization. The pronounced volatility, particularly the negative EBIT in 2023, highlights potential operational and financial risks for the company.

1.4.5 Working Capital: Working capital is the difference between a company's current assets and current liabilities. It measures a firm's short-term liquidity and ability to meet its day-to-day operational obligations. The table below provides Telecom's working capital assets from 2019 to 2024, and Figure visually depicts the trend observed during this period.

Table 05: Working Capital of Sri Lanka Telecom PLC

Year	Working capital
2024	-6293
2023	-23624
2022	-12828
2021	-1811
2020	232
1999	-6085

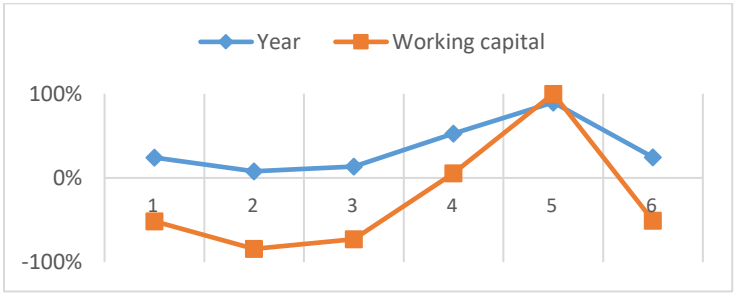

Figure 04: Trend of Working Capital of Sri Lanka Telecom PLC

The working capital data indicate a generally negative trend over the years, highlighting liquidity challenges. In 1999, working capital was negative (–6,085 million LKR), suggesting that current liabilities exceeded current assets. A brief improvement occurred in 2020, when working capital turned positive (232 million LKR), indicating short-term financial stability. However, from 2021 onward, working capital remained negative, deteriorating sharply in 2022 (–12,828 million LKR) and reaching its lowest point in 2023 (–23,624 million LKR), implying significant strain on short-term liquidity and a likely increased reliance on short-term financing. In 2024, negative working capital improved to –6,293 million LKR, reflecting partial recovery, but still underscoring the need for better management of current assets and liabilities.

1.4.6 Total Liability

Total liabilities represent the overall financial obligations a company owes to external parties. It reflects the company's total debt and commitments that must be settled in the future. Table X presents Telecom PLC's total liabilities for the period 2019–2024, while the accompanying figure illustrates the trend, offering a clear view of changes in the company's financial obligations over these years.

Table 06: Total Liability of Sri Lanka Telecom PLC

Year	Total Liability
2024	110,653
2023	121,349
2022	116,480
2021	92,532
2020	83,746
1999	91,481

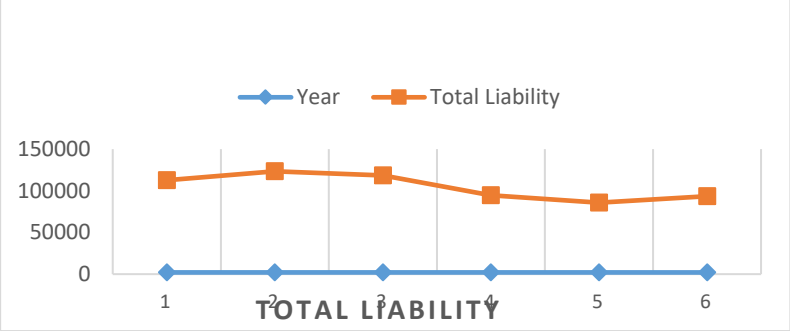

Figure 05: Total Liability of Sri Lanka Telecom PLC

1.5 Results and Discussion of Altman Z score

The Modified Altman Z-Score for non-manufacturing companies is calculated using four financial ratios: Working Capital to Total Assets, Retained Earnings (Revenue Reserves) to Total Assets, Earnings before Interest and Tax (EBIT) to Total Assets, and Book Value of Equity to Total Liabilities.

1.5.1 Ratio for Modified Altman Z-Score for the year 2019

Each of these ratios is computed separately for the relevant period, and the overall Z-Score is then determined as a weighted sum of the ratios, providing a comprehensive measure of the

company's financial health and bankruptcy risk, as illustrated in the table below for the year 2019.

Table 07: **Calculated Ratio for Modified Altman Z-Score for the year 2019**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	(6,085)/151,654	-0.0489
X2	Retained Earnings (Revenue Reserves) / Total Assets	41,678/151,654	0.2851
X3	Earnings Before Interest and Tax (EBIT) / Total Assets	4,754 /151,654	0.0393
X4	Book value of equity (Market capitalization) / Total Liability	60,173 /91,481	0.658

Inference:

The Working Capital to Total Assets ratio (X_1) is –0.0489, indicating that current liabilities exceed current assets, thereby creating short-term liquidity pressure and potential challenges in meeting immediate obligations. The Retained Earnings to Total Assets ratio (X_2) stands at 0.2851 (28.5%), reflecting a reasonable level of internal financing but suggesting slower profit retention. The EBIT to Total Assets ratio (X_3) is 0.0393 (3.93%), indicating low profitability and modest asset utilization. Most concerning is the Book Value of Equity to Total Liabilities ratio (X_4), which is 0.658, meaning that the company's equity covers less than two-thirds of its liabilities, signaling reduced market confidence and elevated financial risk. Overall, Telecom PLC appears to be experiencing liquidity constraints, declining investor confidence, and weakening financial strength, highlighting the need for enhanced working capital management and strategies to restore market value.

1.5.2 Ratio for Modified Altman Z-Score for the year 2020

Each of these ratios is computed separately for the relevant period, and the overall Z-Score is then determined as a weighted sum of the ratios, providing a comprehensive measure of the company's financial health and bankruptcy risk, as illustrated in the table below for the year 2020.

Table 08: **Calculated Ratio for Modified Altman Z-Score for the year 2020**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	232/146189	0.00159
X2	Retained Earnings (Revenue Reserves) / Total Assets	43350/146189	0.967
X3	Earnings Before Interest and Tax (EBIT) / Total Assets	4539/146189	0.2089
X4	Book value of equity/ Total Liability	62,443/83746	0.746

Inference:

Telecom PLC's financial ratios for this period indicate a further strengthening of its overall position. The Working Capital to Total Assets ratio (X1) has turned slightly positive at 0.00159**,** signaling that current assets now just exceed current liabilities, marking an improvement from the previously negative ratios and showing that short-term liquidity pressure has eased. The Retained Earnings to Total Assets ratio (X2) is remarkably high at 0.967 (96.7%)**,** which suggests that nearly all of the company's assets are financed through retained earnings. This reflects exceptional internal financing capacity, minimal dependence on external borrowing, and strong financial stability. The EBIT to Total Assets ratio (X3**)** stands at 0.2089 (20.89%)**,** a substantial increase compared to the previous year, demonstrating a significant improvement in operating performance and very efficient use of assets to generate profits. The X4 (Book Value of Equity/Total Liabilities**)** ratio has improved to 0.746, showing that nearly 75% of liabilities are financed through equity, which significantly strengthens solvency and reduces dependence on debt. Overall, these ratios suggest that while the company maintains solid long-term financial strength via retained earnings and equity financing, the slight working capital deficit and moderate profitability.

1.5.3 Ratio for Modified Altman Z-Score for the year 2021

The Altman Z-score calculation is based on five financial ratios. Table 09 shows the computation of these ratios for the year 2021.

Table 09: **Calculated Ratio for Modified Altman Z-Score for the year 2021**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	(1811)/158204	-0.0114
X2	Retained Earnings (Revenue Reserves) / Total Assets	46518/158204	0.294
X3	Earnings Before Interest and Tax (EBIT) / Total Assets	5085/158204	0.0321
X4	Book value of equity / Total Liability	65,672/92532	0.710

Inference:

In the previous year, the Working Capital to Total Assets ratio (X1) was 0.00159, which indicated that the company had a slightly positive working capital position relative to its total assets. However, in the current year, the ratio has dropped to –0.0114**.** The Retained Earnings to Total Assets ratio (X2) has risen to 0.294 (29.4%)**,** showing continued profit retention and a stronger internal financing base, which contributes to financial stability. The EBIT to Total Assets ratio (X3**)** stands at 0.0321 (3.21%**)**, lower than the previous year's 6.8%, signaling a drop in operating efficiency and profitability despite remaining positive. The X4 (Book Value of Equity/Total Liabilities**)** ratio is 0.710, showing that over 70% of the company's liabilities are backed by equity, which strengthens solvency and reduces reliance on debt. Overall, these ratios suggest that while Sri Lanka Telecom PLC maintains solid long-term financial strength through equity and retained earnings, its slightly negative working capital and moderate profitability indicate that short-term liquidity and operational efficiency remain areas of concern.

1.5.4 Ratio for Modified Altman Z-Score for the year 2022

Table 10 shows the computation of these ratios for the year 2022

Table 10: **Calculated Ratio for Modified Altman Z-Score for the year 2022**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	(12828)/186026	-0.0689
X2	Retained Earnings (Revenue Reserves) / Total Assets	51197/186026	0.275

X3	Earnings Before Interest and Tax (EBIT) / Total Assets	12648/186026	0.068
X4	Book value of equity / Total Liability	69,546/116480	0.5971

Inference:

The Working Capital to Total Assets ratio (X1) **is** –0.0689**,** which, though still negative, reflects an improvement in short-term liquidity compared to the previous ratio of –0. 0114, indicating that the gap between current assets and current liabilities has narrowed. The Retained Earnings to Total Assets ratio (X2) stands at 0.275 (27.5%)**,** slightly lower than the previous year, showing continued decline of profits and financial self-reliance. Importantly, he EBIT to Total Assets ratio (X3**)** has shown a notable improvement, increasing to **0.068 (**6.8%) from its previous value of 0.0321 (3.21%)**.** This indicates that the company has enhanced its ability to generate earnings from its asset base, reflecting improved operational efficiency and profitability. The X4 (Book Value of Equity/Total Liabilities) ratio is 0.5971**,** showing that nearly 60% of the company's liabilities are financed through equity, which enhances solvency but still indicates reliance on debt for the remaining obligations.

1.5.5 Ratio for Modified Altman Z-Score for the year 2023

Table 11 shows the computation of these ratios for the year 2023.

Table 11:: **Calculated Ratio for Modified Altman Z-Score for the year 2023**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	(23624)/189489	-0.125
X2	Retained Earnings (Revenue Reserves) / Total Assets	49791/189489	0.263
X3	Earnings Before Interest and Tax (EBIT) / Total Assets	(1611)/189489	-0.0085
X4	Book value of equity / Total Liability	68,140/121349	0.562

Inference:

. The Working Capital to Total Assets ratio (X1) **is** –0.125, indicating that current liabilities are significantly higher than current assets, which raises concerns about short-term liquidity and the ability to cover immediate obligations. The Retained Earnings to Total Assets ratio (X2) **of** 0.263 (26.3%) shows that a healthy portion of assets is financed through accumulated

profits, reflecting financial maturity and reduced reliance on external borrowing. However, the EBIT to Total Assets ratio (X3) **is** –0.0085**,** meaning the company recorded an operating loss relative to its total assets during the period, signaling weak profitability and possible operational inefficiencies. The X4 (Book Value of Equity/Total Liabilities) ratio is 0.562, which, although moderate, shows that equity finances just over half of the company's liabilities, suggesting a reasonably sound solvency position but with a noticeable reliance on debt.

1.5.6 Ratio for Modified Altman Z-Score for the year 2024

Table 12 shows the computation of these ratios for the year 2024

Table 12: **Calculated Ratio for Modified Altman Z-Score for the year 2024**

Variable	Formula	Calculation	Value
X1	Working Capital / Total Assets	(6,293)/180,895	-0.03479
X2	Retained Earnings (Revenue Reserves) / Total Assets	51,893/180,895	0.2869
X3	Earnings Before Interest and Tax (EBIT) / Total Assets	3,020/180,895	0.01669
X4	Book value of equity / Total Liability	70,242/110,653	0.634

Inference:

The negative Working Capital to Total Assets ratio (X1**)** highlights a short-term liquidity challenge, as current liabilities exceed current assets, which may strain cash flow. However, the Retained Earnings to Total Assets ratio (X2) of 28.69% demonstrates strong internal financing and accumulated profitability, reducing dependence on external debt. The EBIT to Total Assets ratio (X3) shows a modest operating return of 1.67%, suggesting that while the company is profitable, there is room to improve asset utilization and operating efficiency. On a positive note, the X4 (Book Value of Equity/Total Liabilities) ratio stands at 0.634**,** **s**uggesting that equity finances a substantial portion of liabilities, which strengthens the firm's solvency position.

1.5.7 Summary of the Altman Z score

As per the modified equation presented in the methodology section, the calculated Altman Z-Score is summarized in the table below.

Table 13: summary of Altman Z-score of Sri Lanka Telecom PLC

Year	Altman Z score	Bankruptcy Position	**Threshold values for the Z score**
2019	1.56	Grey Zone	1.1< Z" < 2.6
2020	5.34	Safe Zone	Z" > 2.6
2021	1.85	Grey Zone	1.1< Z" < 2.6
2022	1.53	Grey Zone	1.1< Z" < 2.6
2023	0.57	Distress Zone	Z" < 1.1
2024	1.49	Grey Zone	1.1< Z" < 2.6

The Altman Z-score analysis of Sri Lanka Telecom PLC from 2019 to 2024 indicates a fluctuating financial position, with the company spending most years in the Grey Zone, except for 2020 when it reached a Safe Zone score of 5.34, and 2023 when it dropped to the Distress Zone with a score of 0.57. The Grey Zone scores in 2019 (1.56), 2021 (1.85), 2022 (1.53), and 2024 (1.49) suggest that the company remained in a financially vulnerable state, requiring close monitoring to prevent further deterioration. The exceptional Safe Zone result in 2020 appears to be an outlier, likely due to one-time gains or significant improvements in profitability, liquidity, or capital structure, which were not sustained in subsequent years. The sharp decline into the Distress Zone in 2023 signals serious financial stress, possibly caused by declining operating profits, rising liabilities, or cash flow shortages, indicating a heightened risk of insolvency if corrective action is not taken. Although the company showed partial recovery in 2024, returning to the Grey Zone, its Z-score remains below the safe threshold, implying continued bankruptcy risk. Therefore, Sri Lanka Telecom PLC must prioritize liquidity management, improve profitability, reduce debt levels, and implement sustainable financial strategies to achieve a stable Safe Zone position in the coming years (Altman, 1983).

1.6 Conclusion

The analysis of Sri Lanka Telecom PLC's Altman Z-Score from 2019 to 2024 reveals a financially unstable trajectory, with the company predominantly in the Grey Zone, a brief Safe Zone performance in 2020, and a concerning dip into the Distress Zone in 2023. This pattern underscores significant financial vulnerability and highlights the need for immediate and sustained corrective measures to ensure long-term solvency.

Based on these findings, it is recommended that Sri Lanka Telecom PLC focus on improving operational efficiency, strengthening liquidity, restructuring short-term debt, and optimizing its capital structure to enhance financial stability. Management should also implement robust cost-control strategies and explore revenue diversification to mitigate potential financial shocks. Stronger earnings retention and a balanced capital structure have reduced financial risk (Novitasari & Rahadi, 2023), collectively strengthened the company's financial position and minimized bankruptcy risk. To sustain this stability, the company should continue enhancing profitability and maintaining a healthy balance between debt and equity financing (Altman, 1983). Additionally, improving working capital management can further mitigate liquidity-related risks (Alkhatib & Bzour, 2011). Monitoring external factors such as industry competition and economic conditions is also essential, as they may influence future Z-Score movements. Maintaining this proactive approach can help the company remain in the Safe Zone and secure long-term financial sustainability. Future studies could undertake a comparative analysis of Altman Z-Scores across multiple telecom operators in Sri Lanka to benchmark financial health within the industry, and employ alternative bankruptcy prediction models, such as Springate, Ohlson, or Zmijewski models, to validate and compare results.

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