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STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

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A STUDY ON FINANCIAL HEALTH OF KINGFISHER AIRLINES LTD: (Z- SCORE APPROACH)**JIGNESH. B. TOGADIYA****ASST. PROFESSOR****SHREE SWAMINARAYAN NAIMISHARANYA COLLEGE OF MANAGEMENT & IT****BHAVNAGAR UNIVERSITY****BHAVNAGAR****UTKARSH. H. TRIVEDI****ASST. PROFESSOR****SHREE SWAMINARAYAN NAIMISHARANYA COLLEGE OF MANAGEMENT & IT****BHAVNAGAR UNIVERSITY****BHAVNAGAR****ABSTRACT**

Most of the external users like bankers, financial institutions, investors, government, NGOs etc have been focusing on the success and survival of the business while they were dealing with the same. Financial soundness of a firm is reflected through various financial parameters which are closely associated with each other. A general belief is that a firm's operating performance depends on certain key financial factors viz., turnover, profit, asset utilization etc and the variables which are found in profit and loss account and balance sheet of a firm have a direct or indirect relation with each other. In order to measure the performance, ratios, the indicators, are normally used to identify the financial health of the firm. Edward I Altman, Professor of Finance at New York University was the first person who developed a new model popularly known as "Z-score Model" to predict the financial health of the business concerns. He considered five ratios and assigned a weight for each ratio and produced a single number which indicates the financial health of the business concerns. In this research paper an attempt is made to predict the financial health of one selected sample Airlines companies (Kingfisher Airlines Ltd.) for five years 2007 to 2011 using Altman's model. The research findings of the study are that the overall financial health of Kingfisher Airlines Ltd was bad.

KEYWORDS

Working Capital, Total assets, Market value of equity share, Earnings before interest and tax.

INTRODUCTION

The importance of financial management practices have excelled in every area of business. The success of any business is largely depends on its effective financial management practices which starts with procurement of funds and ends with effective utilization of funds. In the changing scenario, every business strives hard for survival in this growing era of core competence. Survival of the business in the modern world is possible, only when, apart from other things, it has sufficient finance. The financial requirements of a business must be sufficient to meet its long-term and short-term commitments. To meet long-term commitment, it needs permanent capital and for short-term commitment, it needs working capital. Thus, Finance is a significant facet of every business. Both excessive as well as inadequate finance positions are dangerous from the business point of view. In other words, finance is back bone of any business. Any business without finance is a wingless bird. Therefore the financial analyst is responsible to monitor the financial position of the business regularly. The performance of the company is judged through its financial statements, which throws light on the operational efficiency and financial position of the company. Financial statements are the sources for financial information, based on which the financial planning and decision making is done. The profit and loss account provides data about the operating activities where as balance sheet provides the value of acquired assets and liabilities of the business at a particular point of time. The absolute figures reported in the financial statements do not serve the purpose of measuring the financial health of the companies. Hence, the financial analyst has to analyze the financial data in order to ascertain the strengths and weaknesses of the companies. Despite the financial analyst had many analytical tools, ratio analysis is most powerful toll to ascertain the financial health of the companies. Alone a single ratio does not serve the purpose. Therefore, it is necessary to combine the different ratios into a single measure of the provability of sickness or failure. **Multiple discriminant analysis** is useful tool in such situations. "The use of MDA helps to consolidate the effect of all ratios". The present study is concerned with the analysis of financial health of Kingfisher Airlines Ltd.

ABOUT THE COMPANY

Kingfisher Airlines Ltd. was initially incorporated as a private limited company on 15th June, 1995 in Karnataka with the main object of pursuing chartered aviation services both for commercial and non commercial purposes in India and to provide all aviation's related services. Our Company was promoted by Capt. G.R. Gopinath, Capt. K.J. Samuel and Capt. Vishnu Singh Rawal.

Today's air traveler is like any other consumer looking for value for money. Disposable incomes are on the rise and the consumer is willing to spend more for quality and brands. Air travel is no more about transporting passengers. It is more about the flying experience. People like travelling in planes. 'Kingfisher airlines' has a very good social image. Being five star airlines, customers want to travel with Kingfisher. Also, the brand charges a premium price that is why only upper Socio Economic Class people prefer Kingfisher airlines. The lifestyle of the people is improving. Luxury is becoming necessary. They are ready to pay more for luxury services. Kingfisher has a strong advantage here. So, we can conclude that sociological conditions are favoring Kingfisher airlines.

OBJECTIVES OF THE STUDY

The objectives of this study are as follows:

- 1) To assess the overall financial performance of the company
- 2) To know the efficiency in financial operations
- 3) To predict the financial health and viability of the company

RESEARCH METHODOLOGY

The study was concerned with Kingfisher Airlines Ltd. This study was based on the secondary data which was obtained from the published sources i.e. Annual report for the period of 5 years (2007 to 2011). The collected data was analysed with the help of ratio analysis. The many accounting ratios used to predict the financial performance of the company, gives a warning only when it is too late to take corrective action.

Keeping the above view in mind, the "Z score" analysis has been adopted to monitor the financial health of the company to predict as well as to avoid business failure and subsequent bankruptcy.

LIMITATIONS OF THE STUDY

- 1) The study is confined to only one Airlines company.
- 2) The present study covers only a period of five years.
- 3) The collected data for the present study is secondary data.

REVIEW OF LITERATURE

Many of the research works have been conducted, over the period by applying the Multiple Discriminant Analysis to predict the corporate failure. **W.H. Beaver (1966)** was the first researcher to study the prediction of bankruptcy using financial data. His analysis was based on ratios and identified ratios, which have discriminating power to predict the bankruptcy of the companies using failed and non-failed 79 manufacturing companies in each of two matched pair groups.

Altman I. Edward (1968) was the classical Multiple Discriminant Analysis technique with five financial ratios is used for predicting the risk of failure and developed a model (Z score) to find a bankruptcy prediction model based on a sample composed of 66 manufacturing companies with 33 companies in each of two matched-pair groups (33 publicly-traded manufacturing bankrupt companies between 1946 and 1965 and matched them to 33 firms on a random basis for a stratified sample), which is built out of the five weighted financial ratios.

Jonah Aiyabei (2002) discussed the theoretical aspect of a financially distressed firm based on a cyclical concept and examined the financial performance of small business firms based in Kenya using Z score model.

Praveen kataria in his study attempted to predict corporate sickness of the companies. Financial information about all the sick companies was collected for five years before sickness. Healthy companies were matched with the sick companies on the basis of industry composition size. 54 financial ratios and 8 macro economic variables were taken to study their effect along with financial ratios.

Rekha Pai dealt with the prediction of industrial sickness using multiple discriminant analysis. The data set constitutes 21 financial ratios of 34 Indian sick companies in 2001 and 38 contemporary non sick companies, both selected irrespective of size and industry category 3 years prior to sickness. The multiple discriminant analysis (MDS) showed greater accuracy in predicting industrial sickness up to three years in advance.

Ramakrishna in his paper examined two well known financial distress model namely multiple discriminate analysis and logistic regression analysis by using a sample of 298 firms. The study found that cash flow and working capital are important predictive variables, irrespective of when compared to any other models. The selected models were also found to be capable of predicting with minimum errors, one year in advance, which is vital for the bankers, restructuring agencies and the management to initiate revival process before the company actually gets in to financial distress.

In Indian context, **L.C Gupta (1999)** attempted a refinement of Beaver's method with objective of predicting the business failure. Whereas Mansur. **A.Mulla (2002)** made a study in Textile mill with the help of Z score model for evaluating the financial health with five weighted financial ratios and followed by Selvam M, and others (2004) had revealed about Cements industry financial health especially India Cements Limited. **Krishna Chaitanya (2005)** used Z model to measure the financial distress of IDBI and concluded that IDBI is likely to become insolvent in the years to come.

Z SCORE INGREDIENTS

About 40 years ago, **Edward I. Altman**, a financial economist at New York University's Graduate School of Business, developed a model for predicting the likelihood that a company would go bankrupt. This model uses five financial ratios that combine in a specific way to produce a single number. This number, called the Z score, is a general measure of corporate financial health. The most famous failure prediction model is Altman's Z-Score Model. Based on **Multiple Discriminate Analysis (MDA)**, the model predicts a company's financial health based on a discriminant function of the form.

$$Z = 0.012X1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.999X5$$

X1=Working capital/Total assets

X2=Retained earnings/Total assets

X3=Earnings before interest and taxes/Total assets

X4=Market value of equity/Book value of total liabilities

X5=Sales/Total assets

The Z-Score model (developed in 1968) was based on a sample composed of 66 manufacturing companies with 33 companies in each of two matched-pair groups. Altman subsequently developed a revised Z-Score model (with revised coefficients and Z-Score cut-offs) which dropped variables X4 and X5 (above) and replaced them with a new variable X4 = net worth (book value)/total liabilities. The X5 variable was allegedly dropped to minimize potential industry effects related to asset turnover.

The Z score is calculated by multiplying the following accounting ratios, which is efficient in predicting bankruptcy.

1. X1 (Working Capital / Total Assets)

This ratio expresses of the liquidity position of the company towards the total capitalization. Working capital is defined as the difference between current assets and current liabilities. Liquidity and size characteristics are explicitly considered.

2. X2 (Retained Earning / Total Assets)

It indicates the amount reinvested, the earnings or losses, which reflects the extents of company's leverage. In other words, the extent to assets, which have been paid for by company profits. Those firms with high RE relative to TA have financed their assets through retention of profits and have not utilized as much debt. It also highlights either the use of internally generated funds for growth (low risk capital) Vs OPM (other people's money) – high risk capital. This is measure of cumulative profitability overtime and leverage as well.

3. X3 (EBIT / Total Assets)

It is the measure of the company's operating performance and also it indicates the earning power of the company. In addition, this is a measure of the productivity of the firm's assets, independent of any tax or leverage factors. Since a firm's ultimate existence is based on the earning power of its assets, this ratio appears to be particularly appropriate for studies dealing with credit risk.

4. X4 (Market Value of Equity / Book Value of Total Liabilities)

It is the measure of the long-term solvency of a company. It is reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares. While debt includes both current and long term liabilities. This measure shows how much assets of an enterprise can decline in value of an enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

5. X5 (Sales / Total Assets)

This is a standard turnover measure. Unfortunately, it varies greatly from one industry to another. In addition to this, it will reveal the sales generating capacity of the company's assets and also measure of management's capacity to deal with competitive conditions.

GUIDELINES

TABLE 1: ALTMAN GUIDELINES

Situation	Z Scores	Zones	Remarks
I	Below 1.8	Bankruptcy	Its failure is certain and extremely likely and would occur probably within a period of two years.
II	Between 1.8 and 2.99	Healthy	Financial viability is considered to be healthy. The failure in this situation is uncertain to predict.
III	3.0 and above	Too Healthy	Its financial health viable and not to fail

EMPIRICAL ANALYSIS

TABLE 2: "Z SCORE" INGREDIENTS OF KINGFISHER AIRLINES LTD. (In Crore)

YInear	2011	2010	2009	2008	2007
Working capital	1,734.76	1,343.35	329.19	491.59	607.59
Total assets	8,631.86	7,978.97	7,400.39	1,830.09	1,757.49
Retained Earning	-4,005.02	-4,268.84	-2,496.36	52.99	249.23
EBIT	822.6	-175.69	-87.5	-229.84	62.03
Market value of equity	4193.01	1696.6	1212.12	1657.44	1249.71
Total Liabilities	11,520.94	11,830.63	9,480.19	1,621.69	1,365.86
Sales	6,233.38	5,067.92	5,269.17	1,456.28	1,800.21

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

TABLE 3: SHOWING THE NET WORKING CAPITAL TO TOTAL ASSETS RATIO OF KINGFISHER AIRLINES LTD. (IN CRORE)

Year	2011	2010	2009	2008	2007
Working capital	1,734.76	1,343.35	329.19	491.59	607.59
Total assets	8,631.86	7,978.97	7,400.39	1,830.09	1,757.49
Working capital / Total assets	0.20097	0.16836	0.04448	0.26862	0.34571

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

It may be observed from the table 3 that the working capital to total assets ratio of Kingfisher Airlines Ltd had been around 0.201 to 0.346. This ratio of company is very fluctuates. Whereas total assets increased year by year which shows the company had more concentration on the investments in fixed assets. The efficiency of this company in the matter of management of working capital helps the company to maintain the good financial health. But the working capital management of this company was satisfactory and not effective and sound.

This analysis will help Kingfisher Airlines Ltd. in maintaining the appropriate working capital i.e. neither low nor high level of investments in current assets without disturbing the basic liquidity position of the companies.

TABLE 4: SHOWING THE RETAINED EARNINGS TO TOTAL ASSETS RATIO OF KINGFISHER AIRLINES LTD. (IN CRORE)

Year	2011	2010	2009	2008	2007
Retained earning	-4,005.02	-4,268.84	-2,496.36	52.99	249.23
Total assets	8,631.86	7,978.97	7,400.39	1,830.09	1,757.49
Retained earnings / Total assets	-0.464	-0.535	-0.3373	0.02895	0.14181

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

The ratio of retained earnings to total assets indicates that how much portion of total assets has been financed by retained earnings. Higher the ratio greater the financial stability of the company at times of low profitability periods. And also it depicts that the company utilizing its own earnings as cheaper source of finance rather than debt finance.

From the table 4 it is observed that Kingfisher Airlines Ltd. Negative retained earnings in year 2009 to 2011. It shows the negative profitability of company. This study shows that Kingfisher Airlines Ltd have been utilizing more debt rather than retained earnings. The decreasing trend of retained earnings during the study period indicates that the unsustainable growth of the Kingfisher Airlines Ltd.

TABLE 5: SHOWING THE EBIT TO TOTAL ASSETS RATIO OF KINGFISHER AIRLINES LTD. (IN CRORE)

Year	2011	2010	2009	2008	2007
EBIT	822.6	-175.69	-87.5	-229.84	62.03
Total assets	8,631.86	7,978.97	7,400.39	1,830.09	1,757.49
EBIT / Total assets	0.095298	-0.02202	-0.01182	-0.12559	0.035295

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

The operational performance and earning power could be accessed through EBIT to Total assets which lead the business success or failure. The profitability of the company was very low. From year 2007 to 2011 company's profit was slight increase but compare to profit there was more increase in total assets. In short, this ratio indicates that the overall profitability of the company was very low.

TABLE 6: SHOWING THE MARKET VALUE OF EQUITY TO TOTAL LIABILITIES RATIO OF KINGFISHER AIRLINES LTD. (IN CRORE)

Year	2011	2010	2009	2008	2007
(No. of share in lakhs)	10,508.80	3629.1	3629.1	1358	1354.7
Market Price (As on 31 st March)	39.9	46.75	33.4	122.05	92.25
Market Value	419301.1	169660.4	121211.9	165743.9	124971.1
MV of Equity	4193.01	1696.6	1212.12	1657.44	1249.71
Total Liabilities	11,520.94	11,830.63	9,480.19	1,621.69	1,365.86
Market value of equity / Total Liabilities	0.363947	0.143407	0.127858	1.022045	0.914962

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

The table 5 shows that, the market value of equity and total liabilities increased every year but not in the same proportion. Equity to debt ratio indicates the proportion of owner's fund to the long term debt. The idle ratio is 1:1. Where debt is more, the company has an obligation to pay interest to the creditors and thereby the shareholders risk may be increased. From above table we observed that compare to market value of equity, total liabilities was more. If debt is more than the equity it will reduce the profit of the company, despite increases the profitability of the share holders. It will be a curse in times of bad performing.

On the basis of the analysis pertaining to this ratio, it may be concluding that the financial health of the Kingfisher Airlines Ltd. is quite bad. It cannot provide a margin of safety to its creditors in times of bankruptcy. Therefore it is advised the Kingfisher Airlines Ltd. has to take an appropriate step to improve the equity portion as per its benchmark.

TABLE 7: SHOWING THE SALES TO TOTAL ASSETS RATIO OF KINGFISHER AIRLINES LTD. (IN CRORE)

Year	2011	2010	2009	2008	2007
Sales	6,233.38	5,067.92	5,269.17	1,456.28	1,800.21
Total Assets	8,631.86	7,978.97	7,400.39	1,830.09	1,757.49
sales/total assets	0.722136	0.63516	0.712012	0.795742	1.024307

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

Sales revenue plays a pivotal role in overall performance of the companies because all the operations are more or less depend on the sales revenue. Sales to total assets ratio measure the power of the asset in generating the sales. Higher ratio indicates the better performance and while poor ratio indicates the poor financial management of the companies in the optimum utilization of its assets in generating the sales revenue.

Based on the information from table 6 it was crystal clear that Kingfisher Airlines Ltd. still had an opportunity to improve its sales capacity but had been totally failure to utilize their assets optimally in generating the sales revenue. It will have an adverse effect on its performance. It is suggested that to company has to take appropriate steps in the optimum utilization of its assets in generating more and more sales revenue.

TABLE 8: SHOWING THE "Z SCORE" POINTS OF KINGFISHER AIRLINES LTD FROM 2007 TO 2011

$$Z = (0.012X1 + 0.014X2 + 0.033X3 + 0.006X4 + 0.999X5)$$

	Ingredients \ Year	2011	2010	2009	2008	2007	MEAN
x1	WC/ TA	0.20097	0.16836	0.04448	0.26861	0.34571	0.20562
x2	Retained Earnings / TA	-0.46398	-0.53501	-0.33733	0.02895	0.14181	-0.23311
x3	EBIT / TA	0.095298	-0.02202	-0.01182	-0.12559	0.035295	-0.00577
x4	MV eq. / Total Lia.	0.36394	0.14340	0.12785	1.02204	0.91496	0.51444
x5	Sales/TA	0.72213	0.63516	0.71201	0.79574	1.02430	0.77787
	"Z Score"	0.72266	0.62919	0.70749	0.80056	1.03607	0.77919

(Source: Computed from Annual report of Kingfisher Airlines Ltd year 2007 – 11)

Inference

For determining the financial health of this company, this study used Z score model, which provides the financial soundness of a business. The table 7 shows the Z score values of this company. As per the Altman's guidelines, the company financial position is not healthy during the study period which was tested through Z score model.

Lastly I conclude that Kingfisher Airlines Ltd's score value in 2011 is below 1.8 the unit is considered to be in bankruptcy zone.

MAJOR FINDINGS

- 1) Overall, it is clear that this company's financial position is not healthy during the study period. The unit is considered to be in bankruptcy zone.
- 2) Year to Year Company's investment in current assets was increase. It shows the inefficiency of this company in the matter of management of working capital was not satisfactory which cannot help the company to maintain the good financial health.
- 3) Company has been utilizing more debt rather than retained earnings.
- 4) EBIT to Total Assets ratio indicates that the overall profitability of the company was very low.
- 5) The market value of equity and total liabilities increased every year but not in the same proportion. Company's MV of equity to total Liabilities ratio was bad. It cannot provide a margin of safety to its creditors in times of bankruptcy.
- 6) Company still had an opportunity to improve its sales capacity but had been totally failure to utilize their assets optimally in generating the sales revenue.

CONCLUSION

Financial health of a firm is a centre theme for share holders. Any decision of a firm is taken on the basis of financial soundness of a firm. In this context, Altman's Z score plays a vital role in deciding the financial bankruptcy of a firm and there by a firm can judge its financial position. The present study was conducted to analyze and predict the financial performance of Kingfisher Airlines Ltd. The study revealed that the company is not financially sound during the study period. It means the company's overall financial health was bad.

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