An Empirical Study on Balance Sheet Analysis

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ABSTRACT

The Statement which shows the financial position of a concern as on a particular date is a Balance Sheet. The analysis of the Balance Sheet is an effective measure and indicator to check the soundness of financial activities of a particular business concern. The present study is an attempt to find out how the Balance Sheet can be analysed for the growth of a concern and whether capital budgeting and working capital management can be effectively adopted. An empirical analysis of the private companies reveal how the fundamental analysis can help in improving the health of the concern. The three main fundamental components- the assets, liabilities and capital constitute the important indicators for analyzing the Balance Sheet for depicting the profitability, growth and soundness of business concern.

Key words: Finance, Capital Budgeting, Capital Investment, Profitability, Growth, Soundness.

JEL Classification: F65, G31, E22.

Introduction

A statement which reflects the true position of assets and liabilities as on a particular period is known as Balance Sheet. It is also known as financial statement. In view of the changing scenario, the assets and liabilities changes from time to time as a result of business transactions, the businessman must necessarily feel anxious to find out what his true financial position is at the end of each trading period. Firstly, the businessman would like to know whether the net profit as is disclosed by the profit and loss account is correctly arrived at, if so, his capital at the end of the period must necessarily increase by that amount. He is equally anxious to see for himself as to how such capital is made up. He has to analyse and assess the fixed assets, investments and current assets, loans and advances and present them on the asset side of the Balance Sheet.

Similarly, the share capital, fixed liabilities, current liabilities and provisions on the liabilities side. Thus the several assets and liabilities which he has set out as at that date in the shape of a statement is called Balance Sheet.

Balance Sheet is prepared from the trial balance, after all the balances on nominal account are transferred to the trading and profit and loss account and corresponding account in the ledger are closed. The balances now left in the trial balance and remaining one in the ledger represents either personal or real account. All assets and liabilities are set out in the balance sheet in a systematic manner.

According to **T.R. Batliboi**, "A Balance Sheet is a statement prepared with a view to measure the exact financial position of a business on a certain fixed date".

The fundamental analysis of Balance Sheet is helpful for the preparation of fund flow statement which throws light on the sources from which funds have been raised and where they have been applied. It indicates the operational efficiency of the firm, to analyse the working capital requirement. The fundamental analysis of Balance Sheet helps in calculation of financial ratios both short term and long term and helps to know the capital employed.

Assets = Liabilities + Equity

Objective of the Study

- ➤ To analyse the financial position and performance of companies with respect to assets, liabilities and capital.
- ➤ To give recommendation and suggestions for improvement of performance and the financial position.

Balance Sheet Module – An Overview

- Operating Receivable Balances
- Book Intangible Balances
- Operating Payable Balances
- Capital Payable Balances
- Deferred Tax Assets and Liabilities, Income Tax Payable
- Debt Balance, Interest Payable, Re-financing Fees
- Equity Balances, Dividends Payable, Re-financing Fees
- Opening Cash at Bank
- Opening Retained Profits
- Cash at Bank
- Net Profit after tax

Source: Financial Analysis and Business Valuations, The Institute of Cost Accountants of India, Kolkata, Final Paper 20.

Review of Literature

Kennedy Muller, Analysis and interpretation of financial statement is an attempt to determine the significance and meaning of the financial statement date, so that the forecast may be made of the prospects for future earning, ability to pay interest charges and debt maturities of long term as well as short term profitability of a sound dividend policy.

Boris Nenide, Robert W Pricer S Michael Camp (2001): These authors have presented a paper reviewing literature of various financial ratios that have been used in research in the area of accounting and finance. It reveals that the use of ratio calculations with multivariate analysis for predicting the performance of business firms is common.

Daron Nissin, Stephen H Penman (2001): This paper presents a financial statement analysis that distinguishes leverage that arises in financial activities from leverage that arises in operations. Here financial statement analysis distinguishes two types of liabilities which aids in the forecasting of future profitability and the evaluation of appropriate price-to-book ratio.

Patricia M Fairfied, Sundaresh Ramnath (2005): A long history of economic theory suggests that industry membership plays an important role in explaining a firm's financial performance. In this paper, they investigate the usefulness of industry benchmarks and industry level analysis for predicting a firm's future profitability and growth.

Silvio John Camilleri (2005): The paper consolidates the summarized financial statements of the main banks operating in Malta during the year 2002. The profitability, risk and growth prospects of the two institutions are analysed through Return on Equity decomposition and the use of other financial ratios.

Luiz Paulo Lopes Favero (2008): Literature has not reached a consensus on how the firms and industry effects influence the stock price performance of publicly-traded companies over time. Through a sample of 45 companies working in ten industries during an eight year period (2001-2008) totaling 317 observations, low representativeness of the activity industry is verified to distinguish the mean annual profitability and the growth rates of stock prices among companies listed.

John Myer, a renowned authority on Financial Statement Analysis, has referred that in the initial years of 20th Century, the bankers and securities exchange authorities were extensively relying on the financial statements of the companies for analysis, monitoring and control of the activities and performance of businesses. The history, principles and financial statement analysis has been referred by another authority also: Kennedy and McMullan.

Chaudhary and Singh (2012) analysed the impact of the financial reforms on the soundness through their impact upon asset quality.

Gupta (2008) conducted a study with the main objective to assess the performance. The study analysed and assessed the quality, ability and liquidity position of a concern.

Prasuna (2004) analysed the performance of the business concerns. The author concluded that better service quality, innovative products and better bargains were beneficial because of the prevailing tough competition.

Kwan and Eisenbeis (1997) observed that asset quality was commonly used as a risk indicator for financial institutions which also determined the reliability of capital ratios. Their study indicated the capitalization affected the operations of financial institutions. More the capital, the higher is the efficiency.

Bereskin, Kieschnick and Wendy (2014) examined the financial statements of US Firms for a period from 1990-2012. The study investigated what were the popular methods of managing earnings. The causes of changes were also analysed.

Beatrice and Dacian (2011) highlighted a recommendation on refining the mechanism of detecting manipulation of accounts. Numerous empirical studies were scrutinized to develop a sturdy model for making the detection of accounts manipulation easy. Since management of earnings which is a component of Balance Sheet distorts the quality of accounting information, the method to estimate a precise process is complex. Therefore, the paper proposed a new field of research by emphasizing various aspects of accounting manipulations. The paper suggested that regulating the circumstances and motivations tend to surge the probability of its occurrence and also evolve sturdier tools for analyzing the statement.

Profile of Companies with different nature of Business

Two companies with different nature of business are selected for this study.

The first company deals with the computer business, which is an independent integrator designed to fit solutions covering storage, delivery, backup, archival, management and disaster recovery of vital data. As independent providers, the company is free from vendor imposed constraints, enabling them to design a solution that is completely needing appropriate, with no hidden agenda and no unnecessary costs. The company solutions often incorporate the most current technologies available, the company has been the first to pioneer the use of new technologies and products.

The second company is a manufacturer and exporter of silk. The company has geared up the export promotion efforts not only in the existing markets but also in the new and upcoming markets which has brought favourable results. The initiatives taken by the company has not only increased the volumes but also improved productivity, reducing rejections, improving quality and hence reducing costs. The company follows the mercantile system of accounting and recognizes incomes and expenditure on accrual basis except for insurance claims, which is accounted for on cash basis. The accounts are prepared on historical cost basis as a going concern and are consistent with generally accepted accounting principles.

Hypothesis of the Study

Hypothesis are conjectures and tentative statements the validity of which remains to be tested. They indicate the directions the research programme should take. Accordingly, the present study has constructed the hypothesis by considering the latest tools and devices for the analysis and interpretation with the aim of testing them by adopting the recent trends.

On the basis of the published annual reports of the companies and on the basis of the opinion of the researcher a hypothesis has been formulated. The hypothesis is based on a cause and

effect model. The trend depends on many variables like the company's fundamentals like turnover, net profit, earning per share, price earning ratio etc, size of the company, number of shareholders and its flow of funds and cash.

The tools adopted for the study are comparative statements, common-size statements, trend analysis, fund flow statements, cash flow statements, net working capital analysis and ratio analysis. The hypothesis is also supported by the feedback obtained from the pretested data assumed and given for the study.

Methodology

In order to achieve the objectives of the study and to analyse the different components of Balance Sheet, an appropriate methodology has been adopted. The present study is an empirical study.

Scope of Study

The study covers a period from the year 2013 to 2016.

Sources of Data and Data Collection

The sources of data required for the study consists of primary data and secondary data. The primary data can be collected from the Chief Accounts Officer and the secondary data from the Balance Sheets of the two companies, Financial Journal, Annual Report, Books and Inflibnet.

Statistical Tool

For analyzing the behavior of the compiled data, various statistical and financial tools were applied. Consolidated Balance Sheets were prepared to ascertain the overall financial position. The techniques of Balance Sheet Analysis which are used in the Study are ratio analysis, comparative statements, common size statements, trend analysis and cash flow statement.

For analyzing the behaviour of the ratios and compiled data, various statistical tools such as arithmetic mean, average annual growth rate, standard deviation and correlation were used.

Results and Discussions

The Balance Sheet can be analysed by using any one of the following methods namely, comparative financial statement analysis, common-size statement analysis, trend analysis, ratio analysis, fund flow analysis and cash flow analysis.

Analysis and interpretation of balance sheet is the process of classifying the facts and figures given in the statement into simple understandable component or elements and establishing the relationship between the elements, explaining the significance of the relationship between the classified component with a view to provide a full picture of the profitability and the financial position of the enterprise.

From the Balance Sheet of the First Company which deals with computer business is analysed on the following grounds:

DETERMINATION OF LIQUIDITY POSITION:

Current Ratio= Current Assets/Current Liabilities

Table No 1 showing the Current Ratio of the First Company dealing with Computers

(Rs in crores)

Particulars	2013	2014	2015	2016	
Current Assets	44.70	82.84	83.30	134.15	
Current Liabilities	38.93	61.57	37.26	127.23	
Current Ratio	1.14	1.34	2.23	1.05	

The generally accepted current ratio or ideal ratio is 2:1. It means for every one rupee of current liability, there should be two rupees of current assets to ensure better solvency position. A company which has current ratio as 2 or more reflects the sufficient liquidity and enough working capital.

DETERMINATION OF SOLVENCY:

Ratio of Current Assets to Fixed Assets = Current Assets/ Fixed Assets

Table No 2 showing Current Asset to Fixed Assets of the First Company (Rupees in crores)

Particulars	2013	2014	2015	2016
Current Assets	44.70	82.84	83.30	134.15
Fixed Assets	6.12	10.25	16.25	19.66
Ratio	7.30	8.08	5.13	6.82

It is the ratio between current assets and fixed assets of a company. Generally, it is interpreted as more the ratio more will be the solvency and as such there is no ideal or standard ratio.

DETERMINATION OF OUTSIDERS FUNDS TO THE SHAREHOLDERS FUND

Debt Equity Ratio = Debt / Equity

Table No 3 showing Debt Equity Ratio of the First Company dealing with business of computers

(Rupees in Crores)

Particulars	2013	2014	2015	2016
Equity Share Capital	30.82	40.55	52.00	60.00
Debentures	12.00	35.00	41.00	40.00
Ratio	2.57	1.16	1.27	1.50

It is the ratio of debts or long term liabilities and equity or owners funds. The generally expected level of debt equity ratio is 2:1, it is understood that the financial soundness of a company is satisfactory.

DETERMINATION OF WORKING CAPITAL REQUIREMENTS

Working Capital = Current Assets – Current Liabilities

Table No 4 showing Working Capital of the First Company dealing with computers

(Rupees in Crores)

Particulars	2013	2014	2015	2016
Current Assets	44.70	82.84	83.30	134.15
Current Liabilities	38.93	61.57	37.26	127.23
Working Capital	5.77	21.27	46.04	6.92

It indicates the financial ability of a concern to meet its day to day expenses. It is said that more the solvency ratio, more is the financial soundness.

DETERMINATION OF FINANCIAL EFFICIENCY

Financial Trend Analysis of the First Company dealing with the business of Computers

(Rupees in Crores)

Particulars	2013	Trend %	2014	Trend %
LIABILITIES				
Share Capital	30.82	60	40.55	44
General Reserve	3.00	6	4.00	4
Debentures	12.00	24	35.00	37
Current Liabilities	5.00	10	14.00	15
TOTAL	50.82	100	93.55	100
ASSETS				
Computers	3.12	6	5.25	6
Furniture	1.00	2	2.00	2
Building	2.00	4	3.00	3
Stock	30.70	60	50.00	53
Debtors	10.00	20	30.00	32
Cash	4.00	8	3.30	4
TOTAL	50.82	100	93.55	100

The Balance Sheet Analysis of the Second Company dealing with the manufacturing of Silk is analysed on the following grounds:

LIQUIDITY POSITION

Current Ratio = Current Assets/Current Liabilities

Table No 1 Showing the Current Ratio of the Second Company dealing in silk business

(Rupees in Crores)

Particulars	2013	2014	2015	2016	
Current Assets	14.90	15.70	17.40	19.40	
Current Liabilities	2.02	2.36	5.00	7.73	
Current Ratio	7.37	6.65	3.48	2.50	

The ideal ratio is 2:1, the company's short term solvency position is good.

INVESTMENTS IN FIXED ASSETS

Fixed Asset Ratio = Fixed Assets/Long Term Funds

Table No 2 Showing Fixed Asset Ratio of the Second Company dealing in silk business

(Rupees in Crores)

Particulars	2013	2014	2015	2016	
Fixed Assets	21.57	19.46	17.84	20.44	
Long Term Funds	15.52	12.10	9.95	10.06	
Fixed Asset Ratio	1.40	1.61	1.79	2.03	

The ratio between these two elements is of great importance for ascertaining the financial soundness of a company. Fund allocation more than 2/3 or 67% towards fixed assets is a sign of blocking of funds and shortage of funds for working capital.

WORKING CAPITAL REQUIREMENTS

Working Capital = Current Assets – Current Liabilities

Working capital means the capital available for the working of a business after its fixed assets have been acquired. The current assets are valued at cost or market price whichever is less. After the computation of working capital, it enables to determine working capital turnover ratio. It is the ratio between net sales and working capital of an Organisation.

Working capital is directly co-related with sales or turnover. More the turnover, more will be the working capital requirements. As such, there is no ideal working capital turnover ratio. It is said that more the ratio more will be the solvency and operational efficiency of an enterprise.

Table No 3 Showing the Working Capital of the Second Company dealing in silk business

(Rupees in Crores)

Particulars	2013	2014	2015	2016	
Current Assets	14.90	15.70	17.40	19.40	
Current Liabilities	2.02	2.36	5.00	7.73	
Working Capital	12.88	13.34	12.40	11.67	

FINANCIAL EFFICIENCY AND PROGRESS

It is determined by preparing Comparative Statements of two periods considered for the study.

Comparative Balance Sheet of the Second Company dealing with silk business

			(Rupees in C	Crores)	
Particulars	2015	2016	Increase/Decrease	%	
LIABILITIES:					
Capital	20.00	21.00	+1.00	+5	
Reserve Fund	0.29	1.05	+0.760	+262	
Debentures	5.95	5.06	89	-15	
Loans from Bank	4.00	5.00	+1.00	+25	
Current Liabilities	5.00	7.73	+2.73	+54.6	
TOTAL	35.24	39.84	+4.60	13	
ASSETS:			K /		
Fixed Assets	17.84	20.44	+2.60	+15	
Current Assets	17.40	19.40	+2.00	+11	
TOTAL	35.24	39.84	+4.60	13	

Under this method the financial statements of the two periods are compared in order to derive significant change in the financial and profitability position of the concern. It denotes the changes that is, the increase or decrease in the financial figures in terms of money value and as well as in terms of percentages.

Just by comparing the current year financial statement with the one previous year financial statement may not be sufficient to understand the true and fair financial efficiency and progress of the concern. In order to ensure effective and proper analysis and interpretation, it is expected to compare the figures of two or more preceding years with the current year. That means, for proper analysis and interpretation, the comparative financial statements have to be prepared with the figures of two or more preceding years. It will bring out the trend change in the financial position as well as the profitability position of the concern.

TOOLS FOR DECISION MAKING

In Common-Size Balance Sheet analysis, the data or figures presented in the financial statements are converted into percentages, taking some common base. The total of assets or liabilities and capital is taken as 100% and all the items in the balance sheet are expressed as a percentage of this total. It enables to understand the structure of the financial position constituting the total assets and liabilities of the concern.

In Balance Sheet analysis, trend analysis also play an important role as a tool for decision making. Statement of trend analysis helps in many managerial decisions. It enables to find out the growth or decline percentage or the pattern of changes that are taking place in an Organisation. It enables managers to take necessary measures to curb the unhealthy trend in the organizations. It is also useful to investors, bankers and creditors to make effective financial decisions on the company.

Ratio is considered as one of the effective tool of balance sheet analysis. It facilitates for interpretation of the profitability and solvency position of a concern. Financial statements independently cannot serve the purpose of the needy people like creditors, bankers, investors and others. So the concept of ratio is more important in the modern financial transactions and managerial decisions. Ratio analysis is the technique of the computation of number of accounting ratios from the data derived from the financial statements and comparing those with the ideal or standard ratios of previous year or the ratios of other similar concerns so as to ascertain the financial soundness of the concern.

Common Size Balance Sheet of the Second Company dealing in silk business

(Rupees in Crores)

Particulars	2015	%	2016	%
LIABILITIES:				
Capital	20.00	57	21.00	53
Reserve Fund	0.29	1	1.05	2
Debentures	5.95	17	5.06	13
Long Term Loans from Banks	4.00	11	5.00	13
Current Liabilities	5.00	14	7.73	19
TOTAL	35.24	100	39.84	100
ASSETS:				
Buildings	5.00	14	7.00	18
Machinery	10.84	31	11.14	28
Furniture	0.90	2	1.00	2
Office Equipment	1.10	3	1.30	3
Inventory	9.50	27	10.20	26
Debtors	5.50	16	6.65	17
Bills Receivable	1.60	5	1.70	4
Cash at Bank	0.80	2	0.85	2
TOTAL	35.24	100	39.84	100

The following ratios help in the Balance Sheet Analysis:

Liquidity Ratio

Current Ratio = Current Assets/Current Liabilities

Quick Ratio = Quick Assets/Current Liabilities

Absolute Liquid Ratio = Absolute Liquid Assets/Quick Liabilities.

Capital Structure Ratio

Debt Equity Ratio = Debt/Equity

Networth Ratio = Networth/Total Assets

Fixed Assets to Networth Ratio = Net Fixed Assets/Networth

Current Assets to Networth Ratio = Current Assets/Networth

Capital Gearing Ratio = Dividend bearing securities/Equity Fund

Solvency Ratio = Total Assets/Total Liabilities.

Activity Ratio

Stock Turnover Ratio = Cost of Goods Sold/Average Stock

Debtors Turnover Ratio = Credit Sales/Average Debtors

Creditors Turnover Ratio = Credit Purchases/Average Creditors

Working Capital Turnover Ratio = Net Sales/Working Capital

Fixed Assets Turnover Ratio = Net Sales/Fixed Assets

Current Assets Turnover Ratio = Net Sales/Current Assets

Others

Price Earning Ratio = Market Price Per Equity Share/Earning per Equity Share

Earning Per Share Ratio = Earning available to Equity Shareholders/Number of Equity Shares.

FINDINGS

FIRST COMPANY DEALING WITH COMPUTER BUSINESS:

- ➤ It is found from the study that there is increase in capital by 5% and there is considerable increase in reserve fund which is a good sign.
- The debentures are reduced by 15% and the loan from banks are increase to 25%.
- ➤ Investments in Fixed Assets are greater when compared to Current Assets.
- ➤ The Current Ratio in 2013 is 7.37 which is too high and it is stabilized to 2.5 in 2016. The ideal current ratio is 2:1.
- ➤ It is found from the analysis that the current assets and current liabilities have increased from 2013 to 2016 in a consistent manner and there is adequate working capital available for meeting the short term expenses of the company.
- The long term funds which are procured are used for the investment in fixed assets.
- ➤ Debtors have increased which implies there is considerable increase in sales and the overall turnover of the company is favourable.
- ➤ It is found that overall the company is financially sound.

SECOND COMPANY DEALING WITH SILK BUSINESS

- ➤ The ideal Current Ratio is 2:1. In 2015 the current ratio is 2.23, it has dropped down to 1.05 in 2016. The liquidity position of the company has to be improved.
- > It is found that there is a tremendous increase in the investment in current assets and liabilities.
- ➤ The working capital is dropped in 2016. Adequate arrangement of funds to meet working capital requirements has to be made.
- ➤ The standard fixed asset ratio is 0.67. This shows that capital employed has been used more in purchasing the fixed assets for the concern.
- ➤ The standard debt equity ratio is 2:1. The increase in equity is slower than outside borrowings. This implies the borrowings from outside has increased over the period.
- Investment in fixed assets is low. But it is greater in current assets. Precaution to be taken not to increase current assets unduly as it may increase the maintenance and other operating costs.

CONCLUSION

A Balance Sheet depicts the financial position of the concern on a given date. To understand the financial position one should have accounting knowledge. Many accounting statements on the apparent look do not reveal the actual solvency or profitability position of the concern. For instance the profitability of the concern cannot just be understood by looking at the net profit. It will be more meaningful if it is said in relation to the sales or capital employed in terms of percentages. Similarly operating expenses when it is expressed in relation to sales it gives more clarity for making decisions like cost control. Hence Balance Sheet independently cannot serve the purpose of the needy people like creditors, bankers, investors etc. So the concept of ratio analysis in balance sheet analysis is more important in the modern financial transactions and managerial decisions.

The Balance Sheets of the two companies for the study has been analysed by using two or more of the following methods like comparative financial statement analysis, common-size statement analysis, trend analysis and ratio analysis. With the help of these, the balance sheet analysis helps in determining the short term as well as the long term solvency position of a business concern. The balance sheet is also known as the statement of financial condition. It portrays the health of the companies and shows the constituents of the assets and liabilities of the business concern. The three components of the balance sheet- assets, liabilities and equity tells the investors a lot about a company's fundamentals.

The Balance Sheet Analysis, thus facilitates for the effective controlling of the operations so as to optimize the return on investments. It enables to find out the growth or decline percentage or the pattern of changes that are taking place in an Organisation. It is also helpful to investors, bankers and creditors to take prudent financial decisions about the company.

RECOMMENDATIONS

FIRST COMPANY DEALING IN COMPUTERS:

- ➤ It is recommended that the company should take necessary steps to increase the quick assets of the concern.
- ➤ It is recommended that the company should change the policy of maintaining the current ratio.
- ➤ The Standard Absolute Liquidity Ratio is 1:2. So it is suggested that the company should increase its absolute liquid assets as the ratio is very low.

- ➤ It is suggested that the company should follow the same policy of working capital turnover ratio. The increase in capital turnover ratio indicates that the lower in the investments in working capital, greater are the profits.
- ➤ It is recommended that the company should increase its current assets turnover ratio. This will increase the operational efficiency.
- ➤ The fixed assets ratio is below standard in all the years. So the company should use less capital in purchasing the fixed asset for the concern.
- ➤ There is more investments made for inventories. It is suggested that the company should take necessary steps to reduce its inventories.
- ➤ It is noticed that proprietary ratio is too low in all the years. So the necessary steps should be taken to increase its shareholders funds.

SECOND COMPANY DEALING IN SILK BUSINESS:

- ➤ The current assets have increased over a period of time. Thus the working capital management policy is sound. But it is recommended that too much of investment in current assets should not be made as it will lead to blockage of funds.
- ➤ Both the current assets and current liabilities of the company have increased. It is almost nearer to the ideal ratio. Thus, it is recommended that the current ratio should be maintained at the same level in the future also.
- The fixed assets ratio has increased. The increase in the shareholders funds are utilised in the investments in fixed assets. Thus long term stability is ensured. Thus the financial policy recommended is sound.
- It is recommended that the average collection period from debtors should be sound. Too much of delay in recovery should be avoided.
- The total assets turnover ratio has increased. It is recommended that investment in fixed assets and current assets should be made proportionately for the productive purpose of the company.

LIMITATIONS OF THE STUDY AND SCOPE FOR FURTHER RESEARCH

The annual reports of the companies are obtained for the period 2013-2016. The Study is limited to four years, fluctuations after this time period are not analysed. The framework process and objectives vary among companies selected for study. The present study is strongly based on the secondary data and is confined to only two companies who carry on different nature of business. Future researchers can conduct a comparative study on two companies carrying on the similar nature of business.

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