

FINANCIAL PERFORMANCE ANALYSIS: MEASURES AND TECHNIQUES

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Abstract: *The aim of this study was to investigate the use of variety of financial and non-financial performance measures identified in performance measurement systems literature. Financial measures are intended to help managers to analyze their organisation activities from a financial standpoint and provide useful information needed to make good management decisions. By themselves, the financial measures discussed don't provide answers—they need to be reviewed in relation to each other and to other companies and non-companies activities. It is not possible to control or predict all of the factors that influence the final outcome of any decision. Nor is it possible to have available all of the information that would be ideal. But decision making can be improved through using available information and through effective financial planning and analysis.*

Key Words: *Performance measurement diversity, financial analysis, satisfaction of performance measurement system.*

1. INTRODUCTION OF FINANCIAL PERFORMANCE:

The essence of managing risk is making good decisions. Correct decision making depends on accurate information and proper analysis. This article discusses common financial information and performance measures frequently used by companies to evaluate company financial health and make risk management decisions. By conducting regular checkups on financial condition and performance, managers are more likely to treat causes rather than address only symptoms of problems.

Furthermore, the results using structural equation modeling indicate that performance measurement diversity is associated with the satisfaction of performance measurement system. These outcomes show that companies benefit from performance measurement systems that incorporate a wide range of financial and non-financial performance measures.

2. PERFORMANCE MEASUREMENT SYSTEM:

Finally, this study has verified further research opportunities that could enrich the understanding of performance measurement systems Following-

Financial Statements

Financial statements help assess the financial well-being of the overall organisation. Information about the financial results of each enterprise and physical asset is important for enterprise management decisions, but by themselves are inadequate for certain decisions because they do not describe the whole business. An understanding of the managers overall financial situation and enterprise relationships requires three key financial documents: the balance sheet, the income statement and the cash flow statement.

The **Balance Sheet** shows the financial position (condition) of the firm at a given point of time. It provides a snapshot and may be regarded as a static picture. "Balance sheet is a summary of a firm's financial position on a given date that shows $\text{Total assets} = \text{Total liabilities} + \text{Owner's equity}$."

The **income statement** (referred to in India as the profit and loss statement) reflects the performance of the firm over a period of time.

"Income statement is a summary of a firm's revenues and expenses over a specified period, ending with net income or loss for the period."

A **cash flow statement** reports the sources and uses of the firm's cash resources. Such statements not only show the change in the firm's cash resources throughout the year, but also when the cash was received or spent. An understanding of the timing of cash receipts and expenditures is critical in managing the whole-firm. Neither an income tax return nor an income statement provides the same information as a cash flow statement. Because cash flow analysis is only concerned with covering cash expenses, it is important to remember long-term survivability depends on covering important non-cash needs.

3. TECHNIQUES/TOOLS OF FINANCIAL PERFORMANCE ANALYSIS:

An analysis of financial performance can be possible through the use of one or more tools / techniques of financial analysis:

3.1 ACCOUNTING TECHNIQUES

It is also known as financial techniques. Various accounting techniques such as Comparative Financial Analysis, Common-size Financial Analysis, Trend Analysis, Fund Flow Analysis, Cash Flow Analysis, CVP Analysis, Ratio Analysis, Value Added Analysis etc. may be used for the purpose of financial analysis. Some of the important techniques which are suitable for the financial analysis of GSRTC are discussed hereunder:

Ratio Analysis

In order to evaluate financial condition and performance of a firm, the financial analyst needs certain tools to be applied on various financial aspects. One of the widely used and powerful tools is ratio or index. Ratios express the numerical relationship between two or more things. This relationship can be expressed as percentages (25% of revenue), fraction (one-fourth of revenue), or proportion of numbers (1:4). Accounting ratios are used to describe significant relationships, which exist between figures shown on a balance sheet, in a profit and loss account, in a budgetary control system or in any other part of the accounting organization. Ratio analysis plays an important role in determining the financial strengths and weaknesses of a company relative to that of other companies in the same industry. The analysis also reveals whether the company's financial position has been improving or deteriorating over time. Ratios can be classified into four broad groups on the basis of items used: (1) Liquidity Ratio, (ii) Capital Structure/Leverage Ratios, (iii) Profitability Ratios, and (iv) Activity Ratios.

Common-Size Financial Analysis

Common-size statement is also known as component percentage statement or vertical statement. In this technique net revenue, total assets or total liabilities is taken as 100 per cent and the percentage of individual items are calculated like wise. It highlights the relative change in each group of expenses, assets and liabilities.

Trend Analysis

Trend analysis indicates changes in an item or a group of items over a period of time and helps to draw the conclusion regarding the changes in data. In this technique, a base year is chosen and the amount of item for that year is Conceptual Framework taken as one hundred for that year. On the basis of that the index numbers for other years are calculated. It shows the direction in which concern is going.

3.2 STATISTICAL TECHNIQUES

Every analysis does involve the use of various statistical techniques. Some of the important statistical techniques which are suitable for the financial analysis of GSRTC are discussed herein:

Measures of Central Tendency

Measures of central tendency are also known as statistical averages. It is the single value which represents the whole series and is contain its measure characteristics. The main objective is to give a brief picture of a large group, which it represents, and to give a basis of comparison with other groups. Arithmetic mean, median, mode, geometric mean and harmonic mean are the main measures of tendency. Mean, also known as arithmetic average, is the most common measure of central tendency. It is defined as the value which obtained by dividing the total of the values of various given items in a series by the total number of items. It can be figured as:

Mean (X) = $\frac{\sum X}{n}$

$X_1 + X_2 + \dots + X_n$

Measures of Dispersion

Average is the central value which represents the entire series but it fails to give any idea about the scatter of the values of items of a series around the true value of average. In order to measure this scatter, measures of dispersion are calculated. Measures of dispersion, indicates the extent, to which the individual values fall away from the average or

the central value. Range, mean deviation and standard deviation are the important measures of dispersion. These measures can be stated in two ways. One method of statements shows the absolute amount of deviation, while the other presents the relative Conceptual Framework amount of deviation. For purpose of comparison, the absolute amount of a measurement is not always as valuable as an expression of the relative amount. The measures of dispersion, which are expressed in terms of the original units of a series, are termed as 'absolute measure'. Relative measures of dispersion are obtained as ratios or percentages known as 'coefficient' which are pure numbers independent of measurement. "Percentages of variation are known as co-efficient of dispersion or co-efficient of variation.

Financial Performance Measures

. The recommended measures for financial analysis are grouped into five broad categories: liquidity, solvency, profitability, repayment capacity and financial efficiency. These standard performance measures are discussed below and their formulas are as follows :

- **Liquidity** measures the ability of the business to meet financial obligations as they come due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural liquidity refers to balance sheet measures of the relationships between assets and liabilities and operational liquidity refers to cash flow measures. A frequent cause of liquidity problems occurs when debt maturities are not matched with the rate at which the business' assets are converted to cash.

Working capital is a measure of the amount of funds available to purchase inputs and inventory items after the sale of current farm assets and payment of all current farm liabilities. Working capital is expressed in absolute dollars; therefore, determining adequate working capital is related to the size of the companies operation.

- **Solvency** measures the amount of borrowed capital used by the business relative the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all of the assets were sold. Solvency measures also provide an indication of the business' ability to withstand risks by providing information about the farm's ability to continue operating after a major financial adversity.

Unlike liquidity, solvency is concerned with long-term as well as short-term assets and liabilities. Solvency measures evaluate what would happen if all assets were sold and converted into cash and all liabilities were paid. The measure of solvency is owner equity, using the market value of assets and including deferred taxes in the liabilities. As with working capital, adequacy of equity depends on business size, making comparisons difficult without using ratios

Three widely used financial ratios to measure solvency are the *debt-to-asset ratio*, the *equity-to-asset ratio* (sometimes referred to as percent ownership) and the *debt-to-equity ratio* (sometimes referred to as the leverage ratio). These three solvency ratios provide equivalent information, so the best choice is strictly a matter of personal preference. The *debt-to-asset ratio* expresses total farm liabilities as a proportion of total farm assets. The higher the ratio, the greater the risk exposure of the farm. The *equity-to-asset ratio* expresses the proportion of total assets financed by the owner's equity. The *debt-to-equity ratio* reflects the capital structure of the farm and the extent to which farm debt capital is being combined with farm equity capital. It is a measure of the degree to which a farmer is leveraging his equity.

- **Profitability** measures the extent to which a business generates a profit from the factors of production: labor, management and capital. Profitability analysis focuses on the relationship between revenues and expenses and on the level of profits relative to the size of investment in the business.

Four useful measures of profitability are the *rate of return on assets (ROA)*, the *rate of return on equity (ROE)*, *operating profit margin* and *net income*. The ROA measures the return to all assets and is often used as an overall index of profitability, and the higher the value, the more profitable the business. The ROE measures the rate of return on the owner's equity employed in the business.

The operating profit margin focuses on the per unit produced component of earning profit and the asset turnover ratio (discussed below) focuses on the volume of production component of earning a profit.

Net income comes directly off of the income statement and is calculated by matching revenues with the expenses incurred to create those revenues, plus the gain or loss on the sale of capital assets. Net income represents the return to the firms for unpaid operator and family labor, management and owner's equity.

- **Repayment capacity** measures the ability to repay debt from both farm and non-farm income. It evaluates the capacity of the business to service additional debt or to invest in additional capital after

meeting all other cash commitments. Measures of repayment capacity are developed around an accrual net income figure.

Two measures of repayment capacity are the *term debt and capital lease coverage ratio* and the *capital replacement and term debt repayment margin*. The *term debt and capital lease coverage ratio* provides a measure of the ability of a borrower to cover all required term debt and capital lease payments. The higher the ratio is over 1:1, the greater the margin to cover the payments. Higher ratio values also indicate greater flexibility on the part of the farmer to withstand and adjust to temporary adverse economic conditions. Even though the farm may be generating sufficient accrual earnings to cover all term debt and capital lease payments, there may not be sufficient cash to make the payments on a timely basis; thus cash flow analysis is needed as well.

The *capital replacement and term debt repayment margin* is used to evaluate the ability of the borrower to generate funds needed to service existing term debts and replace capital assets. It also enables users to evaluate the ability to acquire additional capital, service additional term debt and to evaluate the risk margin.

Financial efficiency measures the degree of efficiency in using labor, management and capital. Efficiency analysis deals with the relationships between inputs and outputs. Because inputs can be measured in both physical and financial terms, a large number of efficiency measures in addition to financial measures are usually possible.

Five measures of financial efficiency are *the asset turnover ratio, operating expense ratio, depreciation expense ratio, interest expense ratio* and *net farm income from operations ratio*. The *asset turnover ratio* measures how efficiently farm assets are being used to generate revenue. The higher the ratio, the more efficiently assets are being used to generate revenue.

The last four efficiency measures are operating ratios accounting for the composition of gross revenues.

4. SUMMARY:

financial statements do not reveal all the information related to the financial operations of a firm, but they furnish some extremely useful information, which highlights two important factors profitability and financial soundness. Thus analysis of financial statements is an important aid to financial performance analysis. Financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the business. "The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm's position and performance." The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account.

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