

A STUDY ON ANALYSIS OF FINANCIAL STATEMENT ANALYSIS

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ABSTRACT: This research analyzes and forecasts the economy and business climate of the future. The study analyzes the financial statement and equips the company's financial management to make smart choices. In order to assess a company, financial statements employ appropriate resources, analytical approaches, and tactics. Management's financial, investment, and operational choices can be evaluated with this test. Financial records and the annual report reveal a lot about a company's health to managers, owners, investors, and anybody else with a stake. Company health is evaluated and shareholder investment returns are communicated through financial reports, which are used by management. Before putting money into a company, investors look at the books.

Keywords: financial analysis, financial reports, decision-making, profitability, liquidity

1. INTRODUCTION

In order to make conclusions, financial analysis compares the company's performance to that of similar businesses and the overall economy. Experts in finance are frequently called upon to assess the debt and equity instruments, as well as other capital issues, of a company. A potential investor in a debt instrument will take the issuer's track record of making interest and principal payments on time into consideration. As owners, buyers of equity securities are interested in things like dividends and price appreciation.

A firm's ability to generate sufficient cash flow to meet its financial obligations, invest in promising new opportunities, and generate a return on capital in excess of its cost of capital is the primary focus of financial analysis.

For even the most fundamental financial analysis, financial statements are essential. These financial reports contain the audited financial statements as well as regulatory disclosures and management comments (which are not audited). This article serves as a guide for analysts as they examine financial statements and other data.

Uses of financial analysis:

Financial analysis is useful for strategic planning, resource allocation, and executive performance review. Technological advancements have made financial analysis more accessible to managers of economic units, allowing them to better forecast the future and assess the financial health of their organizations. If payments and charitable donations are viable, analysts can factor in interest rate risk and foreign currency exchange rates.

2. LITERATURE REVIEW

Financial report An analysis highlights the company's financial and operational strengths and weaknesses, making it easier to evaluate (Nuhu, 2014). Several parties benefit from financial statements' capacity to clearly convey information utilizing many methods, processes, and data (Hermanson et al., 1992). Reviewing, interpreting, and analyzing a company's financial accounts helps predict stakeholders' financial health (Choate, 1974).

Choate (1974) recommends regular financial data analysis to inform shareholders of corporate performance changes. Financial statement analysis examines size, comparability, trend, and ratio (Laitinen, 2002). Ratio analysis, one of the four most used approaches to examine financial statements, delivers the most information. Income statement ratios show the proportions of two numbers (Igben, 1999).

Lasher (1997) says ratio analysis deciphers financial statement data. Reports show earnings manipulation. Accounting and auditing has come a long way from its origins among financial record students, yet it is still not failsafe (Bhavani et al., 2018).

In 2012, the ACFE defined three corporate fraud types. Corruption includes bribery, financial manipulation, and theft. Financial mismanagement should be detected and prevented by a company's audit committee, board, and higher management. Internal controls and monitoring reduce financial statement fraud. Science proves (Amoa-gyarteng, 2014).

Forensic accountants analyze financial data using special equipment. Such approaches use ratio analysis. Academic ratios like M-Score, Z-Score, F-Score, and Benford's law reveal earnings manipulation.

Al-Aameri and Alrikabi (2007) assessed a petroleum projects business using financial ratios, a key financial research tool. This analysis revealed the company's weaknesses and offered ways to highlight its strengths. The report analyzes the company's financial statements to assess performance and provide guidance. Financial statements can examine this data.

Maggina (2008) empirically examined financial ratios' statistical features. Comparing Cauchy, chi-square, Erlang, exponential, extreme value, Gamma, Laplace, logistic, lognormal, Student t, triangular, uniform, and Weibull distributions. None of the financial ratios for Greek listed firms from 1974 to 2006 reflect a normal distribution. Kolmogorov-Smirnov test statistic is big, but probability is less than 1%. This contradicts earlier studies.

Malhotra et al. examined financial market credit crisis reasons (2009). Their findings startled financial services. Financial services firms lost cash and earnings. Thirteen significant financial service firms compared budgets. Data envelopment analysis compares 13 financial service companies' ratios (DEA). DEA may immediately identify where underperforming organizations can improve.

Pazarskis et al. examine the long-term profitability of Greek enterprises after mergers and acquisitions (2011). Accounting data can examine some acquiring listed firms' post-merger success. Twenty-four financial variables in five key sectors assess mergers. Six ratios declined, showing that the combined companies were less effective.

Klç explored why Turkish public corporations reveal financial ratios (2012). List of Istanbul Stock Exchange manufacturers. Websites provided annual reports. Textual study assessed companies' major financial ratio disclosure. Turkish stock exchange-traded companies' median annual financial ratio is 5.37. Count data regression models tested hypotheses (Poisson and Negative binomial). Multivariate models reveal a positive association between a firm's size, the auditor's size, the company's profitability, and ownership dispersion, but not leverage, in voluntary financial ratio disclosure. These evaluations ignore Baghdad's soft-drink sector. Many more studies supported this one's theory.

FSA study improves fundamental analysis and identifies market inefficiencies using financial statement data (Yohn 2020). Without fundamental research, firm valuations and profit estimates are inaccurate. Security equities analysts and quantitative funds use company and stock features to construct hedging strategies to beat the market.

3. INCOME STATEMENT ANALYSIS

The income statement is one of the most essential and frequently encountered financial statements.

Income statements are a type of financial statement that itemizes a company's revenues, expenses, and net profit or loss for a given accounting period. Income statements are typically included in quarterly and annual reports, allowing investors to see financial patterns and comparisons over time.

PURPOSE OF AN INCOME STATEMENT

- A company's financial performance during a certain time period is summarized in an income statement. It's a way for businesses to keep track of their day-to-day financial gains and losses. An income statement details all revenue and expenditures during a certain time frame. Accountants can put together revenue statements by comparing trial balances from two time periods.
- A company's income statement and other financial documents like its cash flow statement, balance sheet, and annual report can tell you whether or not it is profitable, whether or not it is overspending, when costs are highest and lowest, how much it costs to produce its product, and whether or not it has cash to reinvest.
- Accountants, investors, and business owners commonly examine income statements to see how well a firm is doing relative to its expected future performance. The CEO of a corporation may opt to alter strategies for the following quarter if quarterly goals are not attained. Investors may also decide to sell their shares and reinvest in a company if it is successful in meeting or exceeding its goals.

AN INCOME STATEMENT

- **Revenue:** The amount of money a business takes in during a reporting period
- **Expenses:** The amount of money a business spends during a reporting period
- **Costs of goods sold (COGS):** The cost of component parts of what it takes to make whatever it is a business sells
- **Gross profit:** Total revenue less COGS
- **Operating income:** Gross profit less operating expenses
- **Income before taxes:** Operating income less non-operating expenses
- **Net income:** Income before taxes less taxes
- **Earnings per share (EPS):** Division of net income by the total number of outstanding shares
- **Depreciation:** The extent to which assets (for example, aging equipment) have lost value over time
- **EBITDA:** Earnings before interest, depreciation, taxes, and amortization

TYPES OF INCOME STATEMENT ANALYSIS

The financial documents of a company can be read and understood using one of two common methods: vertical analysis or horizontal analysis. What differentiates the various analytic approaches is the way in which a statement is interpreted and the conclusions taken from that interpretation.

Vertical Analysis

If each line item on a financial statement is expressed as a percentage of the total, a vertical analysis of the statement is possible. This means that the line items on income statements communicate themselves as a percentage of gross sales rather than a particular dollar figure.

To put it succinctly, it's the process of deducing meaning from a financial statement by scrutinizing one section of data at a time (e.g., showing the relative size of different expenses, as line items may be listed as a percentage of operating expenses).

This method of analysis allows for the easy comparison of financial statements across different time periods, industries, and businesses because relative proportions are clearly displayed. It can also be used to check on the development of key performance indicators.

Horizontal Analysis

Horizontal analysis compares financial statements over a longer time period and looks at the dollar amounts as they change, while vertical analysis compares each line item to the total for the current period. It is frequently expressed as a percentage but can also be used for absolute comparisons.

By using horizontal analysis, organizations can ensure that their financial data and reporting are consistent and in line with GAAP (GAAP). It's useful for looking at how a company has changed over time and how it stacks up against competitors.

NET SALES	\$ 4,358,100
COST OF SALES	2,738,714
GROSS PROFIT	1,619,386
SELLING AND OPERATING EXPENSES	560,430
GENERAL AND ADMINISTRATIVE EXPENSES	293,729
TOTAL OPERATING EXPENSES	854,159
OPERATING INCOME	765,227
OTHER INCOME	960
GAIN (LOSS) ON FINANCIAL INSTRUMENTS	5,513
(LOSS) GAIN ON FOREIGN CURRENCY	(12,649)
INTEREST EXPENSE	(18,177)
INCOME BEFORE TAXES	740,874
INCOME TAX EXPENSE	257,642
NET INCOME	\$ 483,232

4. FINANCIAL RATIOS

To better understand a corporation, financial ratios are calculated using data found in financial statements. A company's liquidity, leverage, growth, margins, profitability, rates of return, valuation, and more may all be determined by analyzing the statistics presented in the balance sheet, income statement, and cash flow statement.

There are several broad classifications for financial ratios:

- **Liquidity ratios**
- **Leverage ratios**
- **Efficiency ratios**
- **Profitability ratios**
- **Market value ratios**

Uses and Users of Financial Ratio Analysis

There are two main uses for the study of financial ratios:

1. Track company performance

The purpose of calculating and monitoring the evolution of a company's financial ratios over time is to identify emerging patterns. For instance, if a company's debt-to-asset ratio keeps rising, that could mean it's taking on too much debt and could put it at risk of default.

2. Make comparative judgments regarding company performance

If you want to know if your firm is doing better or worse than the average in its industry, compare its financial ratios to those of its big competitors. A comparison of return on assets between companies, for instance, can show an analyst or investor which company is making the best use of its resources.

Financial ratios have a wide variety of audiences, both inside and outside the organization:

- **External users:** Investors, analysts, creditors, competitors, tax officials, regulators, and onlookers in the financial sector and the business as a whole.
- **Internal users:** Staff, owners, and management

LIQUIDITY RATIOS

Short-term cash flow and long-term debt service coverage are two measures of a company's liquidity. The following are examples of typical liquidity ratios:

A company's ability to meet its short-term obligations by using its current assets is quantified by the current ratio.

$$\text{Current ratio} = \text{Current assets} / \text{Current liabilities}$$

The quick ratio is used to evaluate a company's liquidity and solvency.

$$\text{Acid-test ratio} = \text{Current assets} - \text{Inventories} / \text{Current liabilities}$$

The cash ratio reflects a company's liquidity by comparing its cash and cash equivalents to its short-term debts.

$$\text{Cash ratio} = \text{Cash and Cash equivalents} / \text{Current Liabilities}$$

The operating cash flow ratio indicates how many times a company's current liabilities may be covered by its operating cash flow over a certain time period.

$$\text{Operating cash flow ratio} = \text{Operating cash flow} / \text{Current liabilities}$$

LEVERAGE FINANCIAL RATIOS

Leverage ratios quantify the proportion of total capital that is borrowed. Simply said, the debt levels of a corporation can be measured using leverage financial ratios. Among the most often used leverage ratios are: A company's reliance on debt to fund its operations is quantified by the debt ratio.

$$\text{Debt ratio} = \text{Total liabilities} / \text{Total assets}$$

All debt and financial liabilities are weighed against shareholders' equity to get the debt to equity ratio.

$$\text{Debt to equity ratio} = \text{Total liabilities} / \text{Shareholder's equity}$$

The interest coverage ratio reveals how comfortably a business can meet its interest obligations.

$$\text{Interest coverage ratio} = \text{Operating income} / \text{Interest expenses}$$

How readily a corporation can meet its debt commitments can be gauged by looking at the debt service coverage ratio.

$$\text{Debt service coverage ratio} = \text{Operating income} / \text{Total debt service}$$

EFFICIENCY RATIOS

Measure the effectiveness of a company's utilization of its resources with efficiency ratios (or "activity financial ratios"). Typical examples of efficiency ratios are:

The asset turnover ratio evaluates a firm's capacity to turn its assets into revenue.

$$\text{Asset turnover ratio} = \text{Net sales} / \text{Average total assets}$$

The inventory turnover ratio tracks the frequency with which an organization sells and replenishes its stock:

$$\text{Inventory turnover ratio} = \text{Cost of goods sold} / \text{Average inventory}$$

How often a corporation is able to convert accounts receivable into cash is indicated by the accounts receivable turnover ratio.

$$\text{Receivables turnover ratio} = \text{Net credit sales} / \text{Average accounts receivable}$$

The days sales in inventory ratio is a common metric used to assess how long on average a business keeps goods on hand before selling them.

$$\text{Days sales in inventory ratio} = 365 \text{ days} / \text{Inventory turnover ratio}$$

PROFITABILITY RATIOS

Profitability ratios compare a company's income, assets, expenses, and equity to determine its profitability. The following are examples of popular financial ratios used to assess profit:

Gross margin is the percentage of revenue left over after subtracting the cost of goods sold from total revenue.

$$\text{Gross margin ratio} = \text{Gross profit} / \text{Net sales}$$

To gauge operational efficacy, businesses use a metric called the operating margin ratio, also known as the return on sales ratio.

$$\text{Operating margin ratio} = \text{Operating income} / \text{Net sales}$$

How effectively an organization turns its assets into cash is quantified by the return on assets ratio

$$\text{Return on assets ratio} = \text{Net income} / \text{Total assets}$$

A company's profitability can be evaluated by calculating its return on equity ratio.

$$\text{Return on equity ratio} = \text{Net income} / \text{Shareholder's equity}$$

MARKET VALUE RATIOS

The stock price of a company can be analyzed using market value ratios. The following are examples of market value ratios:

The book value per share ratio is a method for determining a company's per-share worth in relation to its shareholders' equity.

$$\text{Book value per share ratio} = (\text{Shareholder's equity} - \text{Preferred equity}) / \text{Total common shares outstanding}$$

Dividend yield is a ratio calculated by dividing the annual dividend payout by the stock price.

$$\text{Dividend yield ratio} = \text{Dividend per share} / \text{Share price}$$

Earnings per share is a measure of a company's profitability relative to the number of shares it has issued.

$$\text{Earnings per share ratio} = \text{Net earnings} / \text{Total shares outstanding}$$

A company's share price is compared to its earnings per share using the price-earnings ratio.

$$\text{Price-earnings ratio} = \text{Share price} / \text{Earnings per share}$$

5. CASH FLOW STATEMENT ANALYSIS

One of the three major financial statements is the cash flow statement, sometimes known as the statement of cash flows. Cash flows in and out over a certain time frame are outlined in the cash flow statement (e.g., a month, quarter, or year). The cash inflows and outflows for the reporting period are broken down in the statement of cash flows, which acts as a link between the income statement and balance sheet.

Cash Flow Statement Sections

In this post, we'll examine the components of a cash flow statement and how they work together. Although exact line items may differ from firm to company, the overall structure is consistent.



1. Operating cash flow

During regular commercial operations, the company generates the vast majority of its income. The inflow and outflow of money in a business is often affected by revenue and expenditures.

The choice as to whether operating cash flow is shown directly or indirectly rests with the chief financial officer of the company.

Direct presentation:

Sales revenue, operating expenses, and other related financial outputs and inflows are all components of operating cash flows. This is an uncommon approach since the indirect approach is more popular.

Indirect presentation:

Profits and cash inflows are balanced through operating cash flows. Let's pretend for the moment that we're employing a covert tactic.

Operating cash flow contains non-cash items and other adjustments to reconcile profit with cash flow, thus the numbers may not add up to the total amount of cash flows displayed.

Plus: depreciation and amortization (D&A)

The value of an asset depreciates as it is used by a business. So, during an asset's useful life, depreciation and amortization are expenses that lower a company's taxable revenue. Tangible assets like patents, copyrights, goodwill, and software are depreciated while tangible assets like buildings and machinery are amortized over their useful lifespan. The income statement will show a decrease in net income due to D&A. These costs should be reported as cash inflows rather than cash outflows in the income statement for consistency's sake. In other words, no actual money is being traded.

Plus/(less): changes in working capital

Working capital is defined as a company's current asset value minus its current liability value. It's important to note that operating cash flow is affected by shifts in both current assets (other than cash) and current liabilities (other than debt).

One way in which a company's existing assets could rise is through an increase in inventory. Increases in inventory must be deducted from earnings because they represent a negative cash outflow. The same issues exist with receivables. The company would benefit from an increase in sales made on credit. Because no money changed hands when the revenue was recorded, any growth in accounts receivable reduces net income.

An rise in accounts payable or other current obligations is the inverse of a cash outflow. This is because the corporation has yet to pay off a credit-based purchase. The result demonstrates this gain (a decrease would be subtracted).

2. Investing cash flow

Buying and selling long-term assets and other investments both contribute to cash flow from investing operations. The term "investment capital" refers to the funds that are used to trade in and out of fixed assets like PP&E, non-current assets, and financial assets.

(Less): investments in PP&E

Capital expenditures are monetary outlays used to acquire physical assets such as buildings, machines, and other equipment (CapEx). Capital expenditures (CapEx) can range from buying property and constructing a facility to house the company's activities and logistics to just buying more computers and printers to accommodate an increase in headcount. The company can't function without these essential components. These expenditures reduce available funds, thus they must be deducted from the total before the net cash flow gain can be determined. The methodology for estimating a project's capital outlay is shown below (CapEx).

3. Financing cash flow

The capital structure of a corporation has an impact on its cash flow. Loans, bonds, the sale and repurchase of existing stock, and other similar transactions are all viable options for financing cash flows. Capital can also be distributed to shareholders in the form of dividends.

Issuance (repayment) of debt

In order to keep the wheels of commerce turning, some businesses will issue loans. Loans issued to investors willing to take on the role of lender allow businesses to raise much-needed funds. Yet, paying back these loan investors reduces available funds.

Issuance (repayment) of equity

This is an alternative source of funding for businesses. The issuance of shares of stock is used to raise money. Nevertheless, share repurchases have the opposite effect and lower cash flow. This is achieved by paying shareholders a dividend for their shares.

4. Net increase/(decrease) in cash and closing cash balance

The net gain or reduction in liquidity over the period of analysis is determined by adding the three sections of the cash flow statement together. Along with the beginning cash balance, this is the total cash balance at the conclusion of the term. This number will be reflected in the balance sheet as current assets. Connecting the dots between the first and third financial reports.

Opening cash balance

The end-of-year cash balance is carried over into the new fiscal year. This figure is found in the audited financial statements and cash flow statement from the previous year.

Direct Method:

Operating Activities

Cash received from customers	\$800
Cash paid to suppliers	(150)
Employee compensation	(200)
Other operating expenses paid	(150)
Net cash from operating activities	<u>300</u>

Investing Activities

Sale of land	200
Purchase of equipment	(300)
Net cash from investing activities	<u>(100)</u>

Financing Activities

Common share dividends	(200)
Payment of long-term debt	(300)
Net cash from financing activities	<u>(500)</u>

Net change in cash (300)

Beginning Cash Balance 1,000

Ending Cash Balance 700

Indirect Method:

Operating Activities	
Net Income	\$400
Depreciation & Amortization	150
(Increase)/Decrease in AR	(200)
(Increase)/Decrease in Inventory	(150)
Increase/(Decrease) in AP	100
Net cash from operating activities	300
Investing Activities	
Sale of land	200
Purchase of equipment	(300)
Net cash from investing activities	(100)
Financing Activities	
Common share dividends	(200)
Payment of long-term debt	(300)
Net cash from financing activities	(500)
Net change in cash	(300)
Beginning Cash Balance	1,000
Ending Cash Balance	700

6. CONCLUSION

In order to evaluate the current financial situation and reasonably predict the development trend of an enterprise, it is necessary to analyze financial statements that summarize and analyze the basic financial situation, cash flow, and operating results of the enterprise at a specific period or point in time. The management of a company's finances is essential to its survival. Poor financial management has caused firms to falter while they plan for the future. So, in order to thrive in today's competitive market, businesses must rethink their approaches to financial management and develop a long-term strategic plan.

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