22

CHAPTER 2
THEORETICAL ASPECTS OF THE STUDY AND REVIEW OF LITERATURE

2.1 INTRODUCTION

The Glassline Industry is engaged in manufacturing of specialized Glassline equipment used for reactions of corrosive chemicals by the pharmaceuticals, Agro-based and other chemical Industries. The core element of the Glass line Industry line in the technology for manufacturing of glass frit and its applications.

At present, India has three players in Glassline Reactor Vessels industry viz. GMM Pfaudler Ltd., Swiss Glasscoat Equipment Ltd. and Navbharat India Ltd. Company (NILE)., GMM Pfaudler Company enjoys the leadership position in design, manufacturing and marketing of glassline reactor vessels, storage tanks, valves and pipe & fittings. Swiss Glass Coat Company today stands second biggest supplier in servicing all the end user Indian Pharmaceuticals, Agro-based and chemical Industries.

During the last four years, the sector has continuously strived for achieving cost effectiveness in various areas of operations, quality maintenance which has resulted in profitable gains to the company. The business environment continues to be challenging; however due to the sustainable Government efforts for recovery of a stable economy, this sector grows at firm and steady growth rate and is continuously heading towards upward direction.

Consequent upon progress in pharmaceutical and chemical industries and subsequent increase in orders for the products, Glassline sector with sustainable marketing efforts even in turbulent times witnessed by the Indian economy, Glassline sector have been able to register a profitable performance due to the progress of Pharma, Chemical and other Companies, this sector is also growing in recent year.

While the chemical industry in India grew as a whole at more than 11% in 2011, the Pharmaceutical industry grew by over 18% during the year and it is expected to grow at a CAGR of 15% till 2015. The continued focus on India as a base for bulk drugs, both of a generic nature and increasingly for specialty patent protected drugs and chemicals, the industry is expected to continue its growth momentum in the near term.
With the investments by established companies, both Indian and multi nationals, as well as from new companies, Glassline sector expects to see broadening of its customers base as well as increasing revenues from its existing customers. New markets due to the migration of chemical business into India from the western world continue to be an opportunity for your company’s products. In addition to the inclusion of Maven products Glassline sector has potential for greater share of the customer spend. In addition to the growth in the chemical industry the capitals spend in fertilizer, petrochemical, power, bio technology is expected to offer opportunities for growth.

2.2 NEED AND OBJECTIVES OF FINANCIAL ANALYSIS

Understandably, all active and concerned participants are interested, to a varying extent, in the financial affairs of a business enterprise. After all, financial statements are the blueprints of its financial affairs. For example, to the owners of the enterprise, they reveal its progress as evidenced by earnings and current financial conditions; to the prospective investors they serve as a mirror reflecting a potential investment opportunity; to the creditor, they act as a magic eye highlighting the credit worth, i.e. assurance whether the company will honor obligations as and when they mature.

Besides, that the economist may judge the extent to which the current economic climate has affected the business activity and its financial position. A financial analyst can probe deep into these statements as also into the financial policies pursued by the management and offer constructive suggestions to overcome the financial malady, if any then it is diagnosed. To avoid hostile feelings of the public at large, financial statement at macro level should reflect that there is no undue concentration of economic power in the hands of a few business houses. To the government, financial statements offer a basis of taxation and also an understanding of cost-price-profit behavior including their relationship. Finally, these statements act as a beacon to management for ensuring goal oriented and effective performance of the business enterprise.

Thus, financial statement is prepared and analyzed to communicate useful financial information to interested parties. If this objective is not met out, these statements have no purpose to serve. But a careful analysis and interpretation by the users of financial statements will usually clarify many points pertaining to the performance of an undertaking. Evidently, it is essential that the consumers of these statements too become proficient in the utilization of available analytical techniques.
The purpose of the statement analysis is to establish and present the relationship and trends which enter the data contained in the financial statements. Based upon this analysis, the users will draw their own conclusions and act accordingly. The “American Accounting Association” in its conference in June 1941 observed that:

“Every corporate statement should be based on accounting principles which are sufficiently uniform, objective and well-understood to justify opinions as to the condition and progress of business enterprise. The purpose of periodic financial statement of corporation is to furnish information that is necessary for the formulation of dependable judgments.”

The objective of financial analysis is a detailed cause and effect study of the profitability and financial position. In the opinion of Anthony, the overall objective of a business is to earn a satisfactory return on the funds invested by it, consistent with maintaining a sound financial position. To repeat, much can be learned about the business performance and finance position through careful examination of financial statements. Financial analysis spotlights the significant facts and relationship concerning managerial performance, corporate efficiency, financial strength and weakness as also credit-worthiness that would have otherwise been buried in a heap of detail. Frequently, the technique of analysis is applied to the study of accounting data with a view to determining the continuity of the business, credit ratings and testing the efficiency of operations.

No doubt, it may be valuable to everybody who is interested in the affairs of company to know the answers to the following questions.

(i) Does the company earn adequate profit?
(ii) Does the company possess enough funds to meet the obligations as and when they mature?
(iii) Is investment in the company safe?

The statement analysis alone can meet such queries. It is a fact that statement analysis merely shows what has actually taken place in the past. But past events do give some clues to what can be expected in future. On making a critical evaluation of these answers, sound judgment can be made which is the eventual purpose of financial analysis and which is known as financial appraisal.

The objective of financial evaluation vary to a great extent according to the type of the users. For example, a Manager gets through it a deep insight into the financial conditions
of the enterprise, a view of past performance and a strategic basis for future action. The knowledge derived through the statement analysis and appraisal may be used by the manager as a “Self-evaluation” exercise in planning the business operations. For example, the Return on Capital Employed techniques may be used as the basis of planning the enterprise activity.

The Management can study the relative efficiency of various departments, secure profits, maintain sound credit rating through the financial analysis and financial appraisal.

A banker can judge the liquidity position, a creditor can establish the credit rating and the investor can plan buying and selling of shares on the basis of safety of principle and its capital appreciation, as warranted by the past records of earnings.

Likewise, a debenture-holder can ascertain whether income generates sufficient margins to pay the interest, whether the cost is adequate and whether the company will have enough funds to retire debenture at maturity. The financial analysis will provide suitable answers to these questions.

Through the techniques, an economist can study the extents of ‘concentration of economic power’, analyze the pitfalls in the financial policies pursued and ascertain if the pattern of investment follows the plan of objectives and priorities. To the labour leader, statement analysis and profit evaluation reveal how the company stands in relation to labour and its welfare.

Finally, legislation concerning licensing, control of cost, fixing of prices, ceiling of profits, dividend freeze, tax, subsidy and other regulation desirable in the socio-economic interest may be based on the statement analysis and financial appraisal.

We can say that there are many stakeholders who are interested in financial performance and financial position of the company for varied reasons.

2.3 **NATURE OF FINANCIAL ANALYSIS**

Financial statement may refer as any formal & original statements which disclose financial information relating to any business concern or industry or any non-business concern etc. Financial statements are prepared for the purpose of presenting a periodical review or report on the progress by the management and it deals with (a) the results achieved during the period under review and (b) the position of investments in the business concern. Thus the term has now widely been used to represent two statements of
accounts, which are being prepared at the end of a particular fixed period. These two are: Balance Sheet, which discloses the financial position i.e. status of investment (and therefore also called statement of financial position) and profit & loss account or income statement which shows the results during the period. Recently, one additional third statement is also being prepared, which is called surplus statement or retained earnings statement, which shows an account of retained earnings used in the business. A statement of changes in financial position” is also sometimes added to the above statements.

A numbers of schedules are also being attached to supplement all the main data and information contained in the financial statements. These schedules are considered to be a part & parcel of the above: statements for the purpose of their analysis & interpretation. Thus it seems quite desirable to describe the nature and objective of each of the financial statements.

2.4 ADVANTAGES OF FINANCIAL ANALYSIS

Now a days, it is widely accepted that the forms of business concerns and their transactions have become more complicated and complex. Now one cannot depend upon the intuitions for having a control over them and for drawing any decision in respect of their movements. Therefore, today it has become necessary that all quantitative facts relating to the concern must be intelligibly analyzed and interpreted and decision should be taken on that basis, because the analysis and interpretation of data highlights upon the important facts and relationships concerning various aspects of financial life of a business concern.

- Conclusions taken on the basis of intuition may be wrong and defective, because intuition is mostly inspired by the conscience and the dictates of the conscience may sometimes be illusory. On the other hand, analysis and interpretation are based on some logical and scientific methods and hence, decisions taken on that basis seldom proved to be misleading and wrong.

- Decision taken on the basis of intuition or conclusions derived through one’s personal nature so they carry either no meaning or negligible value to other persons. Sometimes, these could be understood by other people as well. On the other hand, decisions based 'on scientific analysis and interpretation are relative and easily read and understood by other people.
• The user or analyst, as an individual, has very limited personal experience. He can easily understand the complexities of business activities and their length and mutual multidirectional relationships only by observation and external experience. Thus, it becomes necessary that financial statements, which contain the above facts in an implicit form, should rather be analyzed in an intelligible way.

• Even to verify and test the accuracy and correctness of the decisions already taken on the basis of intuition, analysis and interpretation are essential.

2.5 LIMITATIONS OF FINANCIAL ANALYSIS

As every analysis has their own limitations, this analysis also is not free from the limitations. These financial statements furnish only information and that is also in the form of figures. Figures will not speak as it is the duty of the analyst or interpreter to make these figures speak of good or bad of the business affairs. Although these statements convey meaningful and useful information to various interested groups in the affairs of the concern, yet the conclusions & decisions taken on the basis of this information may not be regarded as final and accurate. Again, as mentioned in connection with the nature of financial statements, these statements suffer from several limitations, which must be considered while making the use of the information furnished by these statements. Generally, the following limitations should be taken into account while analyzing the financial statements

a) Furnished information is not precise, because the formation of above statements is based on practical methods and rules used and propounded on the basis of experiences of several years of the accountancy profession. Therefore, information originating from them can't be precisely measured,

b) Financial statement doesn’t represent the correct financial position of the concern, because it is affected by the several economic, social and financial factors, but only a single financial factor is recorded or considered in these statements.

In fact, it is far away from truth and exactness. Unless financial position is studied with reference to social and economic factors, absolute exactness cannot be ascertained.

c) Balance sheet is considered to be a static document, and it reflects the position of the concern at a moment of time. The real position of the concern may be changing all to
the time. As a result of this limitation, there is the possibility of window-dressing in the financial statement.

d) Balance sheet is not a valuation-statement i.e. that the values shown in it are not real values of assets. In full accordance with the accounting principles, fixed assets are shown in the Balance Sheet at their historical cost i.e. original cost as reduced by the amount of depreciation. And the amount of depreciation in whatever scientific manner it may have been determined is purely an estimate. Thus, the values of assets shown in balance sheet are not those at which assets may be sold. It is thus clear that the true position of the concern cannot be gauged from the Balance sheet.

e) Information conveyed by these statements may not be comparable on account of difference between dates of preparation of these statements. At the same time, there is a difference in methods of accounting operations of the concern. Thus, to a great extent, the success of the business concern depends upon the energy, ability, knowledge, experience and efficiency of the management, which is done by manpower but this is not shown in the statements in monetary value.

In the words of Kennedy Muller, "Analysis and interpretation of financial statement is an attempt to determine the significance and meaning of the financial statement data, so that the forecast may be made of the prospects for future earnings, ability to pay interest charges, and debt maturities of long term as well as short term profitability of a sound dividend policy". It is only by interpreting both the statements, we make the data appearing in the report to speak the story of actual progress and financial position of a concern in a clear and simple language easily understood by a person who is perhaps the most typical shareholder in our country. Primarily the process of analysis includes two steps, one is ‘Approximation of figures’ and second is 'Arrangement of facts duly reclassified'. This analysis could be made in following manner:-

**Types of Analysis:**

A) On the basis of information used  
   a) External Analysis  
   b) Internal Analysis  

B) On the basis of modus-operadi of Analysis  
   a) Horizontal Analysis  
   b) Vertical Analysis
2.6 TECHNIQUES OF FINANCIAL ANALYSIS

To analyze the financial performance of the corporation many techniques or methods are suggested, like trend analysis & fund flow statements analysis, cash flow analysis, comparative statements, Graphs, Averages and Ratio analysis etc. Out of these methods researcher has selected Ratio analysis for the purpose of study. We have used

   i. Liquidity Ratio  
   ii. Activity Ratios  
   iii. Profitability Ratios  
   iv. Capital structure Ratio

Analysis of financial statements can't be applied in the uniform way to all types of business concerns as these can be broadly classified into two categories viz.

   i) Private sector and ii) Public sector

The main objective of private concerns is to maximize profits, hence all types of ratios of financial statements can be applied to these types of concerns, but the main objective of a public unit is not profit but service to the country, but it is believed that these types of units should make reasonable profit. Hence, measuring the efficiency of the unit’s profit ratios can be applied along with other ratios.

The business concern can also be classified into manufacturing and service units. Service units further can be categorized into

- Reduction service units like Ahmedabad Electricity Company, Financial Service units like Gujarat State Finance Corporation., and Trading like State Trading Corporation (STC).

- The main function of trading concern specially governed by legislative assembly is to remove the middlemen from the Export and Import trade. Distribution of import items among the internal users, collecting the export items from business units. Hence, we can say that it has Zero profit motto. Its efficiency cannot be judged on the basis of ratios, but the same can be judged on the basis of other types of ratios.

At present, the most important techniques of analysis and interpretation are:
A number of such techniques are used by the financial analyst but the most popular among them are as follows:

### 2.6.1 Comparative Financial Statements

Comparative financial statements are those statements which have been designed in such a way so as to provide time perspective to the consideration of various elements of financial position embodied in such statements. In these statements, figures for two or more periods are placed side by side to facilitate the comparison.

Both the Income Statements and Balance Sheet can be prepared in the form of Comparative Financial statements.

- **Comparative Income Statements**

The Income Statement discloses Net Profit or Net Loss on account of operations. A Comparative Income Statement will show the absolute figures for two or more periods, the absolute change from one period to another and, if desired, the change in terms of percentages. Since the figures for two or more periods are shown side by side, the reader can quickly ascertain whether sales have increased or decreased, whether cost of sales has
increased or decreased; etc. Thus, only a reading of data included in Comparative Income Statements will be helpful in deriving meaningful conclusions.

- **Comparative Balance Sheet**

Comparative balance sheet of two or more different dates can be used for comparing assets and liabilities and finding out any increase or decrease in those items. Thus, while in a single balance sheet the emphasis is on present position, it is on change in the comparative balance sheet. Such a balance sheet is very useful in studying the trends in an enterprise.

**2.6.2 Common-size Financial Statements / Income Statement**

Financial statements that depict financial data in the shape of vertical percentages are known as common-size statements. In such statements, all figures are converted to a common unit by expressing them as a percentage of a key figure in the statement. The total of financial statement is reduced to 100 and each item is shown as a component to the whole. For example, in profit and loss account, the figure of each item is expressed as a percentage of net sales, while in balance sheet each item of assets and liabilities can be shown as percentage of total assets and total liabilities and capital respectively. Thus, expressing each monetary item of the financial statement as a percentage of some total of which that item is a part, transforms a financial statement, which is referred as “common size statement”. The common-size statements are also known as “common percentage” or “100 percent statement”. Such statement show the relative significance of the items contained in the financial statement and facilitate the comparison.

- **Common-size Balance Sheet**

The common-size balance sheet represents the relation of each asset item to total assets and each liability and capital item to total liabilities and capital respectively. Thus, the balance sheet converted into percentage form is called common-size balance sheet.

- **Common-size Profit And Loss Account**

Common-size profit and loss account shows the percentage of net sales that has been absorbed by each individual item representing in profit and loss account.
2.6.3 Trend Analysis

The comparative financial statement is used to study the changes which have occurred in each item of the balance sheet and profit and loss account within a period of two years, but do not indicate the trend of progress during the past several years. Therefore, financial statement for a series of years may be analyzed to determine the trend of the data contained therein. This involves the computation of percentage relationship that each item in the financial statement bears to the corresponding item contained in that of the base year. For this purpose, the earliest year involved in comparison or any intervening year may be considered as the base year. Thus, the trend analysis is the method of analyzing financial position of a business on the basis of changes in the items of financial statement of successive years in comparison to a specific date or period of commencement of study. This method of analysis is immensely helpful in making comparative study of financial statements of several years, the trend analysis of business operation and other financial data may be done in any of the following ways.

1. Trend Percentages
2. Trend Ratio
3. Graphic or diagrammatic Presentation

1. Trend Percentage

In this method, first of all, the information contained in financial statements of several years is tabulated. Then, the percentage increase or decrease in each item for all other years is calculated by taking the earliest year or any one year as base. These percentages are called trend percentages, which give an idea about the rate of change in comparison to base year. Trend percentages are especially valuable because of their brevity achieved by substituting percentages computed for major items in the financial statements. Such study is both informative and valuable to management in its decision-making process.

2. Trend Ratio

Trend percentage is not suitable for comparison because they contain plus (+) and minus (-) signs. So, use of trend ratio is considered more appropriate. The calculation of trend ratio involves the ascertainment of arithmetical relationship which each item of several years bears to the same item of the base year. While calculating trend ratio, current year’s value is divided by base year’s value and is multiplied by 100. These trend ratios are like price index numbers which indicate the movement or fluctuations in various financial
facts of the business. So, an analyst can interpret the business changes as well as regularity of the series is maintained in these ratios.

3. Graphic or Diagrammatic Representation
The trend percentage or trend ratio can be depicted by graphs and diagrams. The trends in two related variables can also be simultaneously presented in comparative form. Thus, graphs and diagrammed can represent the progress of business activities more clearly and in intelligible way. The graphs and diagrammed can draw the human attention immediately and the changes are understood easily only at a glance. That is why, now a day, the graphs and diagrammed are being used in published accounts to show the changes in sales, stock, capital, profits and other important items. Every data for different past years regarding various items are presented through graphs and diagrammed.

2.6.3.1 Utility of Trend Analysis
This method of analyzing financial statement is more important due to its following merits:

Summary Presentation: The problem in this method is presented in a summary as larger figures are converted into percentage or ratio which is comparatively more useful.

Direction of Change: The direction of changes can be even more clearly and easily represented by graphs and bar diagrams.

Simple Method: This method of analysis is simple and easy to present. The results obtained can be easily understood by a common man. Highly trained personnel are not required as an average person can analyses the data.

No Possibility of Errors: In this method, the possibility of committing errors is reduced because results obtained from percentage changes in data can be verified from absolute changes.

2.6.3.2 Limitations of Trend Analysis
While analyzing the financial statement through trend percentage or ratios, it is necessary to keep in view its limitations, otherwise the conclusions drawn will prove misleading. Important limitations are identified as follows:

1. Limited Significance: The trend ratio or percentage of a single item has no significance in itself, unless it is compared with the trend ratio of other related item.
For instance, an increasing trend in the value of stock is meaningless unless it is compared with declining trend in sales.

2. **Illogical and Misleading Conclusions:** The inferences drawn on the basis of simply trend ratio without keeping in view the original figures may be illogical and misleading.

3. **No Normal Base Year:** Trend percentage or ratio is calculated with reference to financial statements of a particular year, known as base year. This base year should be normal and representative of the items shown in the financial statements. If the base year is an abnormal year on account of some reasons such as year of war or of natural calamities, the conclusions drawn from such analysis will be misleading and false.

4. **Inconsistency in Accounting Principles:** The comparison of trend ratio may be unscientific and inconsistent if the accounting principles and practices followed are not uniform throughout the period of analysis. The comparability of data adversely due to changes in price level.

5. **Under Weight age:** If the value of an item in the base year is too small, then a small change in it will lead to more changes in trend percentage. In such situation, it is not proper to take decision or plan for future.

### 2.6.4 Fund Flow Analysis

In financial statement, balance sheet shows assets, liabilities and equity of the firm at a certain moment of time. Profit and loss account depicts operating results over a period of time. Both these financial statements do not depict the flows of funds and changes in the items of assets and liabilities between two dates. Hence, a fund flow statement is prepared to know the different sources of funds and their different uses. This fund flow statement is a summary report of financial operations of a business enterprise, in which it is explained, how business activities are financed and how the financial resources of the business are being used. According to Fouke, “a statement of sources and applications of funds is a technical device designed to analyze the changes in the financial conditions of business enterprise between two dates.”

### 2.6.5 Cash Flow Analysis

In any business, it is essential to known the sources of cash and the items on which it is spent. Fund flow statement does not provide such information, because many items not
relating to cash are included in fund flow statement. Therefore, to know about the flows of cash during an accounting period, a separate statement known as cash flow statement is prepared. Thus, cash flow statement is a statement of inflows (sources) and outflows (users) of cash and cash equivalents in an enterprise during a specified period of time. With this statement, the causes for variation in the cash balance between any two dates are interpreted.

### 2.6.6 Ratio Analysis

Ratio analysis is a technique of presenting internal and external events affecting the business transactions relating to its operations, operating results and attainment of predetermined goals and objectives of a business in brief and summary form. Ratio analysis is the process of determining and presenting the relationship of items or group of items in the financial statement. In ratio analysis, a definite conclusion is drawn by establishing quantitative relationship between two or more items of financial statements. External parties such as investors, shareholders, creditors etc. require information about the financial soundness or weakness of the concern. Therefore, ratio analysis is used by all these parties including management to evaluate the performance of the concern. With the help of these ratios, the liquidity position, long-term solvency, operating efficiency or profitability and efficiency of a concern can be evaluated.

### 2.6.7 Break-Even Analysis

Profit is a function and resultant of the interplay of costs, profit and volume. The break-even point is that point of activity (sales volume) where total revenues and total expenses are equal; it is the point of zero profit and zero loss. It guides the management to determine the optimum level of output where costs and price frequently varies. It is an effective and efficient technique of planning and decision making.

### 2.7 REVIEW OF LITERATURE

Review of literature can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis. The review of literature plays a vital role, to undertake the study on profitability analysis of selected telecommunication company. I have reviewed past few year literatures are described as follows:
Craig Lawrence (1993)

This paper examines the relationship between airline profitability and market share in the context of contemporary strategic business theory. The paper provides a general overview of the business environment in which airlines operates, provides some of the organizational goals airlines pursue, and develops a situation assessment template for the airline industry. Theories of business management are then evaluated with respect to the nature of the airline industry before major elements of market share and profitability are examined.

An empirical analysis based on a model of a domestic Australian route is used to draw some conclusions about the impact of different business strategies on airline profitability and market share. This is then broadened through the introduction of a simple network model to examine the potential impact of operating a network of services.

The paper reaches the conclusion that the simplistic profitability-market share relationship is not applicable to the airline industry, given that there are a large number of other factors impacting on airline performance.

Laszlo Halpern, Gabor Korosi (1997)

Labor market and financial information is combined to explore the effect of the quality of labor employed on the profitability of the firm. The quality of labor is measured as the portion of wage differentials that cannot be explained by the human capital model. Profitability of Hungarian exporting firms can be explained by economic factors during transition. Besides the quality of labor export share, wage and bank costs, payables, receivables, foreign ownership, inventories, amortization and equity became significant explanatory variables. Sectors proved to be insignificant explanation for profit differences. Changing effects of monopolistic competition and of the size of the firm reflect turbulent institutional environment for firms.

Kathryn L. Dehenter, Paul H. Malatesta (1998)

They present empirical evidence on the relative profitability, leverage, and labor intensity of government-owned and privately-owned firms. Cross-sectional analysis of a sample of very large firms indicates that those owned by governments are significantly less profitable than those held privately. They are also more highly leveraged and more labor intensive. They conduct a time series analysis of privatized firms and find little evidence
that privatization enhances profitability. In our sample profitability improves immediately before privatization. The evidence on subsequent improvement is mixed. Some measures of profitability are significantly less after privatization than just beforehand. The evidence suggests that governments efficiently restructure at least some firms before selling them, but that the actual change of ownership does not give rise to further efficiency gains subsequently.

Richard S. Markovits (1998)

Politicians and most economists seem to assume that from the perspective of locative (economic) efficiency he currently devotes too few resources to real investment in general and R&D in particular. He therefore supports antitrust, tax, tort-law, and "innovation-law" policies that will tend to increase the amount of resources devoted to all types of real investment and R&D. This Article argues that this assumption and those related policy conclusions are far too crude.

The Article begins by executing a partial and preliminary third best-locative-efficiency analysis that concludes that although the extant Pareto imperfections almost certainly cause the private profitability of production-process research (designed to make discoveries whose use will reduce the private or locative cost of producing relevant quantities of extant products) to be lower than the locative efficiency of such research, his imperfections seem very likely to cause the private profitability of product research and non-innovative investments in product quality or variety to be higher than their locative efficiency. The primary reason for these latter conclusions is that imperfections in seller competition seem likely to deflate the private cost that a product-R&D investment or non-innovative product-investment (because their private cost to be longer than their locative cost) by more than they deflate the private benefits of product research and non-innovative product investment yield the investor.

The Article concludes by outlining the implications of these results for the desirability of various extant and proposed antitrust, tax, tort-law, and copyright-patent-and-trade-secret policies. The general thrust of its argument is that, to be allocatively efficient, policies that seek to encourage additional R&D expenditures or investments in general must be more selective -- must be designed to insure that he will subsidize only those expenditures whose profitability would otherwise be deflated by the Pareto imperfections present in our economy.
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. However, much of the research uses a large database information without determining if sample assumptions needed can be met for reliable conclusions to be drawn by the researchers. This paper presents recommended adjustment techniques for researchers using large databases for ratio calculation to allow for confidence that the results of analysis will be meaningful and that inferences may be drawn from the data. Using a sample from the Kauffman Center for Entrepreneurial Leadership Financial Statement Database, Balance Sheet and Income Statement data of 250 firms is used to illustrate and explain techniques for data error identification, handling the problem of denominators being negative or approaching zero when calculating ratios, and effective techniques for transforming the data to achieve approximation of normal distributions. The application of these recommendations will allow researchers to use financial statement data samples that will meet required characteristics for the use of valid multivariate statistical analysis.

Doron Nissin, Stephen H. Penman (2001)

This paper presents a financial statement analysis that distinguishes leverage that arises in financing activities from leverage that arises in operations. The analysis yields two leveraging equations, one for borrowing to finance operations and the other for borrowing in the course of operations. These leveraging equations describe how the two types of leverage affect book rates of return on equity. An empirical analysis shows that the financial statement analysis explains cross-sectional differences in current and future rates of return as well as in price-to-book ratios, which are based on expected rates of return on equity. The paper therefore concludes that balance sheet line items for operating liabilities are priced differently than those dealing with financing liabilities. Accordingly, financial statement analysis that distinguishes the two types of liabilities aids in the forecasting of future profitability and the evaluation of appropriate price-to-book ratios.

Susan Jackman, Yvonne P. Shanahan (2002)

This paper traces the evolution of a customer profitability analysis system used by a major New Zealand retail bank. It is shown that the bank currently uses a first generation
customer profitability analysis system, but dissatisfaction with the system has developed. The current system's limitations do not allow the bank to effectively use customer profitability information to support its marketing strategy. As a result the bank is in the process of designing and implementing a second generation customer profitability analysis system. Issues concerning the design of the new system are discussed. Although the firm is still in the process of implementing the new system, a description of the decisions it is making during the design phase provides useful insight for firms contemplating implementation. How the new information will be used to support the firms marketing strategy is then described. This amalgamation of marketing and management accounting has been called for in the management accounting literature.

**Fred R. Kaen, Hans D. Baumann (2003)**

They examine the relation between profitability and size for sixty-four manufacturing industries between 1990 and 2001. They use three measures of profitability: Earnings before interest, taxes, depreciation and amortization as a percent of sales (EBITDA margin); earnings before interest and taxes as a percent of sales (EBIT margin) and EBIT as a percent of total assets (EBIT/TA). Our measure of firm size is the natural log of the number of employees.

He finds the following:

1. In about half of the sixty-four industries firm profitability increases at a decreasing rate and eventually declines as firms become larger.
2. For the remaining half of our manufacturing industries, no relationship exists between size and profitability.
3. For a given level of total assets, firms with fewer employees exhibit greater profitability.
4. For a given level of sales, firms with fewer employees exhibit greater profitability.

His results are consistent with theories of firm size that specify trade-offs between economies of scale and organizational costs and with theories that ascribe certain competencies to firms that allow them to offset the advantages often ascribed to large firms such as economies of scale.

**Jack d. Glen, Kevin Lee, Ajit Singh (2003)**

The paper presents time-series analyses of corporate profitability in seven leading developing countries (DCs) using the common methodology of the persistence of
profitability (PP) studies and systematically compares the results with those for advanced
countries (ACs). Surprisingly, both short and long-term persistence of profitability for
DCs are found to be lower than those for ACs. The paper concentrates on economic
explanations for these findings. It also reports the results on the persistence of the two
components of profitability - output-capital ratios and profit margins. These too raise
important general issues of economic interpretation for PP studies which are outlined.


The purpose of this report is to review the evidence on the profitability of technical
analysis. The empirical literature is categorized into two groups, "early" and "modern"
studies, according to the characteristics of testing procedures. Early studies indicated that
technical trading strategies here are profitable in foreign exchange markets and futures
markets, but not in stock markets before the 1980s. Modern studies indicated that
technical trading strategies consistently generated economic profits in a variety of
speculative markets at least until the early 1990s. Among a total of 92 modern studies, 58
studies found positive results regarding technical trading strategies, while 24 studies
obtained negative results. Ten studies indicated mixed results. Despite the positive
evidence on the profitability of technical trading strategies, it appears that most empirical
studies are subject to various problems in their testing procedures, e.g., data snooping, ex
post selection of trading rules or search technologies, and difficulties in estimation of risk
and transaction costs. Future research must address these deficiencies in testing in order
to provide conclusive evidence on the profitability of technical trading strategies.


Most decision making research in management accounting remains focused on cost
information in a production context. Little is known on the relevance of customer
profitability analysis (Cup) reports, which more accurately reflect revenue and marketing
support variations across customers, for marketing decisions. This study uses an
experimental design to examine the impact of such reports on resource allocation
decisions (that affect the firm's profits) in marketing environments varying in complexity.
The main result of the experiment suggests that the value of Cup reports depends on the
complexity of the marketing setting. Only in a highly complex marketing setting they do
enhance resource allocation decisions and resultant firm profitability. Conversely, in the
simple marketing environment, decision makers can combine their traditional volume-
based cost data with other available types of feedback to perform as well as under a more accurate Cup report. These findings on complexity contrast with those of a prior study in a production context (Gupta and King, 1997). It is argued that improvements in the current research design, in the form of regularly updated profitability reports and concerning accuracy, increase the relevance of customer profitability analysis reports in a complex marketing setting.


The profitability of European banks during the 1990s is investigated using cross-sectional, pooled cross-sectional time-series and dynamic panel models. Model For the determinants of profitability incorporate size, diversification, risk and ownership type, as well as dynamic effects. Despite intensifying competition there is significant persistence of abnormal profit from year to year. The evidence for any consistent or systematic size-profitability relationship is relatively healed. The relationship between the importance of off-balance-sheet business in a bank's portfolio and profitability is positive for the UK, but either neutral or negative elsewhere. The relationship between the capital-assets ratio and profitability is positive.

**Mark T. Soliman (2004)**

Industry peer groups serve as both a theoretical and an intuitive benchmark in financial statement analysis. However, the practice of industry-adjusting financial ratios is sparse in existing financial statement analysis research. Much of the academic research on the mean reversion of profitability assumes economy-wide reversion targets. Economic theory supports the use of this target and empirical evidence is consistent with these predictions. However, some components of profitability may not revert to economy-wide averages because of structural differences across industries. For these components, industry averages serve as better long-term targets. DuPont analysis decomposes return-on-net-operating assets (RNOA) into two multiplicative components: profit margin and asset turnover, both of which are largely driven by industry membership. This paper investigates whether using industry-adjusted DuPont analysis is a useful tool in predicting future changes in RNOA or not. In contrast to prior research that used economy-wide targets and finds that these components are not useful in forecasting, he finds that these components are informative when industry-adjusted and that using them helps predict future changes in RNOA in both in-sample and out-of-sample forecasting tests.

This paper aims at evaluating the profitability of several portfolio strategies based on fundamental ratios, with an approach as practical and ready to be implemented as possible.

Taking the Nasdaq 100 from 1998 to 2004 as the investment universe, he computed ratios (such as the book-to-market equity (BM), earnings per share to price (PE), cash flow per share to price (CFM), the so-called cash flow return on investment (CFROI), etc.) for each stock composing the index and ranked firms accordingly. He then constructed market neutral portfolios, buying the best stocks and shorting Nasdaq 100 future contracts (adjusting for beta).

Results are noteworthy: the best strategies post returns between +25% and +30% per year, with volatility of about 11% to 14% and positive scenes. He finds that these investment strategies are however positively correlated to the relative distress factor (that is a portfolio which buys high BM securities and sells low ones) and the small cap effect (synthesized by a portfolio that buys small caps and sells large caps). It will be then up to investors' preferences and relative risk aversion to these variables whether these strategies will be suited for them or not. The overall cut of this essay is rather empirical because it will be tested with real money. As a consequence he does not take on short selling, because most investors are not allowed to or it is just too costly for them. Futures are instead used as a hedge. He calculated returns both gross and net of brokerage fees: results are not altered substantially and remain remarkably positive.


This article proposes a new methodology that uses fuzzy logic to measure the profitability of organizations. In this research they have utilized 87 financial reports of 2003, which here published in the "Valor1000 do Journal Valor Economic". The data collected was analyzed and classified according to the Paparazzo’s scale (1997), and then assigned a qualitative variable according to their position in relation to the decal. This study has utilized the specific software FuzzyTech in order to define the pertinence functions. With the help of two specialists 69 inference rules here developed in order to implement the fuzzy system. The results founded in the fuzzy system here have been compared to the results found by the specialists. They obtained an average error of 9, 58% with a standard deviation of 7, 40%, and in two financial reports the results founded by the proposed
fuzzy model have coincided exactly with the specialists, demonstrating that fuzzy logic models can be used as an efficient tool to validate expert's opinion.

**Sanjay Kumar Singh, Anand Vinkatesh (2004)**

Depot is the most important and crucial operating level unit in Road Transport Corporations. It is here that more than 80 percent of the total manpower and financial resources are invested. Profits and losses are usually determined at depot level on the basis of its operating results. In this paper, they analyze the level as well as growth of productivity and economic profitability of Seagate depot of MSRTC using its monthly data from April, 1995 to March, 2001. Seagate depot, located in Pune city, operates with 130 buses and is usually considered as a representative depot of Maharashtra State Road Transport Corporation (MSRTC). He finds that productivity of the depot has declined by around 15% over the sample period. Although, on an average, there is a marginal increase in output prices in comparison to input factor prices, productivity decline has resulted into a significant fall of around 12% in its economic profitability over the sample period.

**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. Specifically they investigate whether incorporating the industry performance metric provides incremental information over the firm specific metric for explaining performance one-year-ahead. They also investigate the usefulness of performing industry level analysis relative to an analysis of all firms pooled across the economy.

They find little or no incremental explanatory pother from incorporating industry information for predicting future profitability, defined either as return on equity or return on net operating assets. Nor do they find industry information incrementally informative for predicting growth in net operating assets. They do, however, find significant improvement from incorporating industry information for predicting growth in sales. These general results hold for one-, three-, and five-year windows, and are robust to alternative industry classification schemes.
Po-Hsuan Hsu, Chung-ming Kuan (2005)

In this article they reexamine the profitability of technical analysis using White’s reality check and Hansen’s SPA test that correct the data snooping bias. Compared to previous studies, they study a more complete "universe" of trading techniques, including not only simple rules but also complex trading strategies, and they test the profitability of these rules and strategies with four main indices. It is found that significantly profitable simple rules and complex trading strategies do exist in the data from relatively "young" markets (NASDAQ Composite and Russell 2000) but not in the data from relatively "mature" markets [Dow Jones Industrial Average (DJIA) and S&P 500]. Moreover, after taking transaction costs into account, they find that the best rules for NASDAQ Composite and Russell 2000 outperform the buy-and-hold strategy in most in- and out-of-sample periods. It is also found that complex trading strategies are able to improve on the profits of simple rules and may even generate significant profits from unprofitable simple rules.

Silvio John Camilleri (2005)

The paper consolidates the summarized financial statements of the main banks operating in Malta during the year 2002, to form a Typical Large Bank and a Typical Small Bank. The profitability, risk and growth prospects of the two institutions are analyzed through Return on Equity decomposition and the use of other financial ratios. Various differences between large and small institutions emerge. In particular, larger institutions realized higher profitability and cost control; they here more capitalized in absolute terms and relied relatively less on interest income. Smaller institutions generated comparatively more revenue; they here more capitalized in relative terms, here relatively more provisioned against loan losses and held a higher proportion of liquid assets.

Timo Salmi and Teppo Martikainen (2005)

This paper provides a critical review of the theoretical and empirical basis of four central areas of financial ratio analysis. The research areas reviewed are the functional form of the financial ratios, distributional characteristics of financial ratios, classification of financial ratios, and the estimation of the internal rate of return from financial statements. It is observed that it is typical of financial ratio analysis research that there are several unexpectedly distinct lines with research traditions of their own. A common feature of all the areas of financial ratio analysis research seem to be that while significant regularities can be observed, they are not necessarily stable across the different ratios, industries, and
time periods. This leaves much space for the development of a more robust theoretical basis and for further empirical research.

**Hassan Benchedroun, Amrita Ray Chaudhuri (2006)**

They analyze the effects of bilateral tariff reductions on the profitability of cost-reducing horizontal mergers. Given Cournot competition in a two-country world, for any positive tariff below a certain threshold, marginal trade liberalization is shown to encourage only those domestic mergers with sufficiently large cost-savings and to discourage the rest. For tariffs close to, but smaller than, the prohibitive tariff, however, marginal trade liberalization necessarily encourages all domestic mergers. Moreover, they show that for a given level of cost-savings, the impact of marginal trade liberalization may not reliably predict that of no marginal liberalization.

Although at high tariffs, domestic mergers are shown to be unambiguously more profitable than cross-border mergers, near free trade, mergers which yield the most cost-savings become the most profitable. Thus, when comparing domestic and cross-border mergers, trade liberalization encourages the type which yields the most cost-savings.

**Chris (Hristors) doucouliagos, Patrice Laroche (2007)**

The effect of unions on profits continues to be an unresolved empirical issue. In this paper, meta-regression analysis is applied to the population of 45 econometric studies that report 532 estimates of the direct effect of unions on profits. They show that unions have a significant negative effect on profits, and that this effect is larger in the US. Separate meta-regression analysis is used to identify the sources of union-profit effects. Meta-analysis of 239 estimates of unions interacted with the hypothesized sources of union rents reveals that neither the market power nor the quasi-rent appropriation theories are supported by the extant studies. Analysis of the between-study heterogeneity reveals that unions have an indirect effect on factor accumulation - they depress physical capital formation and stimulate advertising expenditure. There is a clear need for additional primary research in this area.

**Joseph Calandro Jr., scott Lane (2007)**

The purpose of this paper was to introduce the Relative Profitability and Growth matrix and to demonstrate its use as a competitive analysis tool.
Design/methodology/approach: Two well-known drivers of value are profitability and growth. After a study of 2x2 matrices they applied these drivers on a relative or industry comparative basis to a 2x2 matrix, and then they applied that matrix to competitive analyses of two industries to assess its strategic utility.

Their findings suggest that the Relative Profitability and Growth matrix could be a useful competitive analysis screening and communications tool. Practical and research implications: The Relative Profitability and Growth matrix assesses a firm's profitability and growth relative to its industry and by so doing helps to identify and classify performance in a succinct format that facilitates further analysis. After such analysis has been completed the matrix can also serve as a convenient tool to communicate the analytical findings. Originality/value: The Relative Profitability and Growth matrix is a value-driver based 2x2 matrixes, the strategic utility of which is demonstrated and explained in two examples.

Scott H. Irwin, Cheol-Ho Park (2007)

The purpose of this paper is to review the evidence on the profitability of technical analysis. The empirical literature is categorized into two groups, early and modern studies, according to the characteristics of testing procedures. Early studies indicate that technical trading strategies are profitable in foreign exchange markets and futures markets, but not in stock markets. Modern studies indicate that technical trading strategies consistently generate economic profits in a variety of speculative markets at least until the early 1990s. Among a total of 95 modern studies, 56 studies find positive results regarding technical trading strategies, 20 studies obtain negative results, and 19 studies indicate mixed results. Despite the positive evidence on the profitability of technical trading strategies, most empirical studies are subject to various problems in their testing procedures, e.g. data snooping, ex post selection of trading rules or search technologies, and difficulties in estimation of risk and transaction costs. Future research must address these deficiencies in testing in order to provide conclusive evidence on the profitability of technical trading strategies.


These authors have done literature review of Performance Measurement Systems (PMS) in Small- and Medium-sized Enterprise (SMEs) and they found that the main contributions focus on the development of theoretical models, but not on guidelines for
practical implementation. In this context, an important neglected aspect is the general fitness or readiness of a SME it implements a PMS. For this purpose, a case study in a German SME was conducted. The findings indicate that the existence of specific contingency factors - Corporate Strategy, software-based Enterprise Resource Planning (ERP) and Activity Based Costing (ABC) – strongly supports the successful implementation of a PMS and its later use. Hence, further research shall include these prerequisites as new variables determining the PMS process. Based on that, researchers and managers of SMEs can develop individual indicators to identify their own PMS readiness.

Eldos Mathew Punnose (2008)

The study looks into one of the most exciting areas in the management literature. Performance contrast between individual and group firms has always been discussed in the academic circles and several studies have emanated from the same. The results are, however, mixed. Hence this study also tries to compare and analyze the performance contrast between the two and add to the current body of knowledge. As many as 121 companies in the Indian electrical machine manufacturing industry formed the sample and they were analyzed for a period of three years (2003-05). The industry was classified into high, medium, and low in terms of assets and performance analyzed. There were no significant differences between group and individual firms in any of the categories. Regression analysis was done to evaluate the association and explanatory pother of various factors on performance. Only size and capital intensity had explanatory pother and it has been noted that as the size of the firms decreases the impact of size on profitability increases. A linear discriminate function for discriminating between the profitable and non-profitable industries has also been developed.

Elena Loukoianova (2008)

The paper analyzes the efficiency and profitability of Japanese banks from 2000-06. It uses a non-parametric approach, the data envelopment analysis, to analyze banks' cost and revenue efficiency. The results show that the performance of Japanese banks has steadily improved since 2001, but there are significant differences within the banking sector, with regional banks being less cost and revenue efficient relative to both City and Trust banks. While Japanese bank profitability is low compared to that in other advanced countries, there is considerable potential for efficiency gains, particularly through increased cost-
sharing arrangements among regional banks, consolidation of regional banks with major or other regional banks, and the creation of bank consortia to pool resources for asset and risk management.

Luiz Paulo Lopes Favero(2008)

Literature has not reached a consensus on how the firm and industry effects influence the stock price performance of publicly-traded companies over time. Based on the premise of significant changes in the stock price performance of companies listed on Sao Paulo Stock Exchange in recent years, and the occurrence of these variations in function of the characteristics of each firm and activity industry, this study uses hierarchical modeling with repeated measures to propose an approach that permits analyzing random effects as an alternative for profitability evolution analysis. 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 on Bovespa in recent years.

Ashwani Kumar Bhalla, Parvinder Arora (2009)

Housing Finance is a specialized form of finance and efficiency of housing finance system in a country is one of the basic indicators of the growth of its economy. Hence understanding the efficiency and effectiveness of housing finance system is very much essential and relevant. This paper critically examines the profitability of selected housing finance companies and analyzes the strong factors which affect the profitability of these companies. The evaluation of performance of housing finance companies is made using some widely used indicators of measuring finance companies performance, namely financial ratios. To compare the company wise profitability of selected housing finance companies they have used the set of ratios to compare the profitability of these companies and to analyze the strong factors which affect the profitability of these companies. These ratios are: Return on Capital Employed (ROCE), interest Income as percentage of capital employed, non-interest income as percentage of capital employed, interest expenses as percentage of capital employed, operating and administrative expenses as percentage of capital employed, employee expenses as percentage of capital employed. In the analysis the correlation analysis has been used to study the correlation between various variables.
A.Ramachandran, N. Kavitha (2009)

In view of the importance of improving the profitability performance of the banking sector in recent years, a census study has been adopted by covering all the Indian scheduled commercial banks, which have been divided into three groups viz., the SBI group, the Nationalized Banks group and the Private Banks group with two sessions, i.e., Period I and Period II by dividing the 10 year-study period into the first five years and the last five years. The step-wise multiple regression analysis was adopted for the study. An analysis of the SBI group reveals that in both the periods of study, the variable provisions and contingencies to total expenses occupied a prominent place. The nationalized banks group showed a position of provisions and contingencies to total expenses in the first half of the study period and Capital Adequacy Ratio during the second half of the study period. In relation to the private banks group, it has changed from other interest expenses ratio to capital adequacy ratio.


This article reviews every litigated federal merger case since 1992, when the federal enforcement agencies revised the entry section of their merger guidelines. This review, unprecedented in the literature, shows that courts continue to neglect the entry phase of merger analysis, the phase that addresses whether, if the merged firm raised prices, new firms would enter the market and restore competition. In determining whether new entry is likely, most courts do not ask whether it would be profitable, but whether the market is protected by entry barriers. This “yes or no” approach is flashed, for all markets have some barriers and the real question is whether the barriers are so high that an investment in entry would not pay off.

While some commentators suggest that the issue is beyond the capacity of generalist judges, he believes that courts simply need a firmer grasp of the underlying economics and a more practical methodology for assessing the profitability of entry. To that end, this article summarizes the relevant economics and proposes a new approach to litigating the issue. If defendants contend that entry is easy, they would have to identify a “path to profitability” — a concrete business plan that would enable a new entrant to achieve profitability and drive prices back to the competitive level within a reasonable time period. This new requirement would place the emphasis where it belongs: on whether the
prospects for financial success are sufficiently encouraging to entice a substantial new player into the market, correcting the competitive problem.

**Cid Garcia Nagueira, Joao Francisco Aguiar (2010)**

Several studies have proved that the market value of the companies has distanced themselves from the book value. The researchers have been searching the causes that explain the high discrepancy. One research stream focuses the intangible resources, and among these, the impact that the intellectual capital shows on the value creation.

This study has tested the model proposed by Professor Ante Pulæ in order to verify if the intellectual capital exerts a positive impact on the profitability of the companies. The sample reached the Leather Set Up, Leather Artifacts, Travelling Products, and Footwear Sector in Brazil, of which companies are picked up from the data basis of the Brazilian Institute of Geography and Statistics that carries out the Annual Industrial Research, with the national code of economic industry (cane) 19. The hypotheses tested were: (I) a positive relationship between profitability and intellectual capital exists; (II) a positive relationship between profitability and stock of intellectual capital exists; (III) a positive relationship between profitability and efficiency of the capital employed exists; (IV) a positive relationship between profitability and efficiency of the human capital exists; (V) a positive relationship between profitability and efficiency of the structural capital exists. Panel data analysis was used in order to corroborate the hypotheses. The obtained results put forward a statistically significant and positive relationship between the intellectual capital and the profitability, measured by Return on Assets, in static models based on minimum square errors. The dynamic models have not been corroborated.

**Crane L M (ND) Measuring Financial Performance: A Critical Key to Managing Risk.** He has explained in his paper various financial measurement tools like balance sheet analysis, finding out various ratios like liquidity ratio, profitability ratio, efficiency ratio, solvency ratio, repayment capacity etc. in a lucid manner. He has not only explained traditional ratios but also explained various new and innovative ratios like Financial efficiency measures the, degree of efficiency in using labor, management and capital,
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