

## **CHAPTER TWO**

### **2.0**

### **REVIEW OF LITERATURE**

Reviewing literature is integral to research process that broadens researcher's knowledge in the area of interest. It exposes the researcher to different views of other authors, researchers and commentators on the subject area so that gap(s) existing could be filled or reduced in the new work. The review will emanate from textbooks, researched journal publications, and published commentaries. The chapter is discussed under the following sub-titles: Financial reporting/Ratio analysis; capital/stock market analysis; Fundamental/Technical analysis; Value-relevance of accounting numbers; Indian automobile sector analysis, and Japanese automobile sector analysis.

#### **2.1 Financial reporting/Ratio analysis**

The paper of Kazi, 2016 (16) examines the performance of BPL in five years through ratio analysis. The data for the study is from the annual financial statements of the company from 2009-2013. The ratios analyzed are the liquidity ratios, profitability ratios, assets management ratios, debt coverage ratios, market value ratio. Graphs, charts and DuPont Analysis are used to make the needed analysis. The author found out that the use of ratio DuPont Analysis are important techniques to evaluate performance of a company. And from this result, he advised the company on areas to pay particular attention as to improve performance, such as liquidity, profitability, etc.

The article of Krishinaveni, Vidhya, 2015 (17) is on 'A study of liquidity analysis of Indian automobile industry' where they focused on liquidity ratios to determine performance of the industry especially of the selected automobile companies in the short-term. 87 automobile companies are selected for the study based on stratified sampling, these comprise of automobile companies and auxiliary companies in the automobile industry. The secondary data is used, emanating from annual reports of the companies from 2004-2005 to 2013-2014. Ratio analysis is the main tool used, and further analysis made using averages, range, ANOVA, co-efficient of variation. This is comparative study where the liquidity position of the different categories are compared. The study reveals that liquid ratio is highest in the tractor segment, followed by three-wheeler segment. In the ancillary sub-sector, lamps had the highest liquid ratio followed by engine.

The study concludes that liquidity of the companies are within the acceptable limits, so creditors can be sure of getting regular interest payments and other obligations.

Liquidity is important to the existence of a business, just as blood is important to existence of human. Hence Maheshwari, 2015 (18) writes on 'financial performance of Hero Honda Motors Limited' which aims at analyzing the liquidity, solvency, and profitability, position of the company, so that stakeholders will consider investment decision. The author used secondary data. Descriptive statistics are used for data analysis. The study covers a period of 8 years (2002/2003-2009/2010). The tool to determine these performances is 'Ratio Analysis.' He finds out that liquidity position of Hero Honda Motors Ltd is below an acceptable standard of 2:1. And solvency position is fairly okay, as it fluctuates between 62% and 39% within the period of the study. Profit also fluctuates, but was encouraging for potential investors. The author concludes that the general performance of the company is good and promises to improve based on the indices.

The contribution of ratio analysis in investment decision making is explained in in the work of Oshoke, Sumaina, 2015 (19) in the paper 'performance evaluation through ratio analyses, where they examine the profitability, liquidity, earnings, and general health conditions of companies through the analysis of ratios. This is the oldest form of performance evaluation, and generally conducted by financial analysts to assess the health of companies. Four null hypotheses are developed and tested. All listed companies of Nigerian Stock Exchange are slated for this study, but fifty of the companies are sampled. Secondary data is adopted and it covers a period from 2009-2013. Multiple regression is developed along with mean, standard deviation and correlation analysis, and utilized for analysis and interpretation. The study found that there are significant impacts of ratio analysis (both positive and negative) on performance. The authors recommend further research because of the pervasiveness of the topic.

There seem to be a strong correlation between the contents of published financial statements and investment decisions as is opined by Popoola, Akinsanya, Babarinde, 2014 (20) in their study, suggesting published Financial Statement as a Correlate of Investment Decision. A sample of 180 was selected. Correlation and regression were used for analysis. The result of the study reveals that financial statements have necessary information relevant to make investment decisions.

To determine the soundness of a firm is to also look at its capital structure. It will give an insight to what the annual debt will be as the debt to equity proportion is revealed. This is emphasized by Soni, Shah, Chawla, 2014(21) while writing on 'Important determinants of capital structure decisions of Indian automobile industry' where they highlights the important things to look out for in considering the capital composition of a company as to have a highly competitive company. The authors listed the following as the main determinants of capital structure; choice of investor, nature of business, leverage, control, flexibility, floatation costs, marketability. The article studies 6 automobile companies Maruti Suzuki, Tata Motors limited, Mahindra & Mahindra, Eicher Motors, Force Motors, and Ashok Leyland. Hypotheses were postulated and tested. The study concludes that to an extent, there is positive relationship between value of the firm, degree of financial leverage, and WACC are related to debt-equity ratio.

Financial statements analysis enables us to determine strength and weakness of a firm. This is supported by Tirkey, Khilkhal, 2014(22) in thier study of ratio analysis. The study utilizes secondary data from the website of ONGC ltd to use their annual reports. Different financial ratios are calculated and comparisons are then made. Comparisons are made with standards of ratios, comparison over time period of the same company, comparison with other companies and with industry ratios. The time period of the research is 2010-2013. The result of the study reveals that in 2010, the current ratio was good and afterwards improved in 2013, debt- to-equity shows a trend of up-and down movements. This type of movement is also noticed in the other ratios, but it should be observed that there are upwards trend in the last year of almost the whole ratios calculated, which gives hope to investors who want to invest.

In asserting the contributions of ratio analysis to investment decision, Babalola, Abiola, 2013 (23) researched on financial ratio analysis to reveal profitability and efficiency of firms. The objective of the study is to establish the role accounting numbers play on decision making. Data for the study are from journals, textbooks and other secondary sources. Ratios are the tools of analysis the authors used for their study. They conclude that accounting remains a major information source that cannot be neglected by decision makers who desire adequate financial information about a company before making investment decisions.

The need of harmonizing Indian Accounting Standards with International Accounting Standards is studied by Bhargava, Shikha, 2013(24) in a research paper as to make financial reports issued

by Indian companies globally comparable and acceptable. In the opinion of the authors, the areas where convergence of (ICAI) standards will be impacted by IFRS are mainly liquidity and share capital. They stated that the major areas of differences are: business combination, financial instruments, fixed assets and investment. They conclude that IFRS is fair value way of presenting transactions and will be beneficial for the purposes of international comparability and understanding. And that this will boost economic activities across the globe.

To contribute the discussion on performance of Indian automobile sector, Dharmaraj, Kathirvel, 2013(25) have expressed their view on issues bothering on the Indian automobile sector in an article that analyzed performance of some Indian automobile companies. The authors examine performances of the automobile companies by analyzing their solvency, liquidity, and profitability. The data base is secondary from official directory and databases of Center for Monitoring Indian Economy (CMIE). Fifteen companies are selected for a period of fifteen years (1998/99-2011/2012). Ratio is the main tool used for analysis. Different liquidity ratios, solvency ratios, and profitability ratios are calculated. Some of the companies' liquidity position was weak, and a few others had impressive liquidity. The study also reveals efficiency in the management of assets through the calculation of activity ratios. The authors conclude that the general performance of the companies are good, need to improve as to post improved liquidity, profitability, and efficiency.

Adoption of IFRS affects reported numbers in the financial statements, hence Dimitrios et al, 2013 (26) examined how adoption of IFRS affects ratio computation. This is said to be important because of the increased awareness of globalization and how it affects accounting standards in Athens. Financial ratios are computed from the companies' financial statements for the periods of pre-adoption and post-adoption, then, the results are compared to make the necessary analysis. Standard deviation, kurtosis, skewness are used to test significance of the difference of results, it was found that the difference was not significant at 1% level.

It is made possible by financial statement analysis to know firms that are doing well and those that are not. As it is indicated by the research paper of Lopes, Galdi, 2013(27), that winners and losers are revealed when such analysis is undertaken. This paper follows Piotroski's, 2000(28) by adopting 9 fundamental signals which are capable to separate winners from losers; the difference being that Piotroski (28) work was based on US stock market. The Brazilian stock market poses a different challenge, because of weak compliance with regulations and market efficiency in Brazil

being lower than the US market. This increase in performance of HBM firm's portfolios in Brazil is due largely to the contributions of small and medium size firms in Brazil. The result of the study shows that the selected fundamental signals are associated significantly and positively with increase in subsequent returns.

The impact of IFRS on reported accounting figures cannot be overlooked, as such Terzi, Oktem and, Sen, 2013(29) wrote on how adoption of international financial reporting standards would impact on reported results of firms. They agree that many factors, including economic, political, and social factors influence the practice of accounting in a country. These factors create variation in local GAAPs and International Accounting Standards (IAS). To remove disparities, IASB published IFRS so that countries could adopt them for global business to have better understanding and meaning. 140 companies are selected for the study. Published financial statements of the companies for 2003 to 2005 are sources of data and ratios are computed to determine the impact of adoption of IFRS. The statements are prepared using IFRS and local GAAPs and significance of difference ascertained. The study found out that there were differences in the results when IFRS are adopted and when local standards are adopted. The authors concluded that adoption of IFRS brought about confidence in investors that their investment was exposed to less risk.

A study of financial ratios can explain many things about a firm, including health status and ability to continue in existence. This has prompted Tuvadaratragool, 2013(30) to research on being able to understand warnings about financial distress by studying financial ratios of a firm. The study intends to use ratios to understand status of firms during different economic situations and covers the period from 2003-2008. Quarterly financial statements data are used to eliminate the effect of seasonal/cyclical fluctuations. Comparative ratio and trend analysis are methods adopted for the study and then the logic model is used as benchmarking measure. The study concludes that ratio analysis is able to show signals of business failure.

Essence of financial statements and its benefits to investors is treated by Reddy, 2012(31) in describing purpose of financial statement analysis as a means to provide a valuable insight into the financial condition and operation of business. It helps users in predicting the future means of comparison and evaluation. In this vein, he describes ratio as a measure providing a relationship between variables-both in terms of percentage and quotient. Ratio acts as a yardstick to evaluate financial condition and profitability. Financial statements may not be too useful unless they are

analyzed and interpreted so that the health condition, and performance of a firm can be evaluated and determined. It is on this basis that the analysis, evaluation and interpretation of ratios become very important to an investor in making investment decisions, the author concludes.

Many countries made adoption of IFRS mandatory in their financial system, Chalmers, Clinch, Godfrey, 2011(5) in their study examine whether the content of financial statements improves on adoption of IFRS or not. To achieve this, they assessed both pre-adoption and post adoption data, so that share price and shareholder' wealth could be determined in both periods. They conclude that shareholders' wealth was consistent across pre-IFRS transition and IFRS periods. It also indicates that earnings increased on adoption of IFRS and this ultimately affects the share prices. Evidently, because the adoption of IFRS give perceived credence to contents of financial statements, investors tend to place confidence on the statements for investment decisions, as also indicated by (29).

The usefulness of ratios is amplified by Collier, McGowan, 2010(32) in the study that noted on various uses of financial ratio analysis. The aim of the study is to use actual financial data made available in financial statements for financial ratio analysis. Different ratios are calculated and analyzed using DuPont system of financial analysis. The study shows that it is difficult to apply the principles of financial ratio analysis when the data are from different industries. The study concludes that the difficulty could be reduced if the different industries are subsidiaries of a parent.

The need to consider genetic factors and their influence on investment decisions are examined by Cesarini et al, 2010(33) in 'Genetic variation in financial decision making' to show whether genetic variation can help to explain differences in portfolio risk taking. Data are from the Swedish Twin Registry in a deliberate attempt to determine genetic influence on financial risk taking. The finding of the paper is that about 25% of variation in portfolio risk is as a result of genetic variation, and this also agrees with earlier studies of Kelvin, Erik, 2003; Dohmen et al, 2008; Kimbal, Sahm, Shapiro, 2009(34, 35, 36). The authors conclude that even when faced with similar portfolio optimization problems, the way people allocate resources on available investments significantly differ. They recommend further studies on why individuals differ in their willingness to take risks along many other aspects of financial decision making. .

To note the importance of ratios in investment decisions, D'Amalo, 2010 (7) in his research paper titled 'The Top 15 financial ratios', states that with the help of financial ratios, even ordinary investors could easily make investment decision about a firm. The study states that determining health of firms is a lot easy through ratio analysis, which will guide investors in decision making. The ratios cover issues in respect to liquidity, leverage, profitability, and share price value. According to the author, understanding these ratios will help in providing an idea of how a company is performing in relation to key measures of business success. The study uses the contents of financial statements as source of data. The study concludes that having a clear understanding of ratios make investment decisions credible rather than speculating.

It is valuable to realize that ratio is an analytical tool that could be applied in every sector to aid in investment decisions, Das, 2010(37) examines ratio in the mining sector to assess overall performance of the industry. Five companies were studied and different ratios were calculated, analyzed and interpreted. Ratio being instrument used in the study determined health status of firms. It was concluded that ratio analysis helps in making comparisons of all aspects of a firm and making inter-firm comparisons.

In support of the assertion of Das (37), it was needed to apply ratio in other sectors, as exemplified in pharmaceutical sector by Hossan, Habib, 2010(38). The aim of the study is a performance evaluation of firms in pharmaceutical companies by the use of ratio analysis to guide investors in making investment decision. Some research questions are raised. Secondary data is used and sourced from annual reports of the two companies for 2007-2008. Ratios are calculated and analyzed; comparisons made of the two companies' ratios and then determine which company did better. They conclude that Beximco Pharmaceuticals has better performance than Square Pharmaceuticals Ltd, therefore, advised investors to invest in the company that has a better performance.

Accounting numbers in financial statements are vital during the time of making investment decisions which is supported by Ibicioglu, Kocabiyik, Dalgat, 2010(39) in the study of utilizing financial statements during decision making process. The study recognizes the important role small and medium sized enterprises play in the development of an economy. Aim of the study is to bring to the fore importance of financial statement utilization during decision making process among managers. The general concept of SMEs and unique problems of managing SMEs are discussed.

It highlights how ratio analysis would aid investors and management in predicting future activities of firms. Sample size of the study is 131 managers; from Europe 71 and Turkey 60. The companies are all of the same industry (textile). Structured questionnaire was used to get primary data from the managers. SPSS was used to generate and analyze the data to compute mean and standard deviation. The study concludes that from the perspective of managers, there was rationale for the use of ratio analysis as it reveals important information about a firm than using individual numbers; more so, management can avoid failure by use of ratio analysis.

The effects of financial ratios in relation to size of a firm and cash flow from operating activities is the focus of the study of Martani, Mulyono, Khairurizka, 2009(40). In the study, profitability, liquidity, leverage, market ratio, size and cash flow are taken as proxies of accounting information. Stock returns variables are represented by cumulative abnormal returns and market adjusted returns. The study use data from financial statements for 2001-2006. The study concludes that based on regression, financial ratios, firm size, cash flow from operating activities, all put together, affect market adjusted returns and abnormal returns. The significant variables for this purpose are profitability ratios, and market value ratios. This shows that investors can, on the basis of these ratios make very significant investment decisions. The authors finally posit that in addition to the above findings, investors should undertake fundamental and technical analysis.

The different factors that influence financial decision making, apart from the fundamentals are examined in a study by Monti et al, 2009(41) where they unveil variables that influence decision making. This is aimed at unveiling variables that influence individuals in decision making, decision processes, and investment goals. 80 customers were selected for the study and 15 further subjected to determine how investment decisions are taken by non-experts by applying heuristic method of take-the-best (TTB). They looked at the information requirement of the investor, how to explore for the needed information and time duration within which to gather the information. The authors concluded that in information exploration, frugality and simplicity are key determinants as complicated mathematical data may not provide many benefits.

The impact of stress on decision making is discussed by Porcelli, Delgado, 2009(42) in the research paper which is on 'Acute stress modulates risk taking in financial decision making', the authors study the role played by acute stress in risk taking in respect of financial decision making. Two situations were considered for the experiment. The one was exposed to acute stress indices

and the other without stress indices. The first experiment involves 33 participants and the second experiment had 27 participants. It was observed that decisions are taken under very stressful conditions in most of the time. This also applies to financial decision making, where time may be a critical factor. This will put the stock broker under acute stress because he makes within a very limited time whether to buy or hold or sell. This research tries to show how acute stress could facilitate decision making. Hence, the purpose is to show that stress modulates decision making. In their findings, it shows that acute stress altered decision making by modulating risk taking. Participants exposed to stressor in the first experiment took highly risky decision which may be biased not necessarily as a result of any known computation, while the second group had enough time to do what will be necessary to arrive at an unbiased decision.

It is the view of Riedl, Srinivasan, 2007(43) that financial statements presentation is able to give an understanding of firm's performance. It examines whether special items in financial statements show economic performance of the firm or mere opportunism. If the special items are informational, they reveal economic performance of the firm, or if aggregated and presented as a footnotes as a way to influence the perception of the firm's performance resulting to opportunism. Sample of the study are all firms falling under S&P 1500 during the period 1993-2002, of which 500 were randomly selected for the study. They opine that managers' decision on presentation of special items is informational and useful for investors who may use such information to make investment decisions. The paper concludes that managers' decision to present special items in the financial statements either as separate line items or shown as footnotes will affect how users will place importance on them.

Source of data for ratio analysis is vital to guarantee its credibility, and the Internet is a major custodian for data assessment. Therefore, Khan, 2006(44) researched on disclosure of financial data on Internet: it investigates the nitty-gritty of having financial reports on Internet. It has become common practice for most listed companies to publish their financial statements online (internet). The essence of this is, therefore, to be sure the contents of the statements online are the same as those distributed to the shareholders, which will enhance reliability and acceptance. The research sample is 177. A market driven global standard, Extensible Business Reporting Language (XBRL) which is used in creating financial statements in a structured and computer format is adopted in the study to ensure reliability of data. It is reported by the researcher that some of the companies

do not have accompanying audited report. It is found in the study that there was no uniformity in the presentation of the reports on the Internet and recommends that reports on internet should be verified from the firms.

Availability of financial information plays a key role in investment decision. This is stated by Zager, Zager, 2006(45) in their study where the role of financial information in decision is expounded. Financial information is depended upon to provide investors and other users, information for decision making; and this will prove to be useful if the information is timely, and most importantly reliable. According to the authors, financial statements should not be treated in isolation but all should be considered in decision making process, so that users' need of information for holistic analysis for informed decision will be achieved. The researchers recognized the ratios as important driving force for making business decisions. They concluded that it was essential to have well prepared financial statements, make analysis of them by calculating ratios and make decisions based on the interpretations of the ratios and other variables.

When ratios are analyzed, it gives a fair idea about earnings that could be used to estimate growth of a firm. Based on this, Easton et al, 2002(46) used forecasts of earnings to simultaneously estimate growth and rate of return. Income residual valuation model is used. Secondary data is utilized to realize the objective of the study. They conclude that estimates has higher product of earnings and growth.

The link between capital markets and financial statements is examined in a study by Kothari, 2001(47). This is a review of research papers on the capital markets and financial statements or accounting numbers. His review concentrates around works done between 1980s and 1990s. He focuses on the basic ideas of the different studies, evaluates their findings, hypotheses upon which the studies were carried out, which he believes will lead to unresolved questions. This study treats some basic areas of capital market efficiency, i.e. accounting information (accounting methods and accruals), fundamental analysis, and accounting based-valuations, and value-relevance of accounting information. He calls for more study on market efficiency because of some faulty research design of previous studies. He concludes by calling for concerted efforts to conduct researches in the area of market efficiency, fundamental analysis, and valuation; this is due to unresolved questions.

The research of Healy, Palepu, 2001(48) is based on lack of uniformity of information on corporate disclosure of firms as prevails in the capital market. The study of the empirical disclosure literature made a review of empirical literature on analyzing manager's reporting and disclosure decisions in a capital market setting, thereby identifying key research questions. The study identifies that corporate disclosures are done through financial reports. They opine that some firms engage in voluntary communication thus, arguing that financial reporting and disclosure arises from information asymmetry and agency conflicts. The study concludes that: regulated financial reports are informative to investors, and the degree of informativeness vary systematically with firm and economy characteristics, financial analysts and value in the capital market through their analysis of firms' financial reporting decisions, forecasts of future earnings, and buy/sell recommendations.

The study of Hung, 2001(49) is on accounting standards impacting on relevance and quality of financial reporting for decision making. This is explained by distinguishing how accrual and cash accounting impact on financial report. Sample of the study is 17,743 firms for a period from 1991-1997. It was found out that use of accrual accounting helps investors in assessing firm's values and operating performance than cash accounting.

To adopt Dow Jones interactive to perform financial ratio analysis reveals so much about the firm which is highlighted by Hsu, 2000(50). The author shows how important financial ratio analysis could be used by investors and other users of the financial statements to access the financial health of an entity; especially when they can be easily accessed via the internet. The methodology was class interaction and assignments which made understanding easy. Calculation of different ratios are made; trend analysis, Du Pont analysis, and industry comparative analysis, are displayed to show performances of firms to enable users to make investment decisions. The author also shows by way of case studies how ratio analysis are important for investment decisions. He concludes that via the internet and the use of technology driven environment, financial statements are easily assessed, ratios calculated and analysis made for quick decision making.

Ratio is an important tool available to investors for financial analysis. Bajkowski, 1999(51) posits that to make accounting numbers useful, ratios from it are calculated and analyzed to enable investors determine financial conditions of a firm. The paper groups financial ratios into operating, liquidity, and financial risk. The paper uses data from financial statements to calculate the ratios

for necessary interpretations for decision making among investors. He concludes that financial ratio analysis helps investors to know the past, predict a company's competitive position, financial strength, and profit, and how a company reacts to shift in industry, financial, and economic environments.

The usefulness of financial information is reiterated in a research by Lev, Zarowin, 1999(52). The study explores limitations imposed on investors on use of financial statements to make decisions, and how to extend the borderline. The authors extended their enquiry by considering the accounting for innovative activities. They conclude that financial information is useful for investment decision and that this should be maintained and enhanced for better results.

In a research paper by Dhole, 2013(53), an analytical study is made of how growth affects price in the capital market. It is a descriptive study where data are collected from annual reports of the firms, this is made possible because the companies are listed in BSE. Graphs and charts are used to analyze the data for proper interpretation. The author agrees that there is commendable growth in the sector due to increase in income of the middle-class. The study examines how this growth affects price movement in share price of the companies. Fundamental analysis is employed for the study. The variables chosen that will indicate performance include EPS, P/E, and quantity of earnings ratio. The sampled key players selected for the study are Hero Honda Motors, Tata Motors Ltd, Maruti-Suzuki India, and Mahindra & Mahindra. The study finds out that it is better to invest in a company with good market value, several ratios should be analyzed to be well guided before investment is made, and noise in the market does have effect on market performance of stock which should be noted by investors. The paper then concludes that investors should look at price movements over time to determine the trend; and analysis made to guide the investors.

Performance of a firm is evaluated through the use of ratio analysis, as opined by Oshoke, Sumaina, 2015(54) in their article titled 'Performance evaluation through ratio analysis.' It seeks to determine performance of firms through the use of ratio analysis. This is a descriptive study where data are collected from published annual reports of fifty selected firms listed in the Nigerian Stock Exchange (NSE) from 2009-2013. Pearson Correlation and Least square regression techniques are used for the analysis. The study concludes that ratio analysis was an important tool for performance evaluation.

Study of Singh, Tandon, 2012(55) is a comparative of financial performance analysis between public and private sector banks in India. The banks of choice for the study are State Bank of India (SBI) and ICICI. Period of this study is 2007/2008-2011/2012, and data for the study are from secondary sources. Variables for comparison are credit deposit, interest income, interest expenses, and profit. The study found out that credit deposit was higher in ICICI than in SBI; Net profit margin of ICICI is also higher than that of SBI. The net worth ratio of SBI is higher than ICICI an indication that SBI has utilized its resources more efficiently than ICICI. Deposits in SBI were increasing while it was decreasing in the case of ICICI most of the period, and concludes that customers' confidence will be where their deposits are secured.

Assessing performance of firms is imperative, the nature of the business notwithstanding, hence Okay, Kose, 2015(56) researched on performance analysis of brokerage firms. Brokerage firms belong to the service sector and do not serve a particular sector, rather provide safety net for firms in various sectors to carry on their businesses with reduced fear of risks. The study is aimed at assessing financial performance of brokerage firms by means of TOPSIS analysis. Ratios are the basis of the analysis, which is for the period from 2011-2014; and the type of ratios are liquidity, profitability, operations, and financial structure, an approach that is also adopted by Wang, Lee, 2010; Wang, 2014; Kalogeras et al, 2005(57,58,59). The study concludes that assessing whether a firm is successful or not, can be adequately done by means of calculating various ratios and analyzing them, and this performance appraisal should be on regular basis as to improve performance. Firms are encouraged to develop strategies that will improve profitability and other measuring indicators, the study affirmed.

The study of Chandikolaei, Eshouei, 2013(60) is on performance evaluation in which multi-criteria methods are used to analyze performance of firms in the automotive parts manufacturing sector. The approach is used so that the many criteria could be ranked to determine their weight in influencing decision makers to use them; this is facilitated by additive ratio assessment. The variables of measurement are ROA, ROE, MVA, CVA, and REVA. The study opines that more reliable information is available when multi-dimensional approach is applied to assess financial performance. It therefore concludes that ratios using the FAHP and ARAS remain valuable in performance evaluation, a view assented to by other researchers Amado, Santos, Marques, 2012; Yalcin, Bayrakderaglu, Kahraman, 2012; Balzentis, Balzentis, Misiumas, 2011(61,62,63).

In a research by Lee, Lin, Shin, 2012(64), a comparison is made of financial positions of shipping companies to find relative weights of ratios and rank the companies. The focus of this paper is to explore practical procedures of using ratio analysis to identify signals of financial crisis. Transport system has forward and backward linkages which greatly affect contribution to national economies. A combination of variables and, especially when ranked, reveal financial performance of firms.

## **2.2 Capital/stock market analysis**

It is opined by Angahar, Malizu, 2015(65) on how accounting information is closely related to stock market returns. As they write on 'Relationship between accounting information and stock market returns; on the Nigerian Stock Exchange' in which they examine the relationship between earnings and changes in earnings to stock returns. The study is on 40 companies listed in the Nigerian Stock Exchange. Secondary data is used for the study. Regression analysis are adopted for analysis, correlation analysis, Durbin-Watson Statistics (DW), and Variance Inflationary Factor (VIF) are used for analysis. The study is based on the hypothesis that: Earnings and change in earnings are not significantly related to stock returns in the Nigerian stock market. The study shows a close relationship between accounting information and stock prices, and concludes by advising companies to improve their earnings, as to attract investors.

The view of Angahar, Malizu (65) is reinforced by Folkinshteyn, Meric, Meric, 2015(66) as they reveal how investors behave spontaneously during crashes and after crashes. The study is on major five stock market crashes during 1987-2008 period. This is a period of sudden drop of stock market prices which is followed by a reversal. Secondary data are used for the study. Multi regression analysis is used to analyze the data to form opinion on the result. They observed that smaller firms and those having low market-to-book ratios are riskier and crashed more during the crash period. Investors cannot be said to overact when this situation arises if they demand for higher returns because smaller firms and those with lower market-to-book ratios loose more during the crash periods. They observe that firms with higher current ratio loose less because of stability to absorb shock and meet current obligations; they however conclude that a better view will result if we consider a longer period.

The contribution of Omkhudu, Ibadin, 2015(67) is to address the extent to which accounting numbers reflects a company's share price, so that relevance of accounting information to equity valuation is ascertained. Forty-seven companies are selected as sample for this study, for the period from 1994-2013. To test the hypothesis, regression analysis is adopted as analysis tool. The study provides evidence of value-relevance of accounting information in NSE. According to the study, earnings, cash flow, and dividends are strongly associated with the value of a firm. Management need to pay greater attention to increase earnings, cash flows which improves dividend payout, a situation that will be of interest to investors. To successfully achieve this, management should put machinery in place to control expenses and be consistent in dividend payment, the study concludes.

Stock price is also considered to have great impact on the decision of investors to make up their minds to invest in a particular firm. This has prompted Qi, 2015(68) to investigate relevance of filing returns to determine firms' earnings in the article on 'Stock price discovery in earnings season' and investigates if the time firms file their returns as to determine their earnings affect the stock price discovery process. This is to the fact that there is a time within which firms are allowed to file their returns by regulatory agencies. And investors anxiously expect this earnings announcement so they could make investment decisions. Descriptive statistics of mean and median, percentages and regression analysis are used to analyze the data. The study concludes that the earnings announcement season is very important in the market if made at early season because it leads to price reaction of stock in the market.

The relation between accounting information and share price is crucial when deciding to invest as a high price is likely to indicate a firm having a competitive advantage that will earn more profits in future. This association is made good by Terzunggwe, Rabi, 2015(69), as the authors try to establish a relationship between firm's value in the accounting books and share price in the market. They try to use accounting variables of earnings and dividends to ascertain the value of share, since the value of a firm gives a fair prediction of its performance. Five food firms are selected for the study for the period of 2001-2010. Market price per share is dependent variable while book value per share, dividend per share, and earnings per share are independent variables for the study. The study found independent variables are significantly positive and impacted on the dependent variable, and as such value relevant; and recommend investors to look on the side of food and beverages firms when making investment decision.

There are factors crucial in influencing investment decision, hence Jagongo, Mutswenje, 2014(70) discuss important factors that influence investment decisions as in this article that x-rays factors influencing investment decisions, in order to establish the factors affecting investors' choice to invest, especially in the Nairobi Stock Exchange. Fundamental analysis, technical analysis, psychology, logic, and judgement are vital factors that guide the investor in his investment decisions. The survey research design is employed for the study, using 50 investors from the NSE, selected randomly as sample. Questionnaire is the main instrument used for data collection. This is analyzed using descriptive statistics with the aid of SPSS. The authors reveal a number of factors as those influencing investment decisions of individual investor. They include firm's position and performance, returns and economic situation, diversification and loss minimization, accounting information, third party opinion, goodwill, environmental factors, etc., they recommend a careful study and analysis of the factors and application of knowledge.

In their study, Shehzad, Ismail, 2014(71) wrote on importance of accounting information and how it impacts on stock prices. Nineteen samples were selected for the study and was for period from 2008 to 2012. Regression is used for analysis. The study employs price model to establish relationship between independent variables of EPS and BVPS, on one hand, and dependent variable of Share Price in the market, on the other hand. They showed the significant influence of EPS and BVSP on MPPS. They conclude that the relationship is strong, but that there was a negative influence of BVSP on share market price. Investors are advised to have better knowledge of business and economics while wanting to invest. The authors avow that relevant information influences actions of decision makers.

The study of Khamagha, 2011(72) provides information on reliability of accounting information during pre and post periods of adoption of International Financial Reporting Standards (IFRS). The United Arab Emirates (UAE) Stock Market is the focus of the study. Regression and portfolio approaches are used for analysis. The study concludes that selected accounting numbers are value relevance in Abu Dhabi Securities Market and important for investors. The author affirms that accounting reforms results in more value relevance on the accounting numbers.

In an attempt to have an alternative way to look at the accounting numbers, Lewellen, 2010(73) discusses an alternative way of how accounting number enables investors determine value of a firm before making investment decision. The research design is based on the work of Richardson,

Tuna, and Wysocki (RTW) with an additional burden of providing insight on the devastating effect of transaction cost if let loose, which is the issue of anomalies in the accounting figures. He observes that it is difficult to accurately assess transaction costs. The study makes far reaching observations. It deals on the issue of transaction costs and firm size which provides enough evidence of creating market inefficiency. Risk and mispricing are important in interpreting stock price over time, and asks to assure that predictability of earnings is not effected by risk content of capital market. The author concludes that to moderate these anomalies, investors and creditors should look at the consistency of predictability and risk; infer a firm's cost of capital from observed stock price; consider transaction costs and firm size; etc., before taking a decision.

Can investors depend on stock performance to assess earnings of firms? This is the focus of Dontoh, Radhakrishnan, Ronen, 2007(74) as they investigate to ascertain if stock price could be a good measure for assessing Earnings? The issue here is the relevance of financial statements, because it will bring to question why spend so much energy and resources on the truthfulness and fairness of financial statements such as IFRS. The study period is from 1960-1997. Data was from annual reports. The study found that accounting information when properly analyzed predicts earnings and future stock prices which is of great importance to an investor. They conclude that financial analysis remain crucial in predicting earnings and future performance of firms in the stock market.

While relying on financial statements to be a guide to investment decisions, it is proper to note the misstatements that could be part of the statements; on this Girts, 2007(75) examines common misstatements most times found in financial statements. The purpose of this study is to identify possible common misstatements in financial statements and verify whether Investors take note of them, and they could be as a result of fraud in financial data they analysis. Auditors were interviewed and questionnaire administered on investors. It is found out that there are several areas where frauds are perpetrated in financial statements especially areas where judgment is required, such as provisions, bad debts, accrued expenses, deferred taxes, accounts payables, etc. The study concludes that there are areas of misstatements in financial statements and investors do not often consider the possibility of frauds in the financial data before making investment decisions.

The ability to predict activities in the financial market enhances the possibility of exceptional returns from investment, Bacchetta, Mertens, 2006(76) alludes to this assertion in the research

paper that discusses on being able to predict financial markets. They examine the connection between forecast of more than normal returns and expected errors. Three survey data are indicated in this study, the exchange rate, interest rate and stock return expectations. A three day survey question are collected which reports forecast of about 31 countries used in this research. The study reveals a link between the predictability of more than extra returns and expectation errors. Expectation errors in the foreign market are predictable; in the stock market, expectation errors are predictable by dividend yield, and expectation errors in DOW JONES are predictable by divided-yield while expectation error in NIKKEI is predictable in the short term by interest rate.

### **2.3 Fundamental/Technical analysis**

The performance of stock of firms in the stock market is considered pivotal to investment decision making as it is revealed in a paper by Cohen, Kudryavisev, Hon-Snir, 2011(77) titled ‘stock market analysis in practice: Is it technical or fundamental? The purpose of the study is to investigate differences between professional portfolio managers and amateur investors in the use of technical and fundamental analysis, and a general view of the use of the two approaches in determining the price of buying and selling stocks. Questionnaire was used to collect data through a computerized survey. Likert scale was used to rate responses. The result of the study found that there is more use of fundamental analysis than technical analysis by investors when they make buy/sell decisions. That both professional investors and amateurs make use of the same tool to make their analysis. They also found out that non-professional investors use other tools such as analyst’s recommendation when making a buy or sell decision. It was also indicated that investors generally made use of financial statements and support and resistance line together as valuable tools in addition to technical and fundamental analysis.

A veritable tool to predict future price of a firm considering its performance at capital market over some past period is ‘Technical analysis. This view is expressed by Boobalam, 2014(78) in the paper ‘technical analysis as a way that future performance of company can be predicted based on volume data and price data on daily display in the market’. This, he posits that the current price can be determined based on past movements of the financial commodity. According to him, analysis to predict the price of stock by investors should also involve doing fundamental analysis. The study is on the following objectives: relevance of technical analysis, analyze performance of the selected companies, determine risk and returns associated with stocks, and suggest to investors

to invest or decline. It is a descriptive study using actual weekly price movement in the NSE and information from annual accounts of the selected companies. The study covers the period from Feb 2011 to March 2014. The moving average is used as the tool of analysis.

It is the view of Kotwani, 2016(79) on 'a study on the impact of fundamental and technical analysis on the decision of the investors. Investment decision is critical for investors, that it requires adequate information about the companies. Two analytical tools are generally used to generate information about a company's health, performance as well as predict future share valuation of the company. These tools are fundamental and technical analysis. Fundamental analysis tries to determine per value of shares by paying attention to debt equity ratio, interest and assets coverage ratio, and sales penetration of market share. Technical analysis studies historical movement of stock prices and market behavior so that a trend can be established. It uses different charts to achieve this and usually useful for short term monitoring of stock market activities, the author states. The study is about stock behavior in the market, and how it can predict future stock prices and to ascertain the effectiveness of fundamental and technical analysis in achieving this. This is an exploratory study, using both primary and secondary sources to collect data. He concludes that gender and occupation affect perception of investors on the value of technical and fundamental analysis. The males find them more significant than the females.

In support of the usefulness of technical analysis to determine future prices of stock Hong, Wu, 2014(80) wrote on whether technical analysis can enhance quality of accounting information. The study examines if technical analysis generated stock price can explain the usefulness of fundamental analysis in showing stock price movement. The study has a sample size of 774. Equity valuation model was employed for the study. They conclude that combining technical analysis and fundamental analysis will significantly improve the explanation of stock price movement. The two approaches should complement each other and not as competitors.

The knowledge of the intrinsic value of stock is an added advantage in deciding to invest in a firm and this idea is highlighted by Pandya, Pandya, 2013(81), in the article 'Fundamental Analysis of Indian Automobile Sector' which highlights the importance of determining the intrinsic values of securities in the capital market to aid investment decisions. They did evaluation of the price of security by adopting the TOP-DOWN-Model; whereby factors prevailing in the general economy are considered first, followed by those related to the concerned industry and finally, are factors

related to selected firms. Two leading automobile companies are selected for the study. The following factors are considered in the economy segment: Gross Domestic Product, Inflation, Unemployment and Foreign Direct Investment. The industry factors include a combination of qualitative and statistical data relating to current status, and outlook for the future; and company factors include measuring performance. The authors conclude that fundamental analysis was effective in revealing the contributions of automobile sector to the national economy.

In a study by Suresh, 2013(82), fundamental and technical analysis are used to evaluate intrinsic value of stock in the market with an element of precision. The objective of the study is to show the tools and techniques of the two approaches, and how useful they are to the investor. He posits that the two analyses are main approaches for predicting the fair value of stock in the market. He states that to predict future price of stock, fundamental analysis combines the global economy, macro economy, industry conditions, factors in relation to the company, while technical analysis only concentrates on daily or weekly movement (as the case may be), of prices, time, volume, and width of change to be able to assess stock price. Any variation between the fair value and market value indicates either, over-valuation or under-valuation of the stock. Fundamental analysis is vital in revealing long term trends, value spotting, business acumen, value drivers, knowing who is who in the market. While technical analysis uses charting to show market movements. Then, based on these charts, trends will be established, according to the author. The author concludes that the important factors in investment are risk and returns, safety and liquidity, and there should be a trade-off between all of them. He advised investors to consider both techniques while making investment decision, and make trend analysis their best friend.

Investors are encouraged to explore the benefits of fundamental analysis before taking decision to invest as agreed by Luchs, Maheshwari, Myring, 2012(83) in their research paper that examines ability of fundamental signals to explain future earnings and returns. They argue that this will bring better understanding of relationship between financial statement and firm's performance. Five fundamental signals are used for the data sourced from Compustat Global Vantage Database. The researchers adopted EPS as a benchmark against which to measure future earnings and returns. The study finds out that none of the coefficients of the five signals was statistically significant. In conclusion, the authors posit that Indian financial disclosures are useful in predicting future earnings and returns.

A careful analysis of fundamentals is vital for precise decision making. In the work of Seng, Hancock, 2012(84), the authors in their paper investigate how detailed financial statement forms a critical part of investment decisions. They noted how changes in fundamental signals chosen can provide information on subsequent earning changes. The study adopted global data from 1990-2000 and used the methodology proposed by Piotroski(28). Nine fundamental signals' relationships to future earnings are examined. The study found out that fundamental signals were useful and capable of predicting future changes. It also show that fundamental signals provide additional information beyond that of current earnings changes for explaining future earnings changes. They therefore, concluded that financial statements may actually be more useful than some people choose to believe; and that financial statements are actually useful and relevant.

The researchers, Venkatesh, Ganesh, 2011(85) examine applying fundamental analysis for share valuation in comparison with technical analysis to identify how investors could forecast future market developments so they can invest wisely. They identified two approaches, fundamental and technical analysis. In their view, the two approaches are in contrast. Technical analysis is good for short period study of stock movements while fundamental analysis serves a better tool for long-term study. Primary data was used for the study and a sample size is 100. Descriptive statistics of mean, standard deviation and one-way ANOVA are used for analysis of results. For the purpose of analysis, investors are classified as short-term, mid-term and long-term investors. The result reveals that the short-term investors have 90% tendency for technical analysis, while about 74% agree that fundamental analysis is a potent tool for long-term study for long-term investment needs. And to understand trends, technical analysis is the right tool to adopt. They therefore advised that the tool to be used depends on time frame of study.

The significance of technical analysis in choosing where to invest is crucial and of interest to Zhu, Zhou, 2008(86) who examine the investment significance and importance of technical analysis in relation to its major tool of moving average in their research paper captioned 'technical analysis. Fund managers over the years have relied on the efficacy of technical analysis for investment decisions, however, academics are still skeptical of this view, hence a lot of research work is still being done on it. They adopt a modest approach to examine this controversy by focusing on the most widely used tool of moving average. By this approach, an investor chooses how to allocate his assets between risky assets and riskless assets. How does investor allocate his assets on the

indication of the moving average? The paper advances a framework that justifies the use of technical analysis when applying moving averages. The study suggests that the use of technical analysis will add value to investment.

The strength of the fundamentals to point to returns is reiterated by Witkoska, 2006(87) while discussing use of fundamental analysis to predict future market prices. To determine price, fundamental analysis would combine several factors such as economic, industry, and company analysis. Nine signals are used for the purpose of knowing how investors could rely on them to make informed investment decisions. 187 companies are sampled from listed companies in the Warsaw Stock Exchange for the period 1997-2003, though excluding companies in the services sector. It is found that there is association between fundamental factors and returns. They posit that this result shows fundamental analysis as a good measure of assessing returns on equity and forecasting price.

Impact of fundamental analysis on earnings is investigated by Mohanran, 2003(88). The study identifies two categories of signals to separate low BM firms into potential winners and losers. First are the traditional fundamental signals identified by (28); and second category being the signals that measure stability of earnings, stability of growth, research and development (RD), capital expenditure and advertisement. A composite score was created and their performance compared over a two year portfolio formation period. It finds out that the modified fundamental signals are able to separate winners from losers among low BM firms, and that potential earnings are correlated to current signals. It concludes that these fundamentals can show effectiveness even in a sample of growth firms.

Technical analysis has proved to be a veritable tool for assessing performance of the firm as revealed by Lo, Mamaysky, Wang, 2000(89) who investigate an orderly and organized way of technical pattern by adopting nonparametric Kernel regression in their article. The study tends to break the gap between technical analysis and quantitative finance by deploying more acceptable methods to study technical analysis so that its value can be appreciated. An algorithm is constructed for this purpose. This algorithm is applied to a return of a single security. The research is for 1962-1996 using secondary data of security prices. The study found that when technical patterns are adopted over time, will provide very useful information that investors will forecast

future prices of stock. They conclude that their method would make technical analysis more valuable if algorithm was used in its application.

Fundamental Analysis gives clear picture of signals that should guide investment decision in anticipation of earnings and price. The study of Abarbanell, Bushee, 1997(90) is in support of this view and they observed that all the signals do not perform efficiently hence, cannot all be relied upon by investors when assessing performance of securities. To this end, the analyst forecast cannot fully be relied on when there is detail data from the financial statement, more so, macroeconomic variables such as Inflation, GDP forecast could be erroneous. Based on the associations between signals and earnings, there is economic justification for analysts and investors to rely on some, but not all, of the signals as identified by (28).

#### **2.4 Value-relevance of accounting numbers**

To express their view on the value relevance of accounting information as it relates to intangible assets, Abubakar, Abubakar, 2015(91) accede to the fact that a large chunk of intangible assets not reported in balance sheet cast doubts in financial statements satisfying information needs of users, especially in high-tech companies. The authors investigate the association between accounting information announcement and share price. In the study, correlation research design is employed using Edward-Bell-Ohlson (EBO) model. A sample of 9 firms in Nigeria are selected for the study. Annual reports of firms from 2005-2011 are used for the study. And for the purpose of analysis, the Ordinary Least Square Regression is used. They found that there was more value-relevant when intangible assets are recognized in the balance sheet and accounting earnings are more value relevant when expensed in the income statement. More so, they opine that there is reliability of measurement and recognition of intangible assets. The authors therefore, recommend that regulators and standards setters should broaden the scope of IAS 38 to include internally generated intangibles.

Value of financial information is pervasive and relevant to all sectors and in all climes. This is reiterated in an article by Oshodin, Mgbame, 2014(92) where a comparative study is undertaken of two sectors; banking and petroleum. Twenty companies were studied, ten from each sector for a period from 2007-2011. Multiple regression and least square are used as statistical tools. The study found out that of the independent variables considered here, earnings was more relevant than

the other variables. The authors therefore, conclude that accounting information is of importance in determining value of companies in both sectors.

In his contribution to the debate on value-relevance literature, Chandrapala, 2013(93) studies value relevance in terms of ownership concentration. Sample of the study consists of 924 firms grouped as concentrated ownership firms and non-concentrated firms for a period from 2005-2009. The firms were from the Colombo Stock Exchange (CSE), which were of course listed. They were selected on the basis of capitalization. However, 42 firms were excluded because their standard residuals were greater than 4 and left with only 882 firms as sample for the study. The idea of the authors was to establish a relationship between market values of equity and accounting variables as to determine the value relevance of accounting information. It was concluded that value relevance is below average. As was also indicated in previous study, but that in terms of ownership concentration, the concentrated firms have value relevant information than ownership of non-concentrated firms. The study concludes that large firms have higher level of earnings and book value information than small firms. This study also reveals that concentrated firms have more and better information of earnings than un-concentrated firms

To know the value of a firm is enhanced with clear knowledge and understanding of accounting information. This is consented to by Abiodun, 2012(94) in his paper that highlights the significance of accounting information on company values. The author establishes a statistical link between financial information and corporate value of firms. Forty firms are selected at random from firms listed at the Nigerian Stock Exchange (NSE), using their published financial reports as source of data for the period from 1999-2009. Price regression model, logarithmic regression, returns regression are used for analysis. The author concludes that earnings is more significant in determining value than book value which is less current for use by investors. He then recommends that firms should invest more on intellectual property to drive earnings, and pursue effective corporate governance to reduce loss through litigations.

In some climes, many believe on luck and superstition in whatever they do, including making investment decisions. This view is expressed by Hirshleifer, Jian, Zhang, 2012(95) while describing attitude of Chinese investors who mostly depend on numerological superstitions before investing. They state that in China, certain dates are said to be unfavorable for listing which is highly superstitious. It means that decision to invest is more of superstition than analysis of

accounting numbers. The study concludes that investors' ideas do matter within the restricted domain of superstition.

The research paper of Jamshidinavid, Chavoshani, Amiri, 2012(96) examine the relationship between personality traits and demographic traits in respect to financial behavior of investors. They opine that psychological factors of investors will influence their actual decision-making, which cause irrational behavior. The study is a descriptive one, based on cross-section analysis through the use of Structural Equation Modeling (SEM). A sample of 172 men and 43 women are used for the study; under different age groups and educational qualifications. Questionnaire was a major tool used for data collection. Two hypotheses are formulated and tested. The result show that personality traits and demographic characteristics affect investment decisions. They conclude that investors should compare stock market prices with their own predictions before any investment could be made, and that market information should be properly and carefully analyzed.

Value relevance continues to generate interest among financial analysts as Kallapur, Kwan, 2001(97) in their article examine reliability of the numbers from balance sheet, by selecting 33 firms for study. These assets are subject to managerial discretion which are in the books as result of business acquisition. The firms were sourced from Extel Company Analysis, a family of data bases. Annual reports of the firms are used to determine the valuation of the firms. Descriptive statistics of coefficient of variation was used for analysis. They conclude that brand values are value relevant, the manager's desire to over-state notwithstanding. They agree that there is correlation between returns and the first announcement of brand assets value.

The debate about value relevance reveals its importance in finance and Karumarathne, China, Rajapakse, 2014(98) express their view on relevance of financial information. The paper investigates value relevance of financial information in relation to earnings and cash flows in stock prices, and also considering size of the firms. 100 firms are selected from all sectors except services sector over 5 years from 2004-2008. The firms are from the Colombo Stock Exchange (CSE). Regression is applied for analysis. It is stressed that value relevance is pre-requisite for a well-functioning capital market and an economy. The authors note that price is appropriate when it is aimed at ensuring relevance of accounting measures, whereas returns are more appropriate when the objective is to explain changes in value over a specified time. The study found out earnings,

book value, and cash flows are relevant. They also found out that earnings is the most relevant variable of all. The study concludes that there is relationship between accounting numbers and share price

Value relevance and how it influences investors' financial decisions is examined by Ragab, Omran, 2006(99) in assessing relevance of accounting information in influencing investors in decision making. Period of study is from 1998-2002. Valuation models linking price and returns are carried out. The authors conclude that accounting information is relevant in determining price and returns which should be of interest to investors.

Value relevance is examined by Chen, Chen, Su, 2001(100) in relation to the Chinese stock market. The study period is from 1991-1998. And reliability, timeliness, accuracy of financial reporting plays important part in ensuring the efficiency of the capital market. Two research models are employed in the study: the return model and the price model. They contend that the financial reporting from the Chinese capital market may not be value relevant, because of certain prevailing situations such as having traditional systems and regulations that are traditional rather than market-oriented, and most of the listed firms being state-owned. The study opines that financial reporting is relevant in determining market efficiency and earnings.

Information provided in financial statements is capable of separating winners from losers as to enable investors make valuable investment. This is the view of Piotroski (28) in an article that explains value investing by use of financial statement information. The paper examines the position of investors in making value investing, using simple fundamental analysis heuristics as to determine which way to go. High-book-market firms have a tendency of thin following by analysts, which make investors shy away from such firms. Consequently, this lack of coverage, analysts' forecast and stock recommendation will be plagued by low levels of investors' interest. These firms are also faced with shortage of most 'informal' information dissemination channels. In absence of any other source of credible information, the financial statements stand out as the most available and reliable source of information. He therefore affirms and concludes that financial statements remains a reliable source of information to investors.

Relevance of accounting information continues to attract discuss as in a study by Francis, Shipper, 1999(3). The research spans from 1952-1994. Their goal was to test the efficacy of earlier studies

that accounting information is relevant for decision making. The study concludes that financial statement is still relevant in making investment decisions.

## **2.5 Indian automobile sector analysis**

In the paper of Dharmaraj, Ashok, Preetha, 2016(101) titled ‘factors determining profitability in Indian automobile sector’ performance of the industry by examining its profitability and analyze various factors responsible for growth in profitability is undertaken. Secondary data is used for the study from Centre for Monitoring Indian Economy (CMIE), Capital Line plus (CLP), Journals, Magazines, websites and Dailies. The period covered is fifteen years 2000-2014. Purposive sampling is used to select 16 automobile companies for the study. Some fundamentals are the basis for assessing performance of the companies. Multiple regression analysis is adopted by the author for data analysis. It found that performance are highly dependent on operating ratio, and that the burden of interest is a threat to profitability. Hence, the authors suggest a study to improve productivity and efficiency to increase profitability.

The growth and export potential of the Indian automobile sector is a welcome discuss, considering the contribution of the sector to national growth, as highlighted in the work of Jatinder, 2014(102) on ‘India’s automobile sector: Growth and export potential’, where the author examines the effect of de-licensing the automobile sector of the Indian economy and how that has impacted export trade. The author seeks to understand the growth development in the automobile industry, and the export potential since the regime of policy change in favour of liberalizing the sector. The author recognizes the interventions of the government at different time periods to boost the sector. Secondary data are utilized to achieve the purpose of the study from government sources, and Society of Indian Automobile Manufacturers (SIAM). The study reveals that the shift in policy to support foreign participation brought about tremendous growth in the industry and to increase in export trade and according to the author, shows effectiveness of government policies which are aimed to grow the economy.

In a study by Srivastava, 2014(103), developmental stages of the auto sector are highlighted. The study covered the period between 2009 and 2013 and it is to determine the health and general performance of the automobile sector in India. The researcher recognizes that the industry has a bright prospects that there are many foreign companies in the market. Key financial ratios are

computed, analyzed and interpreted. The study concludes that the Indian auto industry has been on the path of growth in terms of production, sales, contribution to GDP, FDI, employment generation, etc. It also states that there is further growth potentials in the industry whereby investors are advised to invest in the industry, especially the selected companies.

Foreign Direct Investment (FDI) is an important factor to the growth of Indian automobile sector. This is asserted by Bhasker, 2013(104) and it has led to development of the automobile sector coupled with government favourable policies. Three auto companies are selected for the study. It is a descriptive study and secondary data are mainly used and sourced from the databases of the companies. Data analysis is made using the top-down approach. They classified automobile vehicle as four wheelers, three wheelers and two wheelers. The paper concludes that the sector contributes significantly to the growth of GDP, in reduction of unemployment, and there has been great improvement in FDI as a result of the development in the automobile sector.

It may be interesting to note that looking at production and sales figures of firms could be helpful in deciding whether they are viable or not, as such Gaddam, 2013(105) discussed in his research the Production and Sales trend of automobile sector in India. The author examines the trend of two important indicators of growth in a sector-production and sales. He states that the sector has been growing in terms of these indicators since in the 1990s, this is as a result of a rise in demand due to more Indians coming into the 'middle-class group.' The production and sales figures appear satisfactory when you consider the stiff competition in automobile sector globally. Two wheelers is dominant sector in stimulating this growth, being followed slowly by the commercial and passenger vehicles. The three-wheelers sector is also part of this growth trend. Moreover, the Indian automobile industry has added new dimension to its brands by getting into SUVs and MUVs. The growth trend agrees with the work of Roy, 2008; Sarangi, Bano, Pant, 2014(106, 107). The paper concludes that despite this growth trend, Indian automobile industry has potential for growth; he advised the industry to work hard to overcome the myriad of challenges facing the industry like multiple taxes, high import duty on imported raw materials, fuel-saving technology, environment friendly products etc., for their brands to compete favorable at global arena.

In this research paper by Roy, 2012(108), he examines performance of the Indian automobile sector from the perspective of econometrics. It assesses the economic performance of the industry and finding out factors responsible for the capacity utilization in the industry over the years. The

rate of expansion in output and capacity utilization started to improve gradually after delicensing in 1991 and opening up the sector for automatic FDI. Government economic reforms also acted as catalyst to the growth of the automobile industry. Production and sales have been on the rise, with little setback during the global crisis of 2008/2009. The author notes that there are some strengths and weakness on the part of the sector, saying that the areas of strength if properly harnessed, will upset the areas of weaknesses. The sector is expected to retain low cost that enhance competitive position with other countries.

Automobile sector performance is crucial in this study to be able to ascertain the trend of performance. In the paper of Shinde, Dubey, 2011(109), performance of the key players are studied, which is done according to the different segment of the sector. The past and present trends were used for the study. The paper also agreed with Krishnaveni, Vidya, 2015(110) that delicensing in 1991 helped to spur the growth in the sector. Key factors influencing and driving growth in the automobile sector were also highlighted. The paper took note of the SWOT analysis of the sector, and concludes that the industry recorded a great growth during the last decade which needs to be sustained if the critical areas of the SWOT analysis are taken care of by the sector players and watchers.

## **2.6 Japanese automobile sector analysis**

In a study conducted by Aoki et al, 2011(111), continuity and change in Japan's automotive sector is examined to highlight changes that had occurred in Japan's corporation system and how that affected the automotive sector, being a leading sector in the country. This paper is a product of the authors' visit to Toyota and a few other automotive system suppliers to assess how the sector is doing and hope for the future. Japan Corporation system is unique. Toyota was adjudged the world's best car assembler because of its successes in the sector surpassing Ford and General Motors. Its production rose in 2008 to 8 million vehicles, but nose-dived in 2006 to 6 million. The impressive performance of the sector was even visible in the global turbulent year, 2008. The authors observe that there had been unprecedented growth since it started overseas manufacturing, and the number of cars manufactured overseas far exceeds local production by car assemblers in Japan. They found out that the Association of Japanese Employers were calling for a shift from the employment system, a deregulation of the sector to allow for competitiveness. Plants visited rely mostly on temporary employees to stabilize production, which has affected the once cherished

quality of Japan products. The paper concludes that most corporations still adopts the traditional system because of its uniqueness and roadmap to quality products. They contend that competition from emerging economies of China and India may make Japan to consider the free market system, as we continue to watch how the drama unfolds.

The unique system of the Japanese automobile sector is examined in Kumar, Yamnaoka, 2007(112) which considers cost effectiveness in Japanese automotive sector on what is termed 'closed loop supply chain'. The authors adopted the system dynamics (SD) modelling designed to analyze the supply loop chain in the Japanese automotive sector. The study found out a potential growth in Japan economy. This will improve the economy of those involved in recycling used car business positively, and opportunities for different categories of those in the automotive sector, even the government will net additional revenue from taxes. They suggest that the government should take practical steps to expand the process of recycling, reuse of old cars to have new components and have them as raw materials. The display of items in an orderly manner will ensure quick performance assessment to determine the health of a firm.