Chapter II

Review of Literature
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Review of related literature is the first task of a researcher to decide on a specific problem for investigation. It facilitates the investigator to identify the research gap, if any, in order to create new ground in research.

Review of related literature helps to gather up-to-date information about the area in which he/she intends to study. It also gives a valuable guidance in defining the problem, recognizing its significance and selecting data-gathering devices, appropriate study design, source of data and suitable analysis of data. The methodology of previous researchers may also be compared with that of the present study.

Best and Kahn (1993) define review of related literature a “a brief summary of previous research and the writings of recognized experts provide evidence that the researcher is familiar with what is ready known, and with what is still unknown and untested. Since effective research must be based upon past knowledge, this step helps to eliminate the disparities of what has been done, and provides useful hypothesis and helpful suggestions for significant investigations.

The review of related literature is an exacting task, calling for a deep insight and clear perspective of overall field. It is a crucial step which invariably minimizes the risk, helps to select a topic, helps to know the trial and error activities that are oriented to approaches already discarded by the previous investigations and also
helps to find out erroneous findings based on a faculty research design. It promotes
greater understanding of the problem and its aspects and ensures the avoidance of
unnecessary duplications; it provides comparative data on the basis of which to
evaluate and interpret the significance of one’s findings and, in addition, it
contributes to the scholarship of the investigator.

The published literature is a fruitful source of information. Not only does it
present suggestions made by previous investigators and writers concerning the
problem in need of investigation, but also stimulates the research worker to devise
hypothesis of his own. As he reacts to designs, findings and conclusions of other
investigations, he can get insights which he can incorporate into an improved
research design capitalizing on the success and the errors of others, certainly a more
intelligent approach to a problem especially one as broad as thesis or dissertation
than in imagining that one is born equipped with the radar system that will guide
him unerringly on target and, at the same time, guard him against pitfalls. No
experienced researcher would think of undertaking a study without acquainting
himself with the contributions of previous investigations.

Without a review of related literature one cannot proceed in his/her research
study with firm ground and justification. Therefore, a review of previous studies in
related area of the present study is attempted and presented in this chapter.

A large number of empirical studies have been conducted about the
determinants of stock prices. In this section, some of these studies have been
reviewed. Factors affecting stock prices have been studied from different points of view. Several researchers examined the relationships between stock prices and selected factors which could be either internal or external. Some studies have concluded that company fundamentals such as earning and valuation multiple are major factors that affect stock prices. Others indicated that inflation, economic conditions, investor behaviour, the behaviour of the market and liquidity, are the most influencing factors of stock prices. In addition, the effect of interrelated factors has been covered in some other studies.

Brock, Lakonishok and LeBaron (1992) tested moving average trading rules using the Dow Jones Index from 1897 to 1986. Their results showed that variable moving average trading rules do not have predictive ability for future prices and that the returns generated using these rules are greater than those generated by a buy-and-hold strategy before accounting for transaction costs.

Gallant, et al. (1992) investigate price and volume co-movement using daily NYSE data from 1928 to 1987. Non-parametric method was used throughout to avoid bias due to specification error. Examining the contemporaneous price-volume relationship generally large price movements were associated with unusually high volume, leading to increases in both the mean and variability of the volume. Both

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functions were fairly symmetric, indicating that market declines have the same effect on subsequent volume as market increases. Lagged volume impact on current price changes and volatility indicate that abnormally high and low volumes are associated with slightly increased future price volatility.

Campbell, Grossmanond and Wang (1993) claim that price changes due to high volume tend to be reversed over time. Value weighted index of stocks traded on NYSE and ASE during July 1962 – December 1074 and January 1975 until September 1987 along with 32 large capitalized stocks were analyzed. The hypothesis is based on the idea that non-informational investors sometimes have a need to sell off assets for external reasons unrelated to the valuation of their holding.

Mukherjee and Naka (1995) investigated the relation between Tokyo stock prices and six macroeconomic variables using a vector error correction model (VECM). Their study covered 240 monthly observations for each variable in the period from January 1971 to December 1990. The results of the study showed that the relationship between Tokyo stock prices, the exchange rate, money supply, and industrial production is positive, whereas the relationship between Tokyo stock prices and inflation and interest rates is mixed.

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Bhoj and Dhal (1998)\textsuperscript{11} provided reasonable evidence of integration between money market segments, the gilt market segments and exchange market segment. Thus different studies about the integration/market efficiency between different financial markets reflect divergent views on their interrelations in price movements.

Zhao (1999)\textsuperscript{12} studied the relationships among inflation, output (industrial production) and stock prices in the Chinese economy. The study employed monthly values covering the period from January 1993 to March 1998. The results indicated a significant and negative relation between stock prices and inflation. The findings also indicated that output growth negatively and significantly affects stock prices.

Ayodeji (1999)\textsuperscript{13} investigated the weak form efficiency of the Nigerian stock market using correlation analysis. The results of his study support the evidence of weak form efficiency in the sense that technical analysis and other security analysis based on historical prices appear to be valueless in Nigeria.

In order to test the informational efficiency of the Malaysian stock market, Ibrahim (1999)\textsuperscript{14} investigated the dynamic interaction between stock prices and seven macroeconomic variables covering the period from 1977 to 1996. The author


used cointegration and the Granger causality test. The macroeconomic variables include the industrial production, consumer prices, M1, M2, credit aggregates, foreign reserves and exchange rates. The results strongly suggest informational inefficiency of the Malaysian market. In other words, there is cointegration between the stock prices and these macroeconomic variables. The study demonstrates that stock price movements anticipate variation in the industrial production, money supply, and the exchange rate while they react to the deviations from long run path of consumer prices, credit aggregates, and foreign reserves.

Ratner and Leal (1999)\textsuperscript{15} tested ten variable length moving averages in the emerging markets of Latin America and Asia. The results showed high predictive power in Taiwan, Thailand and Mexico. Other markets did not show strong support for these trading rules.

Subrata Kumar Mitra (2000)\textsuperscript{16} tested the profitable trading ability of moving average trading rules for the Indian market (BSE-Sensex) up to 1999 with short-selling being allowed. She used the absolute cross-over between solely the closing price and a moving average (for different moving averages) as the basis for taking buy and sell decisions. She analysed the returns for different transaction costs and observed that only the brokers and institutional investors who incur very low


transaction costs can use the moving average to beat the market post transaction costs.

Maysami and Koh (2000)\(^{17}\) examined the dynamic relations between macroeconomic variables and Singapore stock markets using the vector error correction model. The macroeconomic variables are exchange rate, long and short term interest rates, inflation, money supply, domestic exports, and industrial production. The data were seasonally adjusted and covered the period from 1988 to 1995. The study showed that inflation, money supply growth, change in short and long term interest rates, and variation in exchange rates did form a co-integrating relation with the changes in Singapore’s stock market levels. This study also examined the association between the American and Japanese stock markets and the Singapore stock market. Results showed that the three markets were highly co-integrated.

Gunasekaraga and Power (2001)\(^{18}\) analysed the performance of technical trading rules for four emerging countries: South Asian capital markets (the Bombay, the Colombo, the Dhaka and the Karachi Stock Exchanges). They found that technical trading rules have predictive ability in these markets. The results suggest that the employment of these techniques generates excess returns to investors in South Asian markets.


According to Gervis, Kaniel and Mingelgrin (2001)\(^{19}\) a high volume return premium exists in stock prices as holders of a particular stock will on the average tend to be the most optimistic about its future price. This is specially true if taking short positions in the stock is not possible due to institutional constraints on short selling. Also the high volume return premium does not depend on how trading volume is measured: share volume dollar volume, detrended volume and firm specific volume all yield the same results.

The empirical study undertaken by Ralph and Eriki (2001)\(^{20}\) on the Nigerian Stock Market examining the relation between stock prices and inflation provides a strong support for the proposition that inflation exerts a significant negative influence on the behaviour of the stock prices. Moreover, the study showed that stock prices are also strongly driven by the level of economic activity measured by GDP, interest rate, money stock, and financial deregulation. On the other hand, the findings of the study showed that oil price volatility has no significant effect on stock prices.

Pant (2002)\(^{21}\) investigated whether any causality exists using both linear and nonlinear causality tests between Nifty returns and volume. The period of study is from January 1996 to August 2002 with three sub periods. Linear tests show bi-


directional causality during the period when rolling settlement was either not introduced or introduced in a limited manner. The causality in either direction is not observed for the period when rolling settlement is for all the time periods, suggesting that non-linear effect are not significant in NSE and linear effects could be sufficient for predicting causality.

Al-Qenae et al. (2002)\textsuperscript{22} made an important contribution by investigating the effect of earning and other macroeconomic variables on the stock prices of Kuwait Stock Exchange during the period 1981-1997. The macroeconomic variables examined were gross national product (GNP), interest rate, and inflation. The study found a significant and higher sensitivity of the estimated earning response coefficient (ERC) with the leading period returns. Moreover, both inflation and interest rate have negative and statistically significant coefficients in almost all cases on stock prices while GNP has positive effect but it is only significant in a certain (high) return measure interval. This study supports the idea that investors in KSE are able to anticipate earnings and suggests that the KSE market exhibits some features of semi-strong efficiency (i.e., a scenario in which stock prices incorporate all publicly available information).

Annuar (2002)\textsuperscript{23} notes, “In an efficient market, the prices of stock reflect a rational assessment of the underlying value of stock. On average, you will make necessary money but the money you make is just enough to cover the risk you have assumed”. If the market is efficient, the new information is reflected quickly into market prices.

Dimitrios Tsoukalas (2003)\textsuperscript{24} examined the relationships between stock prices and macroeconomic factors in the emerging Cypriot equity market. In this study, the author used the vector autoregressive model (VAR). The macroeconomic factors examined in this study, which covered the period from 1975 to 1998, were exchange rate, industrial production, money supply, and consumer prices. The results of the study indicated a strong relationship between stock prices and macroeconomic factors. According to the author, the strong relationship between stock prices and exchange rate should not be surprising, since the Cypriot economy depends for most part on services such as tourism and off-shore banking. He also noted that the relationships between stock prices and industrial production, money supply, and consumer prices reflect macroeconomic policies implemented by Cypriot monetary and fiscal authorities.


Thenmozhi and Sony Thomas (2003)\(^{25}\) examined the expiration-day effect of CNX Nifty derivates on the price, volatility and volume of underlying index for a period of thirty nine months starting from June 2000. They found that expiration of derivative contracts leads to higher market trading volume and increased market volatility, but not any abnormal pressure was found on stock prices on expiration-day. However, contrary to international evidences in India volatility was found spread over the expiration-week instead of expiration-day.

Ibrahim (2003)\(^{26}\) applied cointegration and VAR modelling to evaluate the long term relationship and dynamic interactions between Malaysian Equity Market, various economic variables, and major equity markets in the United States and Japan. The macroeconomic variables used are real output, aggregate price level, money supply, and exchange rate. The study yielded two main findings: first, the Malaysian stock price index was positively related to money supply, consumer price index, and industrial production. Second, it was negatively linked to the movement of exchange rates.

Groenewold, Tang and Wu (2003)\(^{27}\) examined the weak market efficiency in Shanghai and Shenzen stock exchanges for the period 1992-2001. Their study


found evidence of departures from weak efficiency in the form of predictability of past returns.

Cajuerio and Tabak (2004) tested the EMH for China, Hong Kong and Singapore by means of the long memory dependence approach. They found that Hong Kong was the most efficient market followed by Chinese (Type A) shares and Singapore and finally Chinese (Type B) shares. They also suggested that liquidity and capital restriction might play a role in explaining results in EMH tests.

Chaudhuri and Smiles (2004) tested the long run relationship between stock prices and changes in real macroeconomic activity in the Australian stock market in the period from 1960 to 1998. The real macroeconomic activities included real GDP, real private consumption, real money, and real oil price. The results of their study indicate that longrun relationships between stock prices and real macroeconomic activity. The study also found that foreign stock markets such as the American and New Zealand market significantly affected the Australian stock return movement.

Damale, Karmakar and Kawadia (2004) based on the study of market integration in the Indian stock, Bullion and Forex markets, found some degree of

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price integration in the three markets. They used distributed lag model, estimates of compound growth rate and coefficient of variation and multiple regression estimates to study market integration between these three markets.

Coondoo and Mukherjee (2004) measured and analysed the volatility of international equity investment in India covered by the data from January 1999 to May 2002. For the purpose of their study, they used a new technique of analysis that defined and examined three different aspects of volatility – strength, duration and persistence. Their results also suggested that the strength and the duration of volatility of stock market returns were more or less similar to those of the foreign institutional investors flows.

Norli (2004) investigated the randomness of Bursa Malaysia share price movements after the currency turmoil 1997. He looked at the behaviour of Malaysian stock after the currency turmoil and the conformity of the Malaysian stock market at the time to the weak form of EMH. The results of the study seemed to support that the Malaysian market was at least weakly efficient.

Hammoudeh and Aleisa (2004) had studied the relationships among Gulf Cooperation Council (GCC) stock markets and NYMEX oil future prices for a

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period from 1994 to 2001 as the oil exports largely determine foreign earnings and governments’ budget revenues and expenditures. Thus, they are the primary determinants of aggregate demand which influences corporate output and domestic price level, which eventually impact corporate earning and stock prices. It was found that the index of the UAE stock market represented the country with the next highest link along with Bahrain after the Saudi Arabia market.

Griffin, Sultz and Nardari (2005)\textsuperscript{34} investigated the dynamic relationship between market wide trading activity and returns in 46 markets. The study was conducted between January 1993 through June 2003 with daily and weekly market returns and total traded value denominated in local currency. Many stock markets exhibit a strong positive relationship between turnover and past returns. The relation between returns and turnover is more statistically and economically significant in countries with restrictions on short sales and where the allocative efficiency of the stock market is weaker. According to them uninformed investors trade more following positive returns because they infer news from such returns and are more drawn to participate in the markets as a result of such returns.

Tambi (2005)\textsuperscript{35} analysed return volume relationship for the period April 2000 to March 2005 for NSE. Granger test showed a bi-directional causality between return and trading volume. Further, the lead lag relationship confirmed that

\textsuperscript{34} Griffin John M. Rene Sultz and Federico Nardari, (2005), “Do investors trade more when stocks have performed well? Evidence from countries”, November 2005.

trading activity was more for positive change in prices than for negative changes and there was more strong causal evidence from volume to return.

Docking and Koch (2005)\textsuperscript{36} in their study to assess investor reaction to dividend increase or decrease showed that dividend change announcements elicit a greater change in stock price when the nature of the news (good or bad) goes against the grain of the recent market direction during volatile times. First, announcements to raise dividends tend to elicit a greater increase in stock price when market returns have been normal or down and more volatile. However, this tendency lacks statistical significance. Second, announcements to lower dividends elicit a significantly greater decrease in stock price when market returns have been up and more volatile.

Lee (2006)\textsuperscript{37} employed two types of aggregate index data: annual Dow Jones industrial average (DJIA) index data for the sample period 1920–1999, and annual Standard and Poor’s (S&P) 400 industrial index data for the sample period 1946–99. The study found that investors overreacted to non-fundamental information but under-reacted initially to fundamental information (dividend, book value and earning), with no significant reversal associated with fundamental information in the long run. The study also found that the residual income model provided a better valuation than the dividend discount model.


Niladri Das and J.K. Pattanayak (2009)\textsuperscript{38} examined the various research studies undertaken in the Indian and international context highlighting the effect of various fundamental factors on the behaviour of the stock market. The authors tried to identify the critical variables which had a significant effect on stock price movements and influenced the entire market's movement. The analysis showed that higher earning power, Returns on Investment (ROIs), growth possibility and favorable valuation had a positive impact on the share price and stock market movement, while higher risk and volatility had a negative impact. These factors could be used as major analytical tools by investors, corporations and brokers to make rational and intelligent investment decisions.

The present studies covers the review of literature from various journals, magazines and published and unpublished sources, which is related to the statement of the problem of the study and analysis of monthly average share prices of select cement industries, money flow index of share prices, trend analysis of mean share prices and stock market indices BSE Sensex and NSE Nifty, growth of share prices, quarterly moving average of share prices, analysis of factors influencing share prices, macro economic indicators, gold and silver rates, market indicators, exchange rates, foreign investment inflows and interest rates. The past researcher on share price movement of companies have never used these kinds of tools for

analysis. The study is unique in this aspect and pioneer in analyzing the structure of five prominent cement companies.