CHAPTER 6

OBSERVATIONS, SUGGESTIONS, CONCLUSIONS AND SCOPE
FOR FURTHER RESEARCH

6.1 OBSERVATIONS AND SUGGESTIONS

“Discovery commences with the awareness of anomaly, i.e., with the recognition that nature has somehow violated the paradigm-induced expectations that govern normal science.”

Thomas Kuhn

Thus, the most interesting question for investors and policy makers is what the knowledge obtained from this study can contribute for the future investment science and what policy decisions need to be taken in future. The presence of trading strategies which are capable of ensuring abnormal returns and which can persist in doing so, would be very confronting to the proponents of the efficient market hypothesis. But, before strategizing for opportunities, it is necessary to understand the cause of occurrence of these anomalies at first place. In literature review, several possible causes were stated for occurrence of anomalies such as tax-loss hypothesis, settlement procedures hypothesis, portfolio revisions of retail and institutional investors hypothesis, asymmetric information hypothesis and many more.

The following are some of the important revelations of the study:

a Integration of the markets is observed to be happening at a rapid pace and trading strategies adopted have to consistently revised and retested as returns are observed to be not stable and consistent over the entire study period and sub-periods. Thus investors should be aware of the changing environment in the financial markets throughout the world.

b Day-of-the-week effect was observed to be present in the Indian capital markets. Day-of-the-week effect is observed in majority of the indices, and thus investors can make abnormal profits by adopting appropriate strategies. In case of the broader
indices namely BSE Sensex, CNX Nifty, CNX Nifty Junior, BSE Mid-cap, BSE Small-cap, and NIFTY Mid-cap index considering the recent periods, buying on Friday, holding on Monday and selling on Tuesday strategy would fetch high returns for the investors. Whereas in case of sectoral indices, buy-sell strategy would be profitable i.e., buying on Monday and selling on Tuesday strategy would yield high returns. Only in case of S&P BSE Teck, Bank Nifty and CNX Infra indices, buying on Wednesday or Friday and selling on Tuesday would yield higher returns.

c It is found true that the, investments were observed to be high on Mondays causing Monday effect in the pre-rolling settlement period, and after the introduction of rolling settlement, Monday effect is insignificant. In the recent times after 2002, Wednesdays have highest returns and Tuesday has the lowest returns in majority of the indices.

d The higher proportion of announcements after the close of trading on Friday than on any other day of the week (Patell and Wolfson, 1982) and the pattern of trade by FIIs in India matching with the occurrence of pattern of day anomalies might give us clues on occurrence of day-of-the-week effect in India stock market. Thus, lower Tuesdays returns followed by higher Wednesday returns in Indian stock markets point towards markets taking more time to absorb the news announcements and decisions by companies, policy makers and institutional investors throughout the world. FIIs play a very significant role in ensuring momentum of the Indian capital markets and thus a constant vigilance by regulators with respect to the investment patterns/trading strategies adopted by FIIs and its relevance with calendar anomalies can help regulators in ensuring disappearance of day anomalies in Indian stock market.

e The analysis finds semi-month effect and turn-of-the-month effect to be present in Indian stock markets. The study found highest mean returns during the first-half of the month in case of indices namely Sensex and CNX Nifty, which are considered to be the barometer of Indian stock markets. In case of sectoral indices BSE FMCG, BSE Teck, CNX IT, Bank Nifty and CNX Infra indexes also showed highest returns during the first half of the month. The results obtained are found to have high correlation with occurrence of majority of the holiday in the first half of the month,
which might give us clues to the semi-month effect in Indian stock markets. Thus, investors can adopt a trading strategy of buying and selling towards the first half of the month and second half of the month mainly around important holidays to make abnormal profits. Similarly, a simple trading strategy of buying on the fourth day of every month and selling any day during the turn-of-the-month (day-1 to day+3) can yield huge returns to the investors.

f Holiday effect is observed in the Indian stock market. The returns around holidays are observed to be significantly different from the average returns of the entire period. The mean returns around holidays namely Ganesh Chaturthi, Dussehra, Bakrid and Mohurram are significantly lower when compared to other days and hence, the investors can schedule accordingly to timely buying the stocks during these holidays and it is recommended to hold these stocks for long term gains. In case of Diwali holidays, the mean returns around the holiday are observed to be significantly higher and hence adopting a trading strategy of buy-sell could fetch abnormal returns.

g Month-of-the-year effect is observed in the Indian stock markets. The results show patterns changing in the recent periods. Tax-loss hypothesis though helps in explaining February effect in the first sub-period (1991-2001), the theory is insignificance as we observe patterns changing in the recent time periods. We can infer month-of-the-year effect aligning with the effects seen globally. December effect is observed in the recent period and a trading strategy of buying in the month of January and February and selling in the month of April and August (for short term gain) or November and December months (for long term gain) would be profitable to the investors in case of majority of the indices.

h The results obtained from the study can be used in forming various trading strategies by the retail, Institutional and non-Institutional investors to make abnormal profits. The study also finds higher risk during these periods and hence is advisable to form trading strategies knowing the risks associated with it.

i We observed that, calendar anomalies exist in both broad and sectoral indices respectively. The average returns observed around day of the week, month of the year, semi-month, holidays and turn of the month are either significantly higher or
lower. The study also found non-linearity between risk and returns, which is contrary to the capital market theory in terms of higher returns considering lower risks for the portfolio’s. Thus, the market regulators can take appropriate steps to stabilize the market by taking some corrective steps and adopting various regulatory measures.

The study found changes in the pattern of the anomalies over various sub-periods in case of all the five anomalies considered for the study. This encourages us to believe that the appropriate regulatory measures taken by the regulators over the years have been successful to control these anomalous behaviors in the capital markets, which in turn has helped protect the interest of the investors. The global integration of the domestic markets, more so in the recent years reinforces regulators to recommend and impose still tougher rules and regulations to ensure transparency in reporting information by the companies and also in reporting transactions done by the foreign and domestic investors in the future such as mutual funds. The Indian economy is at present passing all the way through very vital stages of economic development. A number of policy initiatives ushered by the regulators covering all segments of the economy, including trade, exchange rate, foreign investment is seen to definitely have impact on the behavior of stock prices and ultimately on changing pattern of calendar anomalies.
6.2 CONCLUSIONS

Efficiency of the stock market reflects and provides a level playing ground among the investor community. The markets, if efficient, fully reflect the past and the present information in the stock prices, so that, one cannot make abnormal gains by leveraging upon the insider information, as fundamental and technical analysis will not provide substantial results. The study examined the Indian stock market, to determine whether the empirical anomalies of seasonality detected in the U.S market and other international market is also present in India. In the study, we observe that the Indian stock market presents different patterns in stock returns and the study brings forth distinct conclusions to prove the validity of several popular beliefs regarding calendar anomalies across various sub-periods. But, we observe that the strategies to make profits may lose ground very quickly with global economies changed outlook to liberalization, political stability, increased foreign trade and commerce, and rise of multinational companies. The study finds that the markets may be fast converging to a point where opportunities will become faint, especially after 2002. With Advanced trading systems put in place and markets seamlessly integrated by operating 24 hours in different time zones across the world, markets seem to become efficient with India being more in sync with the global markets now than ever. The advancements in information technology and standards set according to the global standards such as settlement mechanism has made transaction costs and informational costs to decline further making global diversification as convenient to the investors but at the same time difficult as possible without right strategies. The study provides conclusive results to the presence of calendar anomalies, but, at the same time, points finger towards the extent of influence the stock markets throughout the world has had on Indian counterpart which appears slow in the initial periods but very fast in the recent times mainly after 2002. The studies of the sub-periods validate the findings of several research papers as to the integration of the Indian markets with other global exchanges from 2002-03 i.e., patterns though observed in the initial periods diverge from the results observe across the world when significant statutes and measure were absent from the Indian market, however, later periods depict significant influence of the global stock markets as the anomalies observed in Indian stock market tends to converge with patterns observed across the globe. The reason for
this convergence is due to the efficient governance system laid forth by Securities Exchange Board of India which is in accordance with the global standards. The listing of the Indian companies across the globe has definitely provided impetus for facilitation of information transfer between the exchanges. The Study finds patterns differentiating itself in the initial periods and in the later periods, which somehow tries to trace the gradual transformation of Indian stock market to a state of maturity. The literature validates the results that Indian markets in general became more integrated with the global markets from year 2002 onwards (D.Mukherjee, 2007).

Considering the results obtained for all the calendar anomalies, we can find the results indicating towards a 360 degree causal relationship. There seems to appear a causal impression of one calendar anomaly on the other i.e., there appears to be interlinking of one calendar anomaly results on the other anomaly more so in the recent times. The studies done before concentrated on explaining the anomalies completely independently which might have been the rationale for not arriving at any conclusive evidence on explaining the cause of these anomalies. December is observed to have highest returns when compared to any other month in majority of the indices considered for the study. A lot of reasons can be provided in explaining month-of-the-year effect using other anomalies. From the results obtained for holiday effect, it was observed that the returns around important holidays such as Ganesh chaturthi, Dussehra, Diwali have been significantly large (either higher or lower returns) from average monthly returns. We also know that, majority of these holidays occurred towards the end-of-the-year. These festivals are considered to be very auspicious by Indian investors and hence would prompt them to take new bold decisions around these holidays. For example, buying new homes, new cars, expensive durables and jewellery are all part of Indian tradition to welcome new things into the lives. Even companies across all the sectors in India also give a lot of importance to these festivals by providing incentives to employees in the form of bonus, dividends, etc. Thus extra cash in hand with investors would inturn provide boost to making purchasing decisions. The possible implications of these holidays might also be observed on the sectoral indices performance too, especially consumer durables, FMCG, auto, banking, telecom, real estate etc. For example, huge demand for consumer durables products, automobiles, housing would
shoots up sales in respective sectors in a very significant way, giving impetus for industry production and ultimately the entire financial system and Indian economy. We observed holidays considered mainly occurring during Wednesday and Friday for the entire study period. In fact, this can correlate to occurrence of Wednesday effect at least around the months of December, which can be further researched. Thus holiday effect observed can also be the possible reason for occurrence of day-of-the-week effect (Wednesday effect), semi-month effect, and month-of-the-year (December effect) in Indian stock markets. India is definitely a unique country for studying various anomalies wherein taxation, transaction costs, and institutional holdings differ significantly from that of the U.S and other developed countries. More steps still need to be taken to become efficient in terms of volumes and frequencies of trade as observed in other parts of the world. Trading and Settlement Mechanism is considered to be one of the best and the fastest when compared to NYSE and other global markets. The result of this progression to a state of maturity and perfection, is to guide India to become the major player in the global markets and thus from an investor point of view, leading to an efficient market.

Thus we can conclude that, the results observed indicates the presence of significant calendar anomalies which also seem to be associated with releases of information, and the indices act as proxy for differentials in the speed with which companies release information to the market, and anomalies are displayed due to inadequate adjustment of prices to available information. Calendar anomalies exist in Indian stock markets, but, the calendar anomalies seem to get converged with the patterns observed across major global economies which might be the result of integration of the markets. Holiday effect can be considered as a key calendar anomaly in explanation of other calendar anomalies mainly day-of-the-week effect, Month-of-the-year effect and semi-month effect. With Indian capital markets striving to achieve global standards, calendar anomalies would be just a reflection of markets to the global clues and information and would thus provide no opportunities to the investors to make abnormal profits. The convergence of the patterns also points towards higher integration and less insulation of the Indian markets today than in the earlier time periods. The Indian stock markets seem to be more sensitive to the movements and clues provided by the global stock exchanges. Hence,
though the markets are considered inefficient, they are slowly moving towards integration and thus efficiency. Indian market can be considered as the best example of this phenomenon.

6.3 SCOPE FOR FURTHER RESEARCH

Based on the study, the obvious follow-up to this analysis is to identify areas of possible research in future.

a  The present study can be extended by collecting the primary data from retail investors and institutional investors on calendar anomalies especially with respect to announcement based strategies. This would give us more insight into the changing pattern of anomalies over the period, successful trading strategies applied for finding opportunities across the globe and lastly the degree of market efficiency and market integration.

b  The study on linearity and non-linearity of the risk and returns during various calendar anomalies and its implications have to be studied from the angle of retail and institutional investors. The policy implications of this study and the corrective actions that need to be taken by the regulators can also be the area for future research.

c  The analysis can also be extended to understand causal impact of sectoral indices on broader indices and vice versa in various developed and developing countries during various time periods.

d  An event study methodology on the changing pattern of calendar anomalies can be studied over different time frames. The important regulatory measures taken by government and market regulators and their impact on markets for the study.