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Momentum and Contrarian Strategies in the Colombo Stock Exchange

By

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I hereby recommend that the thesis prepared under my supervision by

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entitled

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Be accepted in partial fulfillment of the requirement for the degree of **Master of Science in Management**

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Momentum and Contrarian Strategies in the Colombo Stock Exchange

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ABSTRACT

Financial academics and practitioners have recognized that average stock returns are predictable based on past returns. De Bondt and Thalar (1985) report that 3 to 5 years past losers outperform the past winners in the subsequent period. That leads contrarian strategies to be profitable. Jegadeesh and Titman (1993) report that in the medium horizons of 3 to 12 months previous winners outperform the previous losers so that the zero cost momentum strategy is profitable. This study examines the short and medium term momentum and contrarian strategies in the Colombo Stock Exchange (CSE) from October 1991 to December 2005.

This study examines 144 different strategies based on the portfolio formation months (K= 1,2 ,….,12) and holding months (J = 1, 2,, …..,12). The study finds that in the total sample period contrarian strategies are profitable in the short months. The momentum strategies are significantly profitable in the medium months. The same strategies imposing a one month time lag between portfolio formation period and holding period show all momentum profits and medium months are highly significant.

The sub sample analysis shows that for the first sample period from October 1991 to May 1997 all the portfolios have negative returns and however zero cost momentum strategy generates positive profits and only when there is a time lag between portfolio formation period and holding period, momentum profits are significant. In the second sub

period from June 1997 to June 2005 all the portfolios show positive returns and momentum profits are highly statistically significant in both ways.

The analysis of seasonality and momentum profits reveals that momentum profits are positive and highly statistically significant in January and momentum profits are negatively significant in August. The January momentum profits are mainly due to the deep negative returns of losers therefore this January momentum profits are not due to the well known January effect.

The post formation period performance of momentum portfolios over 36 months after the month of portfolio formation month reveals a positive trend of momentum profits. The annual average returns over post five year period reveal that momentum profits are highly significant even five years after the formation month. Hence post formation period analysis of momentum profit payoffs reject the overreaction and under reaction hypotheses for momentum profits instead of that it supports the Conrad and Kaul (1998) hypothesis of momentum profits due to cross – sectional dispersion of stock mean returns.

CHAPTER 01

INTRODUCTION

1.1 Background of the Study

One of the central themes in the academic literature since 1960's has been the concept of efficient capital markets. Fama (1970) describes an efficient market as "prices fully reflect" all available information. When the prices are fully reflect all the available information, no body can use these information to get an above average returns.

If the market is efficient, a change in the price of a security follows a random walk. The random walk theory holds that the expected change in the price of a security on any given day must be unrelated to the past series of changes that have already taken place.

On the one hand, the market price responds instantly and accurately to new information and on the other hand, the price itself changes in a random, unpredictable fashion over time. Therefore, if the market is efficient, the future stock prices cannot be predicted using the past stock prices. However, there are many empirical evidences on the predictability of security returns based on the past returns of the securities. These are known as market anomalies.

French (1980) finds that there are significant differences in the expected percentage changes of stock returns based on the day of the week concerned. He finds that the expected percentage returns on Mondays appear to be negative while expected percentage returns change on Wednesdays and Fridays are appear to be larger than on Tuesdays and Thursdays.

Banz (1981) reports that small firms tend to have higher abnormal returns than do the large firms. The profitability of buying securities of small firms is a phenomenon that has occurred over many years. The ability to make money using an investment strategy based on size is inconsistent with the market efficiency.

It is a known phenomenon that small firms have higher returns in the month of January. Keim (1983) reports that the small firm returns during January are significantly higher than the large firm returns. Kato and Shallheim (1985) report that January and size effects appear to be present in the Japanese data.

De Bondt and Thalar (1985) show that stocks perform poorly over the 3 to 5 years holding period achieve higher returns in the next 3 to 5 years than stocks, which performed well in the same period. Hence it is possible to implement a contrarian strategy to make money by selling past winners and buying past losers. Contrary to the findings of De Bondt and Thalar, Jegadeesh and Titman (1993) report the returns continuation pattern in the medium horizon of 3 to 12 months. Where, past winners on average continue to out perform past losers, so that there is a momentum in stock prices.

1.2 Research Problem

There are two views on the short and intermediate level of returns predictability as contrarian and momentum. These have been well tested in the U.S. markets but there are few evidences in the international markets. In the case of developing markets one can very hardly find studies on momentum and contrarian strategies. Therefore, it is important to examine the possibility of short and medium term return predictability of the past returns in the Colombo Stock Exchange. The importance is depending on many reasons. First, CSE is a small market and an investor can easily implement these strategies in this market. Second, this study has a practical importance where investors may have opportunities to beat the market to earn zero cost profits. Third, so far no one has examined the medium term return predictability in the CSE. Therefore this study is to examine the short and medium term returns predictability using past stock returns of the CSE.

1.3 Importance of the Study

The study is important in several grounds. One of the reasons is that, this study is done in the CSE. The CSE is rapidly developing stock exchange and from its outset has held a pre-eminent position among Asian Stock Exchanges.

Another reason for the importance of this study is lack of past research in the area of short and medium term return predictability in the international markets. Most of the studies have been done in the US market and few in other markets (Japan and some European markets) and exceptionally very few in developing markets. There are no any studies found in the south Asian region. Therefore this study may add valuable evidences to the existing literature.

This study also has a practical importance too. If the study finds some predictable return patterns in the CSE, investors specially fund management firms can make investment strategies based on this information to make money at a zero cost.

1.4 Objectives of the Study

The broad objective of this study is to test the short and medium term predictability of stock returns in the CSE. Under this broad objective following specific objectives are tested.

1. Examining the profitability of the different trading strategies in the CSE. Under this objective, profitability of the momentum strategies and contrarian strategies are examined.
2. Testing whether the seasonality explains the payoffs of the momentum strategies.
3. Examining the behavior of the momentum and contrarian profits in post formation period. This will depict whether momentum profits explain by under reaction, overreaction or risk.

1.5 Limitations of the Study

There are several limiting factors which affect on the length of the analysis and quality of the study. The main limitation is the non availability of data. The study basically depends on the Data Library file of the CSE. The Data Library does not contain required dividend information after 2003. Therefore no dividend adjustments have been done on the stock returns after 2003. Due to the same factor stock returns have not been adjusted for stock splits also. How ever this has no big impact because there are only 6 stock splits in the market. The relationship between Momentum profits and size effect, momentum profits and volume effect could not be analyzed due to non availability of stock market capitalization data and trading volume data.

1.6 The Organization of the Chapters

The rest of the chapters are organized as follows. Chapter II, review of literature is the survey of the past researches of momentum and contrarian strategies. Chapter III, conceptual frame work describes the framework of the empirical analysis. Chapter IV, methodology describes the data used and which methods applied for testing hypotheses. Chapter V, empirical analysis and results are the empirical analysis and results. Chapter VI, discussion of the analysis discusses the findings with the past literature. Chapter VI, summary and conclusion provide the summary and the conclusion. Last part is the references and appendixes.