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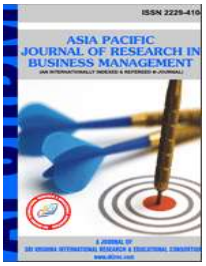

AN EMPIRICAL STUDY ON PERCEPTION OF TRADERS TOWARDS ARBITRAGE TRADING WITH SPECIAL REFERENCE TO BOMBAY STOCK EXCHANGE (BSE)

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Abstract: Arbitrage helps to equalize prices and restore market efficiency. Theoretical arbitrage requires no capital, entails no risk however, real– world arbitrage calls for large outlay of capital, entails some risk. A major weak link in India‘ s financial sector today is inadequate knowledge about arbitrage. This explains the low levels of financial capital deployed in it. The objective of this paper is to understand the concept of arbitrage and to examine the perception of investors towards arbitrage trading. It found that Arbitrage trading should never be manual as it requires lot of technical support and study, also majority of the trader believe that it should not be intraday trading as they need to wait for the arbitrage opportunity of appear.

Keywords: Arbitrage, BSE, perception, etc.

1.1 Introduction:

Arbitrage by definition is a financial transaction that makes an immediate profit without involving any risk. The simultaneous purchase and sale of an asset in order to profit from a difference in the price. This usually takes place on different exchanges or market places also known as a—risk less profit". Purchases the stock where it is undervalued and short sells the stock where it is overvalued, thus profiting from the difference. Arbitrage is recommended for experienced investors only.

A central idea in modern finance is the law of one price. This states that in a competitive market, if two assets are equivalent from the point of view of risk and return, they should sell at the same price. If the price of the same asset is different in two markets, there will be operators who will buy in the market where the asset sells cheap and sell in the market where

it is costly. This activity termed as arbitrage, involves the simultaneous purchase and sale of the same or essentially similar security in two different markets for advantageously different prices (Sharpe & Alexander 1990). The buying cheap and selling expensive continues till prices in the two markets reach equilibrium.

Hence, arbitrage helps to equalize prices and restore market efficiency. Theoretical arbitrage requires no capital, entails no risk however, real– world arbitrage calls for large outlay of capital, entails some risk. A major weak link in India‘ s financial sector today is inadequate knowledge about arbitrage. This explains the low levels of financial capital deployed in it.

1.2 **Bombay Stock Exchange (BSE)**

Bombay Stock Exchange Limited is the oldest stock exchange in Asia with a rich heritage. Popularly known as "BSE", it was established as "The Native Share Stock Brokers Association" in 1875. It is the first stock exchange in the country to obtain permanent recognition in 1956 from the Government of India under the Securities Contracts (Regulation) Act, 1956.The Exchange's pivotal and pre-eminent role in the development of the Indian capital market is widely recognized and its index, SENSEX, is tracked worldwide. The Bombay Stock Exchange is known as the oldest exchange in Asia. It traces its history to the 1850s, when stockbrokers would gather under banyan trees in front of Mumbai's Town Hall. The location of these meetings changed many times, as the number of brokers constantly increased. The group eventually moved to Dalal Street in 1874 and in 1875 became an official organization known as 'The Native Share & Stock Brokers Association'. In 1956, the BSE became the first stock exchange to be recognized by the Indian Government under the Securities Contracts Regulation Act.

2. Literature Review:

According to Huberman et. al. (2005) Focusing on capital asset returns governed by a factor structure, the Arbitrage Pricing Theory (APT) is a one-period model, in which preclusion of arbitrage over static portfolios of these assets leads to a linear relation between the expected return and its covariance with the factors. The APT, however, does not preclude arbitrage over dynamic portfolios. Consequently, applying the model to evaluate managed portfolios is contradictory to the no-arbitrage spirit of the model. An empirical test of the APT entails a procedure to identify features of the underlying factor structure rather than merely a collection of mean-variance efficient factor portfolios that satisfies the linear relation.

According to Nadeem et al (2009) the aims of his study was to test the validity of arbitrage pricing theory (APT) in Pakistani Economy using macroeconomic factors and identifying the most relevant macroeconomic factors that are helpful in explaining variation in the stock returns. Moreover, study also reveals the extent to which identified factors explain variation in stock returns. The study has important implications for Pakistani investors to move from CAPM to APT (A more reliable measure of risk premium) for estimation of risk premium while scaling their required rates of returns. Four macroeconomic variables (Inflation, Exchange Rate, Money Supply (M1) and Oil Prices) are identified using pre-specified macroeconomic variable approach. Exchange rate is taken as Pak Rupee against US Dollar. Convenience sampling technique is used to locate the sample and 26 companies listed on Karachi Stock Exchange (KSE) constitute the sample for this study. Monthly data for all macroeconomic variables and stock prices of the sampled companies is collected over a period of 5 years (2004-2008). Data is scaled by calculating the percentage returns to facilitate the comparison. Regression is run for all 26 companies individually using stock return as dependent variable and all the macroeconomic factors as independent variables. This yielded the sensitivity of stock prices to each macroeconomic variable (beta) for all the companies in sample. Using these beta coefficients, the projected values of stock returns for sample period are calculated. One sample t-test is used to compare the actual and projected stock returns. The results showed no significant difference between two value sets. Thus, researcher concluded that the outcome of Arbitrage Pricing Theory is much similar to actual one and APT is efficient enough to predict the future stock returns, hence its validity is supported. This study has limitations for example the convenience sampling technique may not be the appropriate to generalize the results. However, if comparatively large sample is taken from each sector and more macro and micro variable both are taken together, the study can yield better results.

Fase and Abma (2003) examined the empirical relationship between financial development and economic growth in South- East Asia using data for twenty-five years. They found that financial development matters for economic growth and that causality runs from financial structure to economic development. The results suggested that in developing countries a policy of financial reforms could improve economic growth.

3. Objective of the study:

1. To understand the concept of arbitrage
2. To examine the perception of investors towards arbitrage trading

4.1 Research Methodology:

In the present research, descriptive method of research design has been used to describe the advantages and disadvantages of arbitrage trading. The characteristics of arbitrage trading are also discussed in this paper.

4.2 Data Collection

In this research, primary data has been collected through semi-structured questionnaire distributed to institutional investors of India in order to gain the information about the strategies to be applied in arbitrage trading. Secondary data has been collected through book of financial management, websites, journal, literatures and magazines.

4.3 Sampling Technique and Sample Size:

For the purpose of this research, the primary data has been collected from 100 institutional investors who are trading in arbitrage under Bombay Stock Exchange (BSE). For this purpose, convenient sampling technique has been applied.

5. Data Analysis:

During the research primary data has been collected through semi-structured questionnaire distributed to institutional investors of India in order to gain the information about the strategies to be applied in arbitrage trading, where following results have been obtained:

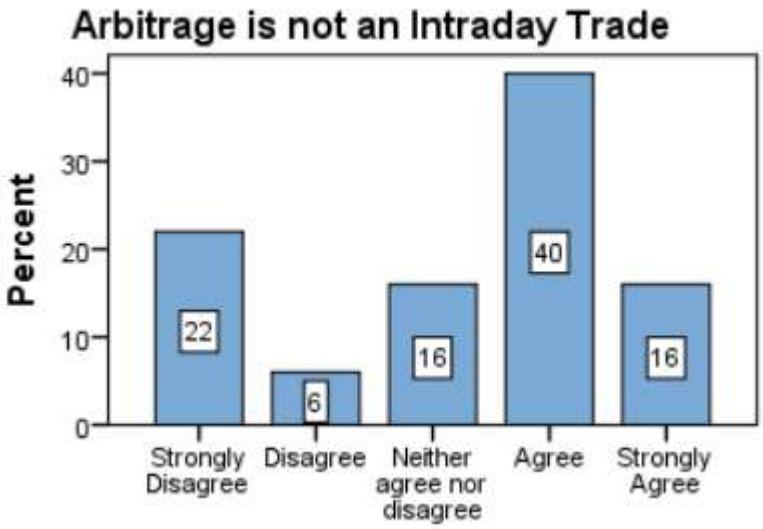

Fig. 1.1

According to fig. 1.1 it is found that as a general myth that Arbitrage is an intraday trade, however 40% of the respondents agree that it is not an intraday trade and 16% strongly agree to this. Equal number of respondents i.e. 16% neither agree nor disagree to this, whereas 22% of the respondents strongly disagree to this and remaining 6% disagree to the fact that arbitrage is not an intraday trade.

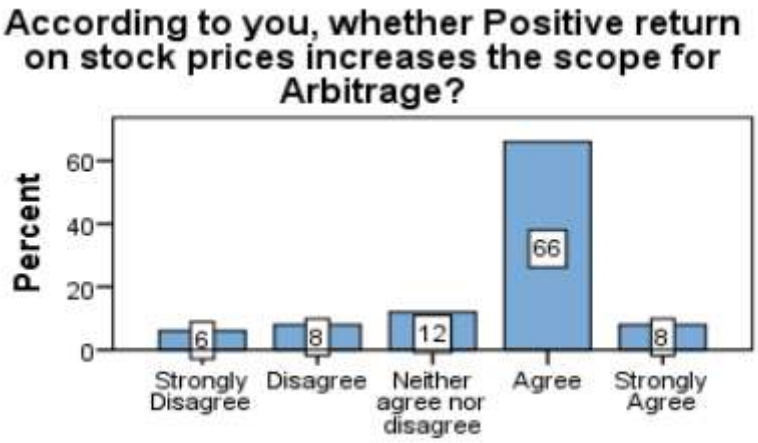

Fig. 1.2

As indicated in fig. 1.2 majority 66% of the respondents agree to the fact that Positive return on stock prices increases the scope for arbitrage which is supported by 8% of the respondents who strongly agree to this. 12% of the respondents neither agree nor disagree to this, whereas, 8% of the respondents disagree to this and remaining 6% strongly disagree to this.

Fig. 1.3

It is further found that 50% of the respondents agree that Arbitrage Trades should never be Manual and 10% strongly agree to this, whereas 16% of the respondents neither agree nor disagree to this. However, 18% of the respondents disagree to this and said arbitrage trades can be manual and remaining 6% strongly disagree to this.

6. Conclusion:

Technical analysis is a method of evaluating securities by analyzing the statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security's intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity. Most important part of technical analysis is arbitrage analysis and majority of the respondents agree that they perform arbitrage analysis before analysing any stock and giving recommendations to the clients. It is therefore concluded that Arbitrage trading should never be manual as it requires lot of technical support and study, also majority of the trader believe that it should not be intraday trading as they need to wait for the arbitrage opportunity of appear.

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