

DECLARATION

This is to declare that the thesis entitled “Performance Appraisal of Stock Trade Using Transaction Cost Analysis: A Study on S & P 500” is an original piece of my research work submitted for the award of the degree of Doctor of Philosophy in the Department of Business Administration, Jawaharlal Nehru School of Management Studies, Assam University, Silchar. Any part or in full thereof has not been submitted to any other University or Institution for award of any other research degree or diploma.

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PREFACE

In a perfectly competitive and complete market, traders can engage in trading instantly at an equilibrium price for any quantity. In that environment, when executing a trade, a trader's cost of trading encompasses two components: (1) the value of the stock or asset (*cost of investment*), a payment to the seller; and (2) a fixed charge, such as commission, a payment to the broker or intermediary who facilitates the trade. The second component is typically known as *transaction cost*. The performance on trading depends on the proceeds from the sale of the stock, net of transaction cost. In an intensely competitive financial market in which every trader is seeking alpha, transaction cost, no matter how small, can dictate performance when comparing with a benchmark or peer traders. Empirical evidence reveals that transaction costs can range from as low as 30 bps to as high as 300 bps, depending on the size of the trade and the liquidity of the stock. This evidence clearly indicates that transaction cost can affect investment performance and warrants careful management. Portfolio performance relies on upon many elements, for example, stock picking capacity, planning ideal portfolio portion, and market timing. Be that as it may, as of late literature begin tending to the significance of transaction cost analysis in measuring portfolio performance. The present study examines the performance appraisal of stock trade by using transaction cost analysis (TCA).

The whole thesis is organized under the sixth chapters. In the first chapter of the thesis concentration was given on the conceptual framework and introduces historical perspective and theoretical background of transaction cost. The second chapter presents

the research methodology adopted for the study. The chapter deals with the review of literature with an expectation to recognize the intuitive factors and discover the research gap. Objectives, hypotheses, research methodology, scope and significance of the study are also discussed in this chapter. The third chapter describes and analysis the factors influencing transaction costs in stock market. In this section, further review of all three mathematical frameworks of Implementation Shortfall and improving the analysis by providing further classification on opportunity cost that previous studies have not addressed. The objective of fourth chapter is to identify the transaction costs associated with stock trade in stock market. To achieve this objective this chapter try to find out the association between transaction cost (measured by implementation shortfall) and market timing of the transaction. The fifth chapter describe the performance appraisal of stock trade by using transaction cost analysis. This chapter also describe the relationship between transaction cost and other performance measurement. This chapter also try to find out the appropriate timing for the best execution price. The sixth and epilogue chapter presents the summary of findings, discussion, suggestive measures for reducing transaction costs, and scope for further research.

The present study is an effort to make academic contribution. While I have tried to be accurate in all respects but still some deficiencies may creep in unintentionally. Thus any suggestion regarding the study is highly appreciated.

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List of Abbreviations

ABS_RPM or APM	Absolute Performance
ADF Test	Augmented Dickey-Fuller (ADF) Test
ADV	Average Daily Volume
AIC	Akaike Info Criterion
AMEX	American Express
BSE	Bombay Stock Exchange
Bps	Basis points
C	Commission
DAX	Deutsche Aktien Indexe
DC	Delay Cost
DJIA	Dow Jones Industrial Average
DOW	Day of Week
DW Stat	Durbin-Watson stat
ECN	Electronic Communication Network
EST	Eastern Standard Time
ETF	Exchange Traded Fund
F	Fees
FPT	First Phase Time
FT	Financial Times
FTROC	First Trading Related Opportunity Cost
GICS	Global Industry Classification Standard

IPO	Initial Public Offering
IRC	Investment Related Cost
IROC	Investment Related Opportunity Cost
IS	Implementation Shortfall
LPT	Last Phase Time
MI _s	Instantaneous Market Impact Cost
MIC	Market Impact Cost
MPT	Mid Phase Time
NASDAQ	National Association of Securities Dealers Automated Quotations
ND	Nikkei-Dow
NYSE	New York Stock Exchange
OC	Opportunity Cost
OHLC	Open High Low Close
OTC	Over The Counter Market
ORDC	Operation Related Delay Cost
PAC	Price Appreciation Cost
PI	Price Impact
PR	Portfolio Return
PWP	Participation Weighted price
R	Rebates
RPM	Relative Performance Measurement
RR	Real Return

RTROC	Residual Trading Related Opportunity Cost
S & P	Standard and Poor
SC	Spread Cost
SIC	Schwarz criterion
SSR	Sum of Squared Residuals
T	Taxes
TCA	Transaction Cost Analysis
TCM	Transaction Cost Management
TOPIX	Tokyo Stock Price Index
TRC	Trading Related Cost
TRDC	Trading Related Delay Cost
TROC	Trading Related Opportunity Cost
TSE	Tokyo Stock Exchange
TWAP	Time Weighted Average Price
TWSE	Taiwan Stock Exchange
VAR	Vector Auto-regression
VECM	Vector Error Correction Model
VWAP	Volume Weighted Average Price