# **Arbitrage Profits In Nepalese Stock Market**

### By SITU JOSHI

Hari Khetan Multiple Campus Campus Roll No. 26/063 TU Registration No. 7-2-400-39-2003

A Thesis

Submitted to: Office of the Dean Faculty of Management Tribhuwan University

In the partial fulfillment of the requirements for the Degree of Masters of Business Studies (MBS)

> Birgunj, Nepal December 2010

#### RECOMMENDATION

This is to certify that the thesis

#### Submitted by

#### SITU JOSHI Hari Khetan Multiple Campus Campus Roll No. 26/063 TU Registration No. 7-2-400-39-2003

Entitled

#### Arbitrage Profits In Nepalese Stock Market

has been prepared as approved by this campus in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.

..... Hira Lal Yadav

(Thesis Supervisor)

Shambhu Prasad Chaurasiya (Head, Research Committee)

Bhagwan Prasad (**Campus Chief**) Hari Khetan Multiple Campus Birgunj, Parsa

Date:.....

#### VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis

#### Submitted By: SITU JOSHI Hari Khetan Multiple Campus Campus Roll No. 26/063 TU Registration No. 7-2-400-39-2003

### Entitled: Arbitrage Profits In Nepalese Stock Market

and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirements for the degree of **Masters of Business Studies (M.B.S.)** 

#### **VIVA- VOCE COMMITTEE**

Head, Research Committee:.....Member (Thesis Supervisor):.....Member (External Expert):....

Date: .....

#### ACKNOWLEDGEMENT

This is a business age with every body running after profits. Some stick to normal profits but others even have higher expectation and go after abnormal or arbitrage profits. And stock market does certainly provide a platform where profit monger human beings can certainly quench their thirst along with proper database maintenance. And Nepalese stock market is not an exception for Nepalese people. So, this research entitled "Arbitrage Profits in Nepalese Stock Market" is an attempt to analyze Nepalese stock market with reference to existence of arbitrage profits through analyzing sampled commercial banks- major determinant of Nepalese stock market.

During the research, various persons have supported this researcher from the very beginning of planting the seed of the research subject to this printed form.

First of all, I would like to extend my thanks to my thesis supervisor, Mr. Hira Lal Yadav. Further, I would like to express my profound gratitude to Dr. Bhagwan Yadav, Principal of Hari Khetan Multiple Campus and Mr. Shambhu Prasad Chaurasiya for their valuable insight and advice in this research work.

I am very much thankful to Hari Khetan Multiple Campus administration for providing easy access to the required inputs of this thesis. Besides, I am also indebted to staffs of Hari Khetan Multiple Campus Library, T.U. Central Library, SEBON Library and NRB Library (Baluwatar) for making available the much needed co-operation in literature review and data collection.

Besides, I must thank the founder of computer-without which I would not have been able to surf into various web pages, to process the words in this printed format, and it would have taken me ages to reach this state of research work.

Moreover, I would be thankful if any one would find my research work to give a worth of review and provide their invaluable suggestion for further improvement.

Last, but yet the most important contribution has come from my family members for always keeping me move ahead in every aspect of life and this research is just an unforgettable part .

Situ Joshi (Researcher) Hari Khetan Multiple Campus Birgunj

Date:....

# **TABLE OF CONTENTS**

	Page No.
Recommendation	Ι
Viva-Voce Sheet	II
Declaration	III
Acknowledgement	IV
Table of Content	V
List of Tables	VII
List of Figures	VIII
Abbreviations	IX

### CHAPTER – I: INTRODUCTION

1.1 Background of the Study	1
1.2 Statement of the Problem	5
1.3 Objectives of the Study	9
1.4 Significance of the Study	10
1.5 Limitation of the Study	10
1.6 Organization of the Study	11

### CHAPTER – II: REVIEW OF LITERATURE

2.1 Conceptual Review	13
2.1.1 Concept of Securities	13
2.1.2 Security Market	16
2.1.3 Growth of Nepalese Security Markets	19
2.1.4 Role of Stock Exchange	21
2.1.5 Theories of Share Price Behavior	22
2.2 Research Review	25
2.2.1 Review of Foreign Context	25
2.2.2 Review Related Studies in Nepal	29
2.2.3 Review of Unpublished Masters Dissertations	31

2.3 Research Gap		34
CHAPTER-III:	<b>RESEARCH METHODOLOGY</b>	
3.1 Research Design		36
3.2 Population and Sa	ample	36
3.3 Nature and Source	es of Data	36
3.4 Data Analysis To	ols	37
3.4.1 Statistical T	ools	37
3.4.2 Test Model		40
3.4.3 Test Method	lology	42
3.4.4 Hypothesis	of the Study	46
3.4 Limitation of the	Methodology	47
CHAPTER-IV:	DATA PRESENTATION AND ANALYSIS	
4.1 Data Presentation	and Analysis	48
4.1.1 Stock Price	Behavior of Sampled Commercial Banks	48
4.1.2 Volatility of	Daily Stock Prices	51
4.1.3 Analysis of	Co-Movement of Commercial Bank Index and	
NEPSE Inde	ex	53
4.2 Descriptive Analy	vsis	54
4.2.1 Simple Reg	ression Equation	54
4.2.2 Multiple Re	gression Equation	55
4.3 Test of Random V	Valk Hypothesis	57
4.3.1Analysis of the I	Results of Serial Correlation (Autocorrelation)	57
4.3.2Analysis of the I	Results of Run Test	62
CHAPTER-V- SUM	MARY, CONCLUSION AND RECOMMENDA	TION
5.1 Summary		65
5.2 Major Findings of	f the Study	68
5.3 Conclusions		71
5.4 Recommendation	S	71
Bibliography		74
Appendixes		

# LIST OF TABLES

Table No.	Title	Page No.
2.1	Growth Pattern of Nepalese Securities Market	
	from 2004/05 to 2008/09	20
4.1	Computation of Stock Volatility	52
4.2	Estimated Relationship Between NEPSE and	
	Fundamental Variables (Simple)	54
4.3	Estimated Relationships between NEPSE	
	and Fundamental Variables(Multiple)	57
4.4	Series having significant values of first order	
	to Tenth order Autocorrelation coefficient	59
4.5	Computation of Run Test	62
4.6	Name of Companies Having Significant Value	
	of Standard Normal Variate Z at 5% & 1% Level of Significant	ce 63
4.7	Result of percentage difference between the actual and expected	d
	number of runs as proportion of expected number of runs	64

# LIST OF FIGURES

Figure No.	Title	Page No.
4.1	Daily Stock Price Behavior of Nabil	48
4.2	Daily Stock Price Behavior of SCB	49
4.3	Daily Stock Price Behavior of HBL	50
4.4	Daily Stock Price Behavior of NB	50
4.5	Daily Stock Price Behavior of BOK	51
4.6	Co- movement between Indices of NEPSE and Commercial Bank	x 53

# **ABBREVIATIONS**

APT	:	Arbitrage Pricing Theory
AT	:	Annual Turnover
BOK	:	Bank of Kathmandu Limited
CDS	:	Central Depository System
EMH	:	Efficient Market Hypothesis
EMT	:	Efficient Market Theory
HBL	:	Himalayan Bank Limited
Κ	:	Proportionate difference between actual and expected number of runs
L <sub>n</sub>	:	Natural Logarithms
LOG	:	Logarithms
NB	:	Nepal Bangladesh Bank Limited
NBL	:	Nabil Bank Limited
NEPSE	:	Nepal Stock Exchange
NRB	:	Nepal Rastra Bank
NSM	:	Nepalese Stock Market
OTC	:	Over the Counter Market
PI	:	Amount on Public Issue
PV	:	Paid Up Value
RWH	:	Random Walk Hypothesis
SCB	:	Standard Chartered Bank Limited
SEBO/N	:	Security Board of Nepal
SEC	:	Security Exchange Center
SPSS	:	Statistical Package for Social sciences
TU	:	Tribhuvan University
UK	:	United Kingdom
USA	:	United States of America