COGNITIVE COMPONENTS (BIAS) OF BEHAVIORAL FINANCE AND COMMON STOCK MARKET ANOMALIES IN BANGLADESH

By

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Supervisor's Forwarding

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(Prof. Ali Ahsan)

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Behavioral Finance is a subject which we deal daily, while we take any decision about money, like we spend, earn, invest, buy things, save etc. But it's correlation with the common stock market needs attention towards a particular direction. It needs searching again and again about its correlation.

This research would not exist, if I would not study in The University of Dhaka. My heartfelt thanks to the Authority and I am proud of my University.

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EXECUTIVE SUMMARY

Human emotions and cognitive biases play an important role in the investment decision of managers and investors in managing the funds or assets or equities or in simple terms the invested amount. Cognitive biases are the claimed proponent of Behavioral Finance. Behavioral Finance combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save and borrow money. Behavioral Finance offers an alternative concept for each of the foundation blocks of standard finance, for example, according to Behavioral Finance investors are “normal” not “rational”, markets are not efficient, even if it is difficult to beat. Human beings are subject to emotions such as hope, fear, greed, regret, overconfidence etc which factors influences the investment decisions of both the capital investors in managing their investments and the fund managers in fund management.

In the free Market Economy, Capital Market in general and common stock market in particular is one of the blessings which ensures not only the circulation of money in the market but also creates unlimited possibilities to participate in the economic activities and in turn flourishing the economy of the country. This circulation of money is comparable as the blood circulation flow in the body. The Capital Market of a middle income country like Bangladesh does not behave rationally for that matter the price fluctuates unreasonably; It also poses a danger to the economy and the hazards are creating security threat, social disorder by hurting the interests of millions of people participating in the process. It is affecting the stakeholders, who are not less than 50 million. Though the common stock market is highly unpredictable, an increasing number of small investors who constitutes around 80% of the total share market participants/investors of Bangladesh are of middle and low income group people. The way the retail or small investors are increasing so the risk related to the investment, as the maximum of the new investors and fund managers are narrowly experienced and unaware of an important concept like Behavioral Finance, in particular cognitive components guiding their investment decisions. These decisions are often irrational, which in turn leads to market anomalies. Often question arises, “Does it prevail in Bangladesh?” As a result, the gravity of the risk as well as the possibility of loosing money is increasing. With the present numbering

more than 3 million investors' accounts (exact figure is 31,95,852) in the common stock market of Bangladesh are at a risk of loosing and there by posing a threat of a catastrophic disaster for the economy of Bangladesh. Falling of General index of major stock exchange of the country, ie, Dhaka Stock exchange from around 9500 to around 3500 within the time frame of one and half years and then continuing within 4400 for around two to three years, not only indicate the economic downturn but also something more which needs definite attention, needs to be analyzed. Again because psychology systematically explores human judgment, behavior, and well being, it can teach us important facts about how humans differ from traditional economic assumptions. As such the scope exists for the study of the Behavioral Finance (Cognitive Bias) and Common Stock Market Anomalies in Bangladesh where maximum market participants belong to little literate group and approach market with profound hope to change their middle or low income level.

This research has been conducted involving participants from trader, investor, authorized, director, fund manager, student, clerk, professional etc who are someway or other related to the capital market, since the study was intended to cover only the common stock market segment of the capital market, not the money market or other market prevails in the economy of the country. It was a research which was able to find a co-relation between some of the components of behavioural finance and the anomalies in the capital market via irrational investment decisions of the investors, traders and the market participants. Extensive research on secondary source data was conducted and primary data was the basis for the study to contribute some of the findings listed bellow:

General awareness of the individual investor or the retail investors are very less to function maintaining at least a minimum standard in the capital market of Bangladesh.

Research pertaining to the Bahavioral Finance and Market anomalies due to the irrational investment decisions of investors of Bangladesh is rare to find and are less circulated. Investors' awareness is less as well in this regard.

Risk and return due to the Rumour that prevails in the Common Stock Market of Bangladesh is not exactly gauged by the investors. Rumours get its wings taking the chance of hope and easy believing attitudes of the investors.

There are well known presence of gamblers in the common stock market of Bangladesh. This makes the market more unpredictable.

Accounting malpractices and corporate integrity is in question which not only eroding credibility and belief of the investors about the particular company but also building an image of specific personnel in the management.

Fund managers are aware of their job and its prospects, and trying to manage it. They like to be mediocre, go with the flow, rather becoming contrast by taking risk to identify issues which is uncommon to other fund managers.

Reliability and consistency of the Information Communication Technology (ICT) is though satisfactory, but to be improved to keep pace with the modern information technology era. Their products are not sufficiently up to date.

Timely dissemination of the accounting statements in the internet must be ensured to improve company image amongst the investor.

Irrational behavior of the investors and the managers contribute to irrational swings of the market. Market anomalies those result from irrational investment decisions are very difficult to predict, and loose investors' confidence and belief.

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND GLOSSARY

Abbreviation		Meaning
AGM	-	Annual General Meeting.
BAPT	-	Behavioral Asset Pricing Theory.
BBS	-	Bangladesh Bureau of Statistics.
BDT	-	Bangladeshi Taka .
BF	-	Behavioral Finance.
BOA	-	Beneficiary Owner's Account
BPT	-	Behavioral Portfolio Theory.
CAPM	-	Capital Asset Pricing Model.
CAPT	-	Capital Asset Pricing Theory.
CDBL	-	Central Depository of Bangladesh Limited
CSE	-	Chittagong Stock Exchange.
DJIA	-	Dow Jones Industrial Average.
DSE	-	Dhaka Stock Exchange.
EMA	-	Exponential Moving Average
EMS	-	Efficient Market Hypothesis.
EPS	-	Earning Per Share.
FDR	-	Fixed Deposit Return
GDP	-	Gross Domestic Product
IPO	-	Initial Public Offering
IMF	-	International Monetary Fund.
MACD	-	Moving Average Convergence Divergence
MPT	-	Modern Portfolio Theory.
MVPT	-	Mean-Variance Portfolio Theory.
NBV	-	Net Book Value.
NYSE	-	New York Stock Exchange
PE	-	Price to Earning
RJSE	-	Registrar of Joint Stock Exchange.
RSI	-	Relative Strength Index
S&P	-	Standard and Poor's

LIST OF ABBREVIATIONS AND GLOSSARY

SEC	-	Securities and Exchange Commission.
SMA	-	Simple Moving Average
TV	-	Television.
USD	-	United States Dollar (Currency).
UK	-	United Kingdom

Chapter One

INTRODUCTION

CONTENTS

1.1 BACKGROUND OF THE RESEARCH

‘I think of Behavioral Finance as simply "open-minded finance".’

—Thaler (1993)

Behavioral Finance is the study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on markets.

—Sewell (2005)

Traditional finance assumes that we are rational, while Behavioral Finance simply assumes, we are normal.

—Meir Statman

While people participate in the Capital Market of Bangladesh, they wonder by the spiralling upward motion of the price of stocks in the marketplace. It was not only the spiralling motion of stock price that wonders but also the huge influx of investors flow towards the market with a huge hope, greed and for many more reasons. It was a momentum of price increase like light speed, every morning people found their invested equity inflated like 20%, 30%. Becoming rich was near to possibly be materialized. Earning money was so easy. Common stock market participants also wondered why people took so much of pain to earn money. Why not everybody turn into the stock market? Why to take so much pain to earn, if earning was so easy? Numerous books started publishing in Bangladesh along with a huge sell pressure, as if each would become a best seller. All were talking about share market. Wherever participants went, frequently they picked sounds coming from chatting people about stock market, individual security pricing, its future turns, its future possibilities, right share, bonus share, primary share market and so on. It was discussed so much in the tea stall, in the public busses, playing fields, offices, over telephone as well as mobile, over direct conversation, in public communication media like newspaper, television, internet, in business organizations like broker houses, merchant banks and so on. People from different walks of life like students, teachers, government service holders, shopkeepers, rickshaw pullers, poor, rich, farmers, and middle

class all were in a mood to often welcome the discussions with the hope of unveiling any possibility to increase profit, to uncover any hidden treasures. All skilled, semiskilled or even novices in the capital market were running to wards the fulfilment of their aims. Money was floating everywhere. People did not mind to purchase the gourd of Tk 10 with Tk 18 or Tk 20. People were mad of withdrawing money from savings funds of banks, to avoid being called mad. Yes the person who can earn daily or at least weekly 15% or more, who else would keep money in banks as savings fund or Fixed Deposit Return (FDR) except mad at a rate of 10% or 12% annually?

Such was the motion to increase the index like bulls trying to tear off its lace. Really it was the bull market, people learned later. With money doubled or tripled within short time of 2, 3 or 4 months, all people putting money in the capital market were in a happy mood, laughing contended faces all around, hope installed happiness in faces, expenses increased dramatically and unnoticed. Newspaper reporting the competition of purchasing power in fish market like a fish bearing the value of Tk 200 was being sold as if it was tendered, with Tk 500. People had lot of money at their hands. Suddenly what happened, there were no sellers of shares, rather buyers were destroying the circuit breakers causing the market at an auto closure by the computer machines. People were too agitated for the auto closure by computers. Procession demonstrated on the streets to reopen the market, to increase the circuit breaker's range. The year was 2010-2011.

The next day there was a bump, causing the index to fall only a slight down at around 9200 from 9500. Thousands of hopeful people had sizable (as per their capability) investment in those days. Since then the market goes downwards. Some day increasing index by 200 and the next day it decreases 350. Like this till a long time it was going down and down for last three to four years. Now also the market is discussed, but in reverse way, as a place of horror, loosing of money, place of gambling, game of coin tossing or as some adjectives of same nature. Often there were demonstration in streets, some people committed suicide due to

the loss of capital in capital market. People were then trying to capitalize their losses by breaking rules of not only the Capital city of Bangladesh, but countrywide. Social unrest increased. People suffered from want of money. There were more street beggars and street snatchers reported to be encountered on the roads by the dailies. This was the reverse of the situation that prevailed during 9500 index. Then it was 3500. The year was 2012-2013.

Now the participants in the common stock market learn that both the buyer and the seller in the stock market take the risk.[1]

Often the participants ask themselves about their actions related to the stock market. They try to realize, rationalize, and reason it out. This realization encouraged the researcher team to conduct a research on studying the condition. As the situations are almost similar but having inverse relation, research on behavioral component would bring out some relation with the decisions. As such the research was limited on cognitive components of Behavioral Finance and anomalies in the common stock market of Bangladesh.

Capital Market of Bangladesh was one of the most talked about subject matter in the year (2010-2011) in Television (TV) as well as in the print media. At least one talk show or analysis type topic used to be presented in the mass media at least once in a week. When something is so much discussed, it is bound to draw attention of nationals and foreign nationals. Numerous political speeches also covered the Capital Market scenario of the country. The market volatility and irrationality was so grave that it drew the attention of international media even, and took the form of sore point of the government. Some people died of suicide out of the frustration grown from the very share market where they came with lot of hope. Law and order situation aggravated, people protested, inquiry boards found many anomalies in the management, set up of the system and above all the investors' irrationalities of multitude dimensions. Again and again government

[1] Benjamin Graham, The Intelligent Investor, P21

approached to solve the problem with newer promises. Some of them worked, some did not.

As part of the project a study has been carried out related to business as well as more relevant to the profession of the student. Being privileged to be an investor in the Capital Market of Bangladesh, the researcher had the opportunity to communicate with the fellow investors, concerned brokerage house and the merchant bank managers as well as other professionals related to the Capital Market of Bangladesh. As some of the investors also knew the researcher by face, and found him to accompany with their bandwagon while the market bubble burst, they spoke and responded to their best ability to express the experience and the feelings of the Capital Market of Bangladesh as they found it. The feelings, responses varied, though the primary focus was on the behavioural (cognitive components or biases) finance.

There are many potential reasons which are able to influence the Capital Market of Bangladesh. For example some of them can be named as the Herd Behaviour of investor at different level as the market depth is less; internet led access to information and trading; Macro Economic Factors; Risk and Cost Factors; Performance Factors and Confidence Level of institutional investors; sudden increase or decrease of oil price in international market; price fluctuation of foreign exchanges etc. There are many more reasons. Though some other studies were found about the Capital Market of Bangladesh, but unfortunately this apparently newer subject of finance (behavioural finance) was least analyzed and attended, though all of us more or less feel it in our daily financial decision let alone Capital Market Investments. This study gave ample opportunity to utilize the researcher's personal experience of working arena to be integrated into the study. Considering all, the topic has been chosen for study.

1.2 OPERATIONAL DEFINITIONS

Behavioral Finance

It is a relatively new field that seeks to combine behavioral and cognitive psychological theory with conventional economics and finance to provide explanations for why people make irrational financial decisions. It describes how human being/investors work.

A field of finance that proposes psychology-based theories to explain stock market anomalies. Within Behavioral Finance, it is assumed that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes.

Explanation of 'Behavioral Finance'

There have been many studies that have documented long-term (more than one year) historical phenomena in securities markets that contradict the efficient market hypothesis and cannot be captured plausibly in models based on perfect investor rationality. Behavioral Finance attempts to fill the void.

Modern Portfolio Theory (MPT):

Modern portfolio theory is useful under certain prescribed conditions, some of which are known about and some of which are not known. For example, MPT assumes continuous pricing, a world in which markets are free, societies are free and stable, and investors are rational wealth-maximizers. Events that occur outside these conditions are not merely events that fall several standard deviations outside what MPT would predict. Instead, they are events that have nothing whatever to do with MPT, but are governed instead by very different rules that can be understood only by reference to very different theories. In other words, MPT is descriptive, not prescriptive. And even insofar as MPT can be said to be prescriptive, its predictive accuracy about how markets will behave in the future is unusually low within any kind of time horizon relevant to human investors. Finally, MPT’s assumption that people are all and always rational wealth-maximizers, is clearly incorrect rather it describes how market works.

Prospect Theory

Traditionally, it is believed that the net effect of the gains and losses involved with each choice are combined to present an overall evaluation of whether a choice is

desirable. Academics tend to use "utility" to describe enjoyment and contend that people prefer instances that maximize the utility. However, research has found that people don't actually process information in such a rational way. In 1979, Kahneman and Tversky presented an idea called prospect theory, which contends that people value gains and losses differently, and, as such, will base decisions on perceived gains rather than perceived losses. Thus, if a person were given two equal choices, one expressed in terms of possible gains and the other in possible losses, people would choose the former - even when they achieve the same economic end result. According to prospect theory, losses have more emotional impact than an equivalent amount of gains. For example, in a traditional way of thinking, the amount of utility gained from receiving $50 should be equal to a situation in which one gained $100 and then lost $50. In both situations, the end result is a net gain of $50. However, despite the fact that one still end up with a $50 gain in either case, most people view a single gain of $50 more favourably than gaining $100 and then losing $50.

Efficient Market Hypothesis (EMH)

In 1884 Charles Dow and Eddie Jones first published the Dow Jones Average Index (Achleitner, 1999). This index constructed of average share prices of selected US companies was the empirical database for Dow’s development of his approach to predict share prices, later named the Dow Theory. He supposed a cyclic development of share prices and therefore stated that the technical analyses of charts would give information on future share prices. He recognised general trends, momentum and trend reversals. This was the birth of technical analysis and the chartists approach. Later his work was advanced by Ralph Nelson Elliott (Market Screen, 2000). He concluded that the movement of the stock market could be predicted by observing and identifying a repetitive pattern of waves. Since his intention was to find a model for general economic development, Elliott believed that all of man's activities, not just the stock market, were influenced by these identifiable series of waves.

An outstanding academic contribution was made by Louis Bachelier. Examining the dynamics of price developments, he recognised the M07555 International

Investment and Finance Oxford Brookes University numerous factors involved in asset pricing. Therefore he concluded that no certain expectation is possible and that trading is a “Fair Game”. Later, his theory was modified in several papers and gave raise to the theory of the random walk. The level of information efficiency is of the essence within these approaches.

Capital Asset Pricing Model (CAPM)

A model that describes the relationship between risk and expected return and that is used in the pricing of risky securities.

$$\bar{r}_a = r_f + \beta_a(\bar{r}_m - r_f)$$

Where:
r_f = Risk free rate
β_a = Beta of the security
$\bar{r}_m$ = Expected market return

The general idea behind CAPM is that investors need to be compensated in two ways: time value of money and risk. The time value of money is represented by the risk-free (rf) rate in the formula and compensates the investors for placing money in any investment over a period of time. The other half of the formula represents risk and calculates the amount of compensation the investor needs for taking on additional risk. This is calculated by taking a risk measure (beta) that compares the returns of the asset to the market over a period of time and to the market premium (rm-rf).

These theories assume that people, for the most part, behave rationally and predictably.

Cognitive Components

The dictionary meaning of cognition is given bellow:

1. The mental process of knowing, including aspects such as awareness, perception, reasoning, and judgment.

2. That which comes to be known, as through perception, reasoning, or intuition; knowledge.

3. (Psychology) the mental act or process by which knowledge is acquired, including perception, intuition, and reasoning.

4. The knowledge that results from such an act or process

Face Value

The Face value is the value of a coin, stamp or paper money, as printed on the coin, stamp or bill itself by the minting authority. While the face value usually refers to the true value of the coin, stamp or bill in question (as with circulation coins) it can sometimes be largely symbolic, as is often the case with bullion coins. For example, a one troy ounce (31 g) American Gold Eagle bullion coin was worth and sold for about $1200 during 2009 market prices (as of November 14, 2009) and yet has a face value of only $50.

In the case of stock certificates, face value is the par value of the stock. In the case of common stock, par value is largely symbolic. In the case of preferred stock, dividends may be expressed as a percentage of par value.

Par Value

Par value, in finance and accounting, means stated value or face value. From this comes the expressions at par (at the par value), over par (over par value) and under par (under par value). Par value stock has no relation to market value and, as a concept, is somewhat archaic. The par value of a share of stock is the value stated in the corporate charter below which shares of that class cannot be sold upon initial offering; the issuing company promises not to issue further shares below par value, so investors can be confident that no one else will receive a more favorable issue price. Thus, par value is the nominal value of a security which is determined by the issuing company to be its minimum price. This was far more important in unregulated equity markets than in the regulated markets that

exist today. Par value also has bookkeeping purposes. It allows the company to put the minimum value for the stock on the company's financial statement. Many common stocks issued today do not have par values; those that do (usually only in jurisdictions where par values are required by law) have extremely low par values (often the smallest unit of currency in circulation), for example a penny par value on a stock issued at $25/share. Most states do not allow a company to issue stock below par value.

Book Value

1. The value at which an asset is carried on a balance sheet. To calculate, take the cost of an asset minus the accumulated depreciation.

2. The net asset value of a company, calculated by total assets minus intangible assets (patents, goodwill) and liabilities.

3. The initial outlay for an investment. This number may be net or gross of expenses such as trading costs, sales taxes, service charges and so on.

Also known as "net book value (NBV)". In the U.K., book value is known as "net asset value".

Explanation of 'Book Value'

Book value is the accounting value of a firm. It has two main uses:

1. It is the total value of the company's assets that shareholders would theoretically receive if a company were liquidated.

2. By being compared to the company's market value, the book value can indicate whether a stock is under or overpriced.

3. In personal finance, the book value of an investment is the price paid for a security or debt investment. When a stock is sold, the selling price less the book value is the capital gain (or loss) from the investment.

In accounting, book value or carrying value is the value of an asset according to its balance sheet account balance. For assets, the value is based on the original cost of the asset less any depreciation, amortization or impairment costs made against the asset. Traditionally, a company's book value is its total assets minus intangible assets and liabilities. However, in practice, depending on the source of the calculation, book value may variably include goodwill, intangible assets, or both. When intangible assets and goodwill are explicitly excluded, the metric is often specified to be "tangible book value".

Market Value

Market value is the price at which an asset would trade in a competitive auction setting. Market value is often used interchangeably with *open market value*, *fair value* or *fair market value*, although these terms have distinct definitions in different standards, and may differ in some circumstances.

International Valuation Standards defines market value as "the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion."

Market value is a concept distinct from market price, which is "the price at which one can transact", while market value is "the true underlying value" according to theoretical standards. The concept is most commonly invoked in inefficient markets or disequilibrium situations where prevailing market prices are not reflective of true underlying market value. For market price to equal market value, the market must be informationally efficient and rational expectations must prevail. Market value is also distinct from fair value in that fair value depends on

the parties involved, while market value does not. For example, fair value "requires the assessment of the price that is fair between two specific parties taking into account the respective advantages or disadvantages that each will gain from the transaction. Although market value may meet these criteria, this is not necessarily always the case. Fair value is frequently used when undertaking due diligence in corporate transactions, where particular synergies between the two parties may mean that the price that is fair between them is higher than the price that might be obtainable in the wider market. In other words "special value" may be generated. Market value requires this element of "special value" to be disregarded, but it forms part of the assessment of fair value.

Intrinsic Value

The actual value of a company or an asset based on an underlying perception of its true value including all aspects of the business, in terms of both tangible and intangible factors. This value may or may not be the same as the current market value. Value investors use a variety of analytical techniques in order to estimate the intrinsic value of securities in hopes of finding investments where the true value of the investment exceeds its current market value.

Explanation of 'Intrinsic Value'

For example, value investors that follow fundamental analysis look at both qualitative (business model, governance, target market factors etc.) and quantitative (ratios, financial statement analysis, etc.) aspects of a business to see if the business is currently out of favor with the market and is really worth much more than its current valuation.

In finance, intrinsic value refers to the value of a security which is intrinsic to or contained in the security itself. It is also frequently called fundamental value. It is ordinarily calculated by summing the future income generated by the asset, and discounting it to the present value. Simply put, it is the actual value of a security as opposed to the market or book value.

Annual General Meeting (AGM)

An annual general meeting (commonly abbreviated as AGM, also known as the annual meeting) is a meeting that official bodies, and associations involving the public (including companies with shareholders), are often required by law (or the constitution, charter, by-laws etc. governing the body) to hold. An AGM is held every year to elect the board of directors and inform their members of previous and future activities. It is an opportunity for the shareholders and partners to receive copies of the company's accounts as well as reviewing fiscal information for the past year and asking any questions regarding the directions the business will take in the future.

Dividend Policy

The policy a company uses to decide how much it will pay out to shareholders in dividends. While taking dividend decision, the decision body make use of the dividend policy to take the decision.

Market Trend

The use of "bull" and "bear" to describe markets comes from the way the animals attack their opponents. A bull thrusts its horns up into the air while a bear swipes its paws down. These actions are metaphors for the movement of a market. If the trend is up, it's a bull market. If the trend is down, it's a bear market. [2]

Bull Market

A financial market of a group of securities in which prices are rising or are expected to rise. The term "bull market" is most often used to refer to the stock market, but can be applied to anything that is traded, such as bonds, currencies and commodities.

Explanation of 'Bull Market'

[2] Investopedia (http://www.investopedia.com)

Bull markets are characterized by optimism, investors' confidence and expectations that strong results will continue. It's difficult to predict consistently when the trends in the market will change. Part of the difficulty is that psychological effects and speculation may sometimes play a large role in the markets.

Bear Market

A market condition in which the prices of securities are falling, and widespread pessimism causes negative sentiment to be self-sustaining. As investors anticipate losses in a bear market and selling continues, pessimism only grows. Although figures can vary, for many, a downturn of 20% or more in multiple broad market indexes, such as the Dow Jones Industrial Average (DJIA) or Standard & Poor's 500 Index (S&P 500), over at least a two-month period, is considered an entry into a bear market.[3]

Explanation of 'Bear Market'

A bear market should not be confused with a correction, which is a short-term trend that has the duration of less than two months. While corrections are often a great place for a value investor to find an entry point, bear markets rarely provide great entry points, as timing the bottom is very difficult to do. Fighting back can be extremely dangerous because it is quite difficult for an investor to make stellar gains during a bear market unless he or she is a short seller.

Price to Earning Ratio (P/E Ratio)

A valuation ratio of a company's current share price compared to its per-share earnings. This is highly consulted and relied measurement of the underlying common stock by the investors.

Calculated as:

[3] Investopedia (http://www.investopedia.com)

Market Value per Share

Earnings per Share (EPS)

For example, if a company is currently trading at $43 a share and earnings over the last 12 months were $1.95 per share, the P/E ratio for the stock would be 22.05 ($43/$1.95).

EPS is usually from the last four quarters (trailing P/E), but sometimes it can be taken from the estimates of earnings expected in the next four quarters (projected or forward P/E). A third variation uses the sum of the last two actual quarters and the estimates of the next two quarters. Also sometimes known as "price multiple" or "earnings multiple".

Explanation of 'Price-Earnings Ratio - P/E Ratio'

In general, a high P/E suggests that investors are expecting higher earnings growth in the future compared to companies with a lower P/E. However, the P/E ratio doesn't tell us the whole story by itself. It's usually more useful to compare the P/E ratios of one company to other companies in the same industry, to the market in general or against the company's own historical P/E. It would not be useful for investors using the P/E ratio as a basis for their investment to compare the P/E of a technology company (high P/E) to a utility company (low P/E) as each industry has much different growth prospects.

The P/E is sometimes referred to as the "multiple", because it shows how much investors are willing to pay per dollar of earnings. If a company were currently trading at a multiple (P/E) of 20, the interpretation is that an investor is willing to pay $20 for $1 of current earnings.

It is important that investors note an important problem that arises with the P/E measure, and to avoid basing a decision on this measure alone. The denominator (earnings) is based on an accounting measure of earnings that is susceptible to forms of manipulation, making the quality of the P/E only as good as the quality of the underlying earnings number.

Earning Per Share (EPS)

The portion of a company's profit allocated to each outstanding share of common stock. Earning per share serves as an indicator of a company's profitability.

Calculated as:

$$= \frac{\text{Net Income - Dividends on Preferred Stock}}{\text{Average Outstanding Shares}}$$

When calculating, it is more accurate to use a weighted average number of shares outstanding over the reporting term, because the number of shares outstanding can change over time. However, data sources sometimes simplify the calculation by using the number of shares outstanding at the end of the period.

Diluted EPS expands on basic EPS by including the shares of convertibles or warrants outstanding in the outstanding shares number.

Explanation of 'Earning Per Share - EPS'

Earning per share is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio.

For example, a company has a net income of $25 million. If it pays out $1 million in preferred dividends and has 10 million shares for half of the year and 15 million shares for the other half, the EPS would be $1.92 (24/12.5). First, the $1 million is deducted from the net income to get $24 million, then a weighted average is taken to find the number of shares outstanding (0.5 x 10M+ 0.5 x 15M = 12.5M).

An important aspect of EPS that's often ignored is the capital that is required to generate the earnings (net income) in the calculation. Two companies could generate the same EPS number, but one could do so with less equity

(investment) - that company would be more efficient at using its capital to generate income and, all other things being equal, would be a "better" company. Investors also need to be aware of earnings manipulation that will affect the quality of the earnings number. It is important not to rely on any one financial measure, but to use it in conjunction with statement analysis and other measures.

Relative Strength Index (RSI)

A technical momentum indicator that compares the size of recent gains to recent losses, in an attempt to determine overbought and oversold conditions of a stock. Stocks with more or strong gains have a higher RSI than stocks that had more or stronger losses.

Simple Moving Average (SMA)

A simple or arithmetic moving average is the average stock price over a certain period of time. It adds up the closing price of the security for a given period and then divides the total by the number of intervals. Short time average respond quickly to changes in the price of the stock, so appear less steady, while long time averages are slow to react.

Exponential Moving Average (EMA)

A type of moving average that is similar to a simple moving average, except that more weight is given to the latest data. The exponential moving average is also known as “exponentially weighted moving average”.

Bollinger Band

A band that provides a relative definition of high and low that was developed by famous technical trader John Bollinger. By definition, prices are high at the upper band and low at the lower band. The bands usually plot two standard deviations away from a single moving average. Because the standard deviation is a measure of volatility, the bands adjust themselves to market conditions. When the markets become volatile, the bands widen (move further away from the average); during less volatile periods, the bands contract. The closer the prices

move to the upper band, the more overbought the market, and the closer the prices move to the lower band, the more oversold the market.

MACD (Moving Average Convergence Divergence)

A trend- following momentum indicator that shows the relationship between two moving averages of prices. It is used to spot changes in the strength, direction, momentum, and duration of a trend in a stock's price.

Divergence

This happens when a security's price diverges from the MACD. It signals the end of the current trend.

1.3 SIGNIFICANCE AND RATIONALE OF THE RESEARCH

'Because psychology systematically explores human judgment, behavior, and well-being, it can teach important facts about how humans differ from traditional economic assumptions. So it will be worth while to study the subject matter in the Capital Market of Bangladesh which is a very vital part of the economics that is very crucial to impact the overall development of the country.

Bangladesh is a lower middle income country. Since its independence it is struggling its way forward to establish itself as politically stable country. Economic stability is another dimension of persuasion. 85% people are still in economic crisis where as 36% people are living below poverty level[4]. The impact of economic crisis has multipronged effect, such as, health, education, social security etc and many more.

STOCK MARKET is the gift of the economists to the society, to the people in the free market economy, to the investors, to the speculators, to every individual related to the economic activities in any way or other. It is simply amazing which

[4] Ministry of Finance Website : http://www.mof.gov.bd/en/

is actively able to create ample of opportunities. It is mister market[5] ready for all in general and for actionist in particular. For smooth flow of the economy, stock markets necessity knows no bounds, and its smooth functioning got to be smooth. For example as unhindered blood circulation of a body is a must for its sound health, same is the case with the stock market to the healthy economy. In other words, CAPITAL MARKET can be considered with considerable amount of force as the barometer of the economy. A glance toward developed countries of the world provides evidence of this point and it tends to be more feasible and clear. Bigger economy has better sound and huge influence of the Capital Market in that economy.

Often people behave like, well, human beings. People make decisions on the basis of biases that don't reflect real world facts and allow their responses to decisions to depend on how the questions are framed. People engage in complex mental accounting, ignoring the fact that various asset baskets are all interrelated and allow themselves to be driven by hopes and fears, rather than facts. COMMON STOCK MARKET as it sound, is of nature which actually needs more easy common sense to understand. Someone wants to understand it and has vestige of little attention and interest, will be able to understand. Neither one need to attain a Ph D/Masters nor need a complexly complicated knowledge of Mathematics /Business to understand the common stock market. As in Bangladesh the literary rate is still not good enough to be satisfied, people having a bit common sense (of course they think so) were attracted by the Capital Market. Simple knowledge of buying low and selling high and thereby making huge profit in the bull market was the key point to understand by many investors. Many were not aware of the facts that humans are subject to emotional bias, which could potentially influence the investment decision. Often people come across the words that the market was manipulated by the gamblers. There were too much market swings and thereby many people lost their capital. The mutual fund managers were unable to protect their share price to remain at the price of at par. Of course there are many reasons which contribute to the bull and bear

[5] Benjamin Graham, *The Intelligent Investor Revised Edition (Collins Business, 2006),* p

market formation. “Cognitive components of behavioral finance” is one such factor.

1.4 ASSUMPTIONS OR LIMITATIONS OF THE RESEARCH

- The study had been limited to Capital Market of Bangladesh only.
- The scope is further limited to the study of the behavioural finance’s cognitive components only.
- Research needs abundance of primary data which should be collected through interviews, surveys and case studies. Due to time frame enough interviews, surveys and case studies could not be conducted.
- Some of the statistics and data are secondary in nature, which are utilized for the purpose of the study only.

Chapter Two

OBJECTIVES

CONTENTS

2.1 STATEMENT OF THE RESEARCH ISSUE

The main issues related to this study are to ascertain the cognitive biases of behavioural finance that prevail in the investment/speculation activities of Bangladesh Capital Market and how they impact the market to cause market anomalies. According to conventional economics, emotions and other extraneous factors do not influence people when it comes to making economic choices. In most cases, however, this assumption doesn't reflect how people behave in the real world. The fact is people frequently behave irrationally. Considering how many people purchase lottery tickets in the hope of hitting the big jackpot make it further clear. From a purely logical standpoint, it does not make sense to buy a lottery ticket when the odds of winning are overwhelming against the ticket holder (roughly 1 in 146 million, or 0.0000006849%, for the famous Powerball jackpot). Despite this, millions of people spend countless dollars on this activity.

This study finds out some anomalies which exist in Bangladesh market and ascertain whether those anomalies have any relation with the cognitive components of the behavioural finance at large. These anomalies which already prompted academics to look to cognitive psychology to account for the irrational and illogical behaviors that modern finance had failed to explain. Behavioral Finance seeks to explain our actions, whereas modern finance seeks to explain the actions of the "economic man". Human emotions and cognitive biases play an important role in the investment decision of managers and investors. It is the claimed proponent of Behavioral Finance. BF combines the twin disciplines of psychology and economics to explain why and how people make seemingly irrational or Illogical decisions when they spend, invest, save and borrow money. It offers an alternative concept for each of the foundation blocks of standard finance. For example according to BF investors are “normal” not rational, markets are not efficient. Human beings are subject to emotions such as hope, fear, greed, regret etc which factors contribute to the investment decision of both the investors and the fund managers. In the free Market economy Capital Market is one of the blessings which ensures not only the circulation of money in the market but also creates an unlimited possibility to participate in the economic

activity in the economy of the country as comparable as a blood flow in the body. The Capital Market of a country like Bangladesh does not behave reasonably for that matter the price fluctuates unreasonably; It also poses a danger to the economy and hazards creating security threat, social disorder by hurting the interest of millions of people participating in the process. Though the Share Market is highly unpredictable an increasing number of small investors who constitutes around 80% of the total share market participants/investors of Bangladesh are of middle and low income group people. The way the investors are increasing so the risk related to the investment, as the maximum of the new investors are inexperienced and unaware of the behavioral components guiding their investment decisions. As a result the gravity of the risk as well as possibility of loosing money is increasing. With the present numbering more than 3 million investors in the common stock market of Bangladesh are at a risk of loosing and thereby posing a threat of a catastrophic disaster for the economy of the country. Falling of index of major stock exchange of the country, ie, Dhaka Stock exchange from 9500 to 3500 within the time frame of two years, not only indicate the economic downturn but something more which needed to be analyzed. Again because psychology systematically explores human judgment, behavior, and well being, it can teach important facts about how humans differ from traditional economic assumptions. As such the scope existed for the exploration of the Behavioral Finance (Cognitive Bias) and Common Stock Market Anomalies in Bangladesh.

2.2 RESEARCH QUESTIONS

Many questions in the mind of the population as well as in the mind of the researcher peeps up which intrigues the study. Vital questions were:

#. Do cognitive components of behavioural finance exist in the participants of the common stock market?

What are the components influence the decisions?

Is there any impact of that changed decisions in the Common stock market?

Upto what extent those impacts are affecting the market?

2.3 HYPOTHESIS OF THE STUDY

Investors' optimism that nothing can go wrong attitude is that they believe the stock price to rise for the next few months or at least a year and they plan to increase their investment in Bangladesh Common Stock Market. Again investors' pessimism that nothing can go right attitude is that they believe the stock price to go further down for the next few months or at least a year and they plan to decrease their investment in Bangladesh Common Stock Market. Hence the following hypothesis was formulated and tested.

"Investors' investment decisions are influenced by the cognitive components of behavioural finance which leads to irrational investment behaviour/ decision resulting to the creation of market anomalies".

2.4 OBJECTIVES OF THE RESEARCH

People sometimes make choices that are not in their long-run interest. The investors' sentiment can be defined as investors' attitude and opinion towards investing in the stocks. The aim of this research was to analyse the individual investor's sentiment. This study also analysed the influence of market specific factors on investors' sentiment. The investor's attitude towards investing is influenced by rumours, intuition, herding behaviour and many more.

2.4.1 Major Objective

The general purpose of this study was to determine the cognitive components of Behavioral Finance those influence the investment decisions of investors and fund managers of Bangladesh, impacts of such components that contributed to shape the present conditions in the Common Stock Market of Bangladesh. This study also helps the investors/managers in this market to understand the common stock market

of Bangladesh. A careful review of those question areas led to the development of the following general research objectives:

To explore Behavioral Finance's cognitive components.
To outline the experience and knowledge level of the investors about investing in stock market.
To identify the investors categories.
To determine the existence of the impact of cognitive components in the Capital Market.
To indentify the anomalies of the Capital Market.
To identify few of the planning dilemma of the market participants.

2.4.2 Specific Objective

- ❖ To determine the cognitive components of Behavioral Finance that has influence in investment decisions in the common stock market of Bangladesh.
- ❖ To identify the symptoms of cognitive biases in the operation of common stock market of Bangladesh.
- ❖ To analyze individual investor's cognitive biases in decision making.
- ❖ To find out the impact of investors' sentimental decisions on the stock market in Bangladesh.
- ❖ To examine the common stock market anomalies in relation to Behavioral Finance.
- ❖ To suggest how best these impacts could be reduced.

Chapter Three

METHODOLOGY

CONTENTS

3.1 INTRODUCTION

This study used both quantitative and qualitative methods. Due to constraints in time and resources, the study was done in metropolitan Dhaka and its neighbourhood in the area Narsingdi and Gazipur. A quantitative survey was done to explore knowledge, awareness and to ascertain related components of BF and related issues. While the qualitative component comprised of interviews and observations. The following figure illustrates the research approach employed in this study as described above.

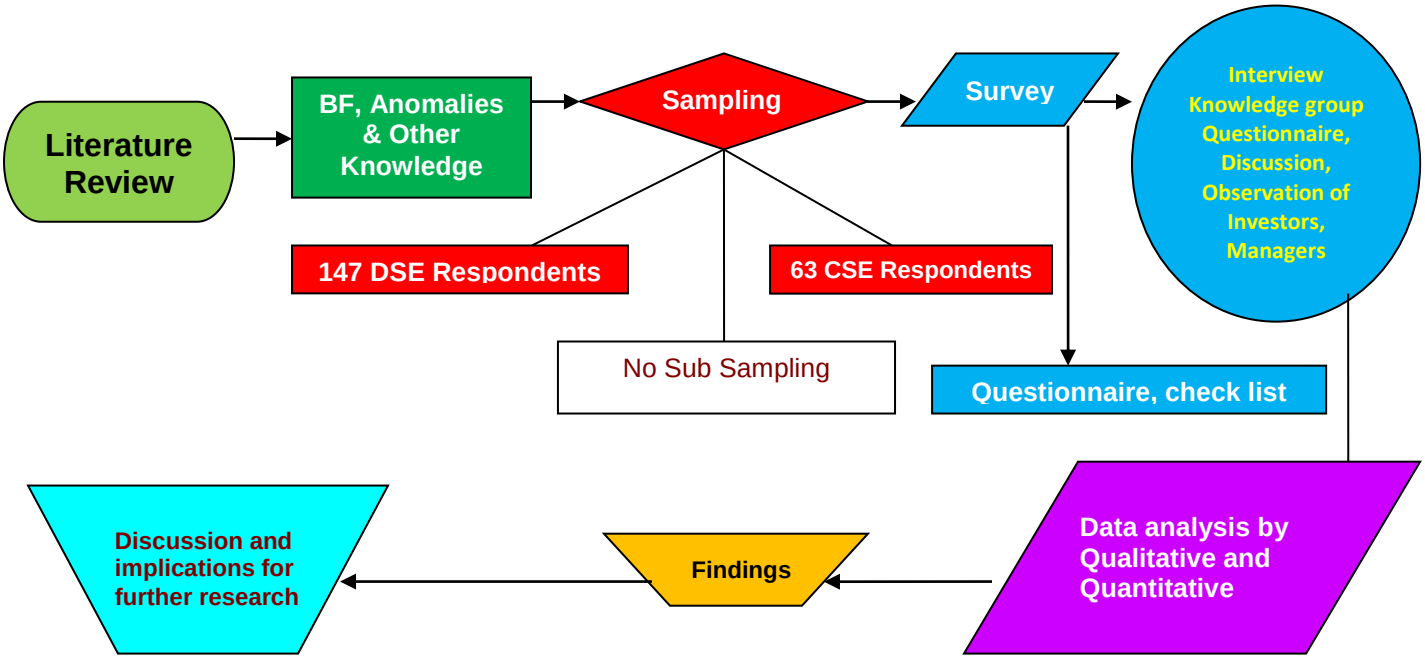


Figure 3.1: Methodological approach and research design flow chart

3.2 POPULATION PARAMETERS

Capital Market of Bangladesh is recently going on in a bear trend. It started for last four/five years since the end of 2010, prior to which there had been a bull trend. Many beneficiary accounts were been frozen or deactivated, due to multiple reasons. However the account states has been considered to its full extent that prevailed during bull trend, since the participation in that condition was spontaneous, and the study needed the experience of both the bull and bear trend. It was near about 3.2 million and some more three lakhs were considered

as directly involved in the operational activities of the Capital Market of Bangladesh.

3.3 SAMPLE DESIGN & SIZE.

A survey of approximately 210 individuals throughout the country provided the database for the study. The sample was selected basing on probability technique following stratified sampling procedure from all over the country. Eligible respondents were adults over the age of 20 and any way related to the stock market. These respondents were administered a structured schedule, containing pre-validated scales to measure the investor sentiment. When there were more than one respondent at a place then they were interviewed separately on a random basis.

3.3.1 Different Strata.

As the total number of personnel related to share market directly is about 3.5 million including the executives and BO account holders, so the total number of respondents was 210, which represented .006% of the total strength. Again respondents were from both the stock exchanges, ie, CSE and DSE, since there are only 2 stock exchanges in Bangladesh. Different strata that were feasible and relevant categories were as under:

@ **DSE**. It holds population size of approximately 24,50,000. This is 70% of the total population. Hence the respondents from DSE were 70% of 210 which is 147.

@ **CSE**. It holds population size of approximately 10,50,000, which is 30% of the total population. Hence the respondents from CSE were be 30% of 210 which is 63.

The sub category of each strata was constituted with following groups of respondents: Distribution for CSE was as follows

Participants involved in share business:- 9 respondents from 3 separate broker houses outside the trading time.

Participants involved in share business:- 30 respondents from 5 separate broker houses during the trading time.

Executives related to share market:- 10 respondents from 5 separate broker houses during the trading time or from home/residence, taking the address from the broker houses.

% Director of Broker Houses:- 5 respondents

% Authorized personnel of Broker houses:- 5 respondents

Merchant bank executives:- 4 respondents during the trading time or from home/residence, taking the address from the bank.

The samples for DSE will be as proportionate (nearest upper whole number for broken proportion) as of sub categories shown above.

3.4 VARIABLES COVERED

The survey was conducted where following variables were used:

Years of Experience,
Number of Issues in Portfolio,
Frequency of Analysis of the Security,
Knowledge of 1996 share market crash,
Types of market participants are involved,
Duration of investment,
Sources of information,
Investor's type,
Emotional Conditions of investors under varied time, outcome of market,
Acceptance of Loan Margin,
Range of present profit/loss,
Occupation of the participants,

Subject of reliance,
Behavior traits of the investors,
Decision State of the investors,
Market condition etc.

The variables used are independent of nature. Direct response had been sought from the respondents, and it was converted to percentage. From total 210 respondents the responses were collected and variables were measured.

3.5 METHODS OF DATA COLLECTION AND DATA COLLECTION INSTRUMENTS USED

Once the research design had been formalized the process of gathering information from respondents started. The researcher himself with one assistant conduct the survey interviews. Number of days broker houses were visited to take the interviews and to observe the trading time behavior of the investors and executives. Some of the qualitative aspects were covered through mobile conversation, asking unstructured questionnaire to some executives and directors. Investors' interviews were in a printed questionnaire form, where some structured and open ended questions were set for the respondents to answer. The questionnaire is as per annex A to this research report.

3.6 CONSISTENCY CHECKING

In each sub groups 1/2 more respondents were interviewed, which served the purpose of consistency and these additional data was exclusively utilized by the researcher to fill/cover up discrepancies. Few answers were not legible, and the meaning could not be retrieved. Some places the construction of sentences revealed ambiguous meanings. In those cases researcher's own judgement was used to make the correct adjustment.

3.7 TOOLS AND TECHNIQUES

Questionnaire

A pre-tested structured questionnaire (see appendix A) was used for eliciting relevant information on behavioral finance components which is called cognitive

components from the investors. It revealed knowledge level, categories or segment of the mass investors, the process of taking decisions, present status of their profit/loss etc. In a face-to-face interview with the director mainly revealed some qualitative dimensions like ways to overcome the biasness while taking decisions, overall market conditions etc. The In-Depth interviews were conducted by the researcher physically.

Checklist for In-Depth Interview

Indepth interview checklist was decorated by open ended questions where respondents had the opportunity to describe many things about their professional life such as their educational background, professional problems, challenges suggestion etc.

Checklist for observation

To make the research meaningful, the researcher conducted several observation sessions in separate four broker houses who are member of different stock exchanges. In observation sessions it was tried to search the symptoms of cognitive biases and decision anomalies resulting market anomalies. Again it was an opportunity for the researcher to study the feasibility of findings gathered through interviews and structured questionnaire. Five steps were followed for observation that is described in a diagram.

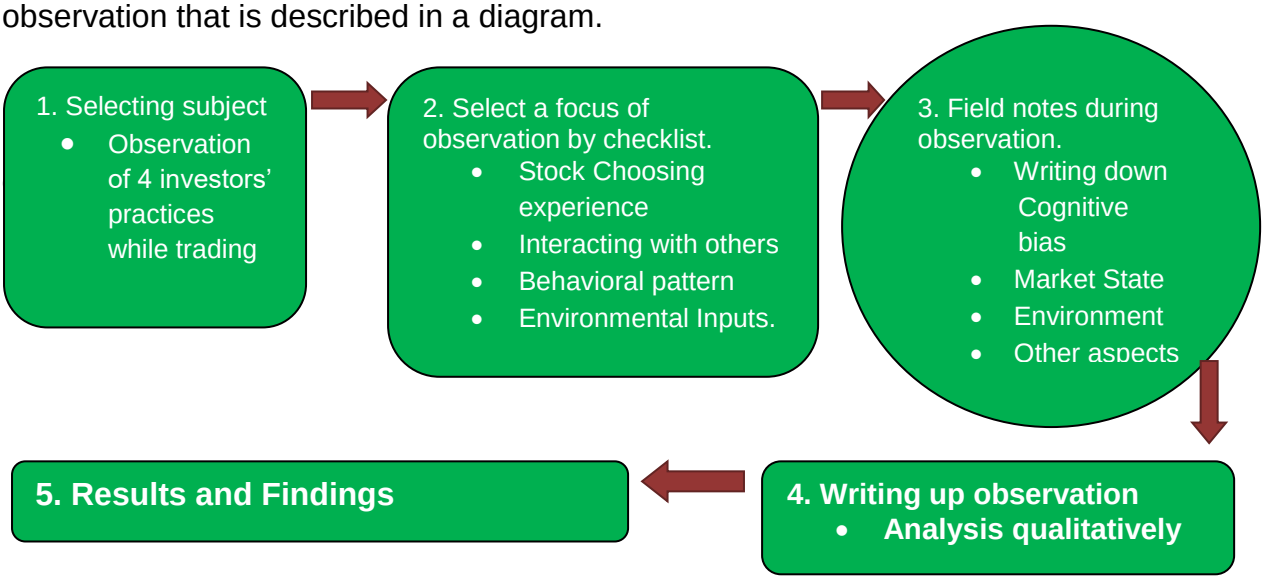


Figure 3.2: Observation Method Flow Chart

The survey

After constructing the questionnaires and plan for the whole research tools were finalized for the final survey. Questionnaires survey was conducted by face-to-face interview and each investor took 45 minutes to 1 hour. For in-depth interview, a 20-30 minute interview was conducted by face to face and telephone interview was of short session like 10-15 minutes. Observation was conducted in four broker houses for two to three hours according to the schedule.

3.8 DATA PROCESSING AND ANALYSIS/DATA ANALYSIS PLAN

Once the fieldwork was completed, the data was converted into a format that helped to take the decision. Data processing was started with editing and coding. While editing, the data collection forms were checked for omissions, legibility and consistency in classification. The coding process was done using the computer. After processing, analysis of the data was done to determine consistent patterns and summarizing the appropriate details revealed in the investigation.

Data Analysis

Survey data was entered into Microsoft Office 2007 Spread Sheet (XL 2007) software and analysis was done in this study. The analysis looked at the straight numbers of the responses and the resultant percentage of the variables, giving out the analysis explored the situation of participants' behavioral components leading to market anomalies.

Qualitative data were analyzed manually. Content analysis was done. Results are presented comparing and considering different types of respondents and the relationship between knowledge and practice of the market and individual capacities and authorities, opinions etc.

3.9 REPORT PREPARATION

A printed report is prepared, and an oral and power point presentation of the findings is also made by the researcher. The research report will be effectively communicated with the research findings.

3.10 BUDGET AND TIME SCHEDULE

This study required good financial support. Initially the researcher started with BDT 50,000 with time duration of 6 months.

3.11 COMPOSITION OF RESEARCH TEAM

I myself acted as the field worker, analyzer, coder, and the editor for this research.

Chapter Four

REVIEW OF THE LITERATURE

CONTENTS

4.1 INTRODUCTION

Literature review has given a deep inside of the subject matter. Many foreign literature has been found about the very subject, ie, the behavioural finance and common stock market anomalies, where as domestic literature regarding it is limited. Here the review is unfolded for our better assimilation.

4.2 REVIEW OF THE LITERATURE

In standard finance, also known as Modern Portfolio Theory (MPT) has four foundation blocks: (1) Investors are rational. (2) Markets are efficient. (3) Investors should design their portfolios according to the rules of Mean-Variance Portfolio Theory (MVPT) and in reality do so. (4) Expected returns are a function of risk and risk alone. Modern portfolio theory is indeed modern, dating back to the late 1950s and early 1960s. Merton Miller and Franco Modigliani described investors as rational in 1961. Eugene Fama described markets as efficient in 1965. Harry Markowitz prescribed Mean-Variance Portfolio Theory in its early form in 1952 and in its full form in 1959. William Sharpe adopted Mean-Variance Portfolio Theory as a description of investor behavior and in 1964 introduced the Capital Asset Pricing Theory (CAPT). According to this theory, differences in expected returns are determined only by differences in risk, and beta is the measure of risk.

Behavioral Finance offers an alternative concept for each of the foundation blocks of standard finance. According to Behavioral Finance, investors are “normal,” not rational. Markets are not efficient, even if they’re difficult to beat. Investors design portfolios according to the rules of Behavioral Portfolio Theory (BPT), not Mean-Variance Portfolio Theory (MVPT). And expected returns follow Behavioral Asset Pricing Theory (BAPT), in which risk is not measured by beta and expected returns are determined by more than risk.

4.2.1 Important Contributors

Like every other branch of finance, the field of Behavioral Finance has certain people who have provided major theoretical and empirical contributions. The

following section provides a brief introduction to few of the famous names associated with the field.

Daniel Kahneman and Amos Tversky

Cognitive psychologists Daniel Kahneman and Amos Tversky are considered the fathers of behavioral economics/finance. Since their initial collaborations in the late 1960s, this duo has published about 200 works, most of which relate to psychological concepts with implications for Behavioral Finance. In 2002, Kahneman received the Nobel Memorial Prize in Economic Sciences for his contributions to the study of rationality in economics. Kahneman and Tversky have focused much of their research on the cognitive biases and heuristics (i.e. approaches to problem solving) that cause people to engage in unanticipated irrational behavior. Their most popular and notable works include writings about prospect theory and loss aversion. In the year 2002, Daniel Kahneman won the Nobel for his work in Behavioral Finance, and suddenly investors everywhere were looking at Behavioral Finance techniques to improve their risk adjusted performance. In fact, Kahneman (and his colleague, Amos Tversky) did their key work back in the 1970s.

Richard Thaler

While Kahneman and Tversky provided the early psychological theories that would be the foundation for Behavioral Finance, this field would not have evolved if it weren't for economist Richard Thaler. During his studies, Thaler became more and more aware of the shortcomings in conventional economic theories as they relate to peoples' behaviors. After reading a draft version of Kahneman and Tversky's work on prospect theory, Thaler realized that, unlike conventional economic theory, psychological theory could account for the irrationality in behaviors. Thaler went on to collaborate with Kahneman and Tversky, blending economics and finance with psychology to present concepts, such as mental accounting, the endowment effect and other biases.

Fama (1998)

'Recent literature in empirical finance is surveyed in its relation to underlying behavioral principles, principles which come primarily from psychology, sociology

and anthropology. The behavioral principles discussed are: prospect theory, regret and cognitive dissonance, anchoring, mental compartments, overconfidence, over and under reaction, representativeness heuristic, the disjunction effect, gambling behavior and speculation, perceived irrelevance of history, magical thinking, quasi magical thinking, attention anomalies, the availability heuristic, culture and social contagion, and global culture.'

Shiller (1998)

'The field of modern financial economics assumes that people behave with extreme rationality, but actually they do not. Furthermore, people's deviations from rationality are often systematic. Behavioral Finance relaxes the traditional assumptions of financial economics by incorporating these observable, systematic, and very human departures from rationality into standard models of financial markets. He focussed on two common mistakes investors make: excessive trading and the tendency to disproportionately hold on to losing investments while selling winners. He argued that these systematic biases have their origins in human psychology. The tendency for human beings to be overconfident causes the first bias in investors, and the human desire to avoid regret prompts the second.'

4.2.2 Discussions About Behavioral Finance

Behavioural Finance is defined by Shleifer (1999) as, "a rapidly growing area that deals with the influence of psychology on the behavior of financial practitioners". Within Behavioural Finance, it is assumed that information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes. Behavioural Finance mainly focuses on how investors interpret and act on micro and macro information to make investment decisions. The globalization of financial markets has been increasing the number of retail investors over the past two decades by providing a wide variety of market and investment options.

4.2.3 Importance of Behavioral Finance

It is not possible for the investors to make a successful investment decision at all times. Their attitude is influenced by a variety of factors such as dividend, get rich quickly strategy, stories of successful investors, online trading, investor awareness programme and so on. A better understanding of behavioral process and outcomes are important for investors as well as financial planners because an understanding of how investors generally respond to market movements would help them in devising appropriate asset allocation strategies for clients.

4.2.4 Components of Behavioral Finance

According to conventional financial theory, the world and its participants are, for the most part, rational "wealth maximizers". However, there are many instances where emotion and psychology influence our decisions, causing us to behave in unpredictable or irrational ways. According to the traditional market theories, it is not only the markets that do not behave neatly but also the individual decision makers who do not behave in accordance with the tenets of expected utility theory. Allais (1959), who undertook the earliest works on Behavioural Finance, pointed out that neither the markets nor the individual decisional makers behave neatly. Kahneman and Taversky (1979), Machina (1982) and others have looked at how people make choices under uncertainty. They studied human behavior traits those violate the axioms of the expected utility maximizing model of financial economics.

4.2.4.1 Anchoring

Similar to how a house should be built upon a good, solid foundation, our ideas and opinions should also be based on relevant and correct facts in order to be considered valid. However, this is not always so. The concept of anchoring draws on the tendency to attach or "anchor" our thoughts to a reference point - even though it may have no logical relevance to the decision at hand. Although it may seem an unlikely phenomenon, anchoring is fairly prevalent in situations where people are dealing with concepts that are new and novel. When a certain purchased stock price falls because of disappointing news, many investors are averse to selling it at a loss. Here the Reference Point (anchor) is the original cost of purchase. Investors have a tendency to hold on to their losses. But some

investors wait in anticipation that the stock price would return to their purchase price before they decide to sell it without rationally evaluating the situation. In other words investors generally ‘hate to lose’.

Academic Evidence

Academic studies have shown the anchoring effect to be so strong that it still occurs in situations where the anchor is absolutely random.
In a 1974 paper entitled "Judgment under Uncertainty: Heuristics and Biases", Kahneman and Tversky conducted a study in which a wheel containing the numbers 1 though 100 was spun. Then, subjects were asked whether the percentage of U.N. membership accounted for by African countries was higher or lower than the number on the wheel. Afterward, the subjects were asked to give an actual estimate. Tversky and Kahneman found that the seemingly random anchoring value of the number on which the wheel landed had a pronounced effect on the answer that the subjects gave. For example, when the wheel landed on 10, the average estimate given by the subjects was 25%, whereas when the wheel landed on 60, the average estimate was 45%. As you can see, the random number had an anchoring effect on the subjects' responses, pulling their estimates closer to the number they were just shown - even though the number had absolutely no correlation at all to the question.

Investment Anchoring

Anchoring can also be a source of frustration in the financial world, as investors base their decisions on irrelevant figures and statistics. For example, some investors invest in the stocks of companies that have fallen considerably in a very short amount of time. In this case, the investor is anchoring on a recent "high" that the stock has achieved and consequently believes that the drop in price provides an opportunity to buy the stock at a discount. While, it is true that the fickleness of the overall market can cause some stocks to drop substantially in value, allowing investors to take advantage of this short- term volatility. However, stocks quite often also decline in value due to changes in their underlying fundamentals.

For instance, suppose that XYZ stock had very strong revenue in the last year, causing its share price to shoot up from Tk25 to Tk80. Unfortunately, one of the company's major customers, who contributed to 50% of XYZ's revenue, had decided not to renew its purchasing agreement with XYZ. This change of events causes a drop in XYZ's share price from Tk80 to Tk40. By anchoring to the previous high of Tk80 and the current price of Tk40, the investor erroneously believes that XYZ is undervalued. Keep in mind that XYZ is not being sold at a discount, instead the drop in share value is attributed to a change to XYZ's fundamentals (loss of revenue from a big customer). In this example, the investor has fallen prey to the dangers of anchoring.

Avoiding Anchoring

When it comes to avoiding anchoring, there's no substitute for rigorous critical thinking. Be especially careful about which figures you use to evaluate a stock's potential. Successful investors don't just base their decisions on one or two benchmarks; they evaluate each company from a variety of perspectives in order to derive the truest picture of the investment landscape. For novice investors especially, it's never a bad idea to seek out other perspectives. Listening to a few "devil's advocates" could identify incorrect benchmarks that are causing your strategy to fail.

4.2.4.2 Mental Accounting

It refers to the tendency for people to separate their money into separate accounts based on a variety of subjective criteria, like the source of the money and intent for each account. According to the theory, individuals assign different functions to each asset group, which has an often irrational and detrimental effect on their consumption decisions and other behaviors.

Although many people use mental accounting, they may not realize how illogical this line of thinking really is. For example, people often have a special "money jar" or fund set aside for a vacation or a new home, while still carrying substantial credit card debt. In this example, money in the special fund is being treated

differently from the money that the same person is using to pay down his or her debt, despite the fact that diverting funds from debt repayment increases interest payments and reduces the person's net worth. Simply put, it's illogical (and detrimental) to have savings in a jar earning little to no interest while carrying credit-card debt accruing at 20% annually. In this case, rather than saving for a holiday, the most logical course of action would be to use the funds in the jar (and any other available monies) to pay off the expensive debt. This seems simple enough, but why don't people behave this way? The answer lays with the personal value that people place on particular assets. For instance, people may feel that money saved for a new house or their children's college fund is too "important" to relinquish. As a result, this "important" account may not be touched at all, even if doing so would provide added financial benefit.

The Different Accounts Dilemma

To illustrate the importance of different accounts as it relates to mental accounting, consider this real-life example: You have recently subjected yourself to a weekly lunch budget and are going to purchase a Tk50 sandwich for lunch. As you are waiting in line, one of the following things occurs:

1) You find that you have a hole in your pocket and have lost Tk50; or
2) You buy the sandwich, but as you plan to take a bite, you stumble and your delicious sandwich ends up on the floor.

In either case (assuming you still have enough money), would you buy another sandwich? Logically speaking, your answer in both scenarios should be the same; the dilemma is whether you should spend Tk50 for a sandwich. However, because of the mental accounting bias, this isn't so. Because of the mental accounting bias, most people in the first scenario wouldn't consider the lost money to be part of their lunch budget because the money had not yet been spent or allocated to that account. Consequently, they'd be more likely to buy another sandwich, whereas in the second scenario, the money had already been spent.

Different Source, Different Purpose

Another aspect of mental accounting is that people also treat money differently depending on its source. For example, people tend to spend a lot more "found" money, such as tax returns and work bonuses and gifts, compared to a similar amount of money that is normally expected, such as from their pay cheques. This represents another instance of how mental accounting can cause illogical use of money.

Logically speaking, money should be interchangeable, regardless of its origin. Treating money differently because it comes from a different source violates that logical premise. Where the money came from should not be a factor in how much of it you spend - regardless of the money's source, spending it will represent a drop in your overall wealth.

Mental Accounting In Investing

The mental accounting bias also enters into investing. For example, some investors divide their investments between a safe investment portfolio and a speculative portfolio in order to prevent the negative returns that speculative investments may have from affecting the entire portfolio. The problem with such a practice is that despite all the work and money that the investor spends to separate the portfolio, his net wealth will be no different than if he had held one larger portfolio.

Avoiding Mental Accounting

The key point to consider for mental accounting is that money is fungible; regardless of its origins or intended use, all money is the same. You can cut down on frivolous spending of "found" money, by realizing that "found" money is no different than money that you earned by working.

As an extension of money being fungible, realize that saving money in a low- or no-interest account is fruitless if you still have outstanding debt. In most cases, the interest on your debt will erode any interest that you can earn in most savings

accounts. While having savings is important, sometimes it makes more sense to forgo your savings in order to pay off debt.

4.2.4.3 Confirmation

It's often said that "seeing is believing". While this is often the case, in certain situations what you perceive is not necessarily a true representation of reality. This is not to say that there is something wrong with your senses, but rather that our minds have a tendency to introduce biases in processing certain kinds of information and events. Investors must be aware how confirmation and hindsight biases affect their perceptions and subsequent decisions.

Confirmation Bias in Investment

It can be difficult to encounter something or someone without having a preconceived opinion. This first impression can be hard to shake because people also tend to selectively filter and pay more attention to information that supports their opinions, while ignoring or rationalizing the rest. This type of selective thinking is often referred to as the confirmation bias. In investing, the confirmation bias suggests that an investor would be more likely to look for information that supports his or her original idea about an investment rather than seek out information that contradicts it. As a result, this bias can often result in faulty decision making because one-sided information tends to skew an investor's frame of reference, leaving them with an incomplete picture of the situation. Consider, for example, an investor that hears about a hot stock from an unverified source and is intrigued by the potential returns. That investor might choose to research the stock in order to "prove" its touted potential is real. What ends up happening is that the investor finds all sorts of green flags about the investment (such as growing cash flow or a low debt/equity ratio), while glossing over financially disastrous red flags, such as loss of critical customers or dwindling markets.

Avoiding Confirmation Bias

Confirmation bias represents a tendency for us to focus on information that confirms some pre-existing thought. Part of the problem with confirmation bias is

that being aware of it isn't good enough to prevent one from doing it. One solution to overcoming this bias would be finding someone to act as a "dissenting voice of reason". That way one will be confronted with a contrary viewpoint to examine.

4.2.4.4 Gambler's Fallacy

When it comes to probability, a lack of understanding can lead to incorrect assumptions and predictions about the onset of events. One of these incorrect assumptions is called the gambler's fallacy. In the gambler's fallacy, an individual erroneously believes that the onset of a certain random event is less likely to happen following an event or a series of events. This line of thinking is incorrect because past events do not change the probability that certain events will occur in the future.

For example, consider a series of 20 coin flips that have all landed with the "heads" side up. Under the gambler's fallacy, a person might predict that the next coin flip is more likely to land with the "tails" side up. This line of thinking represents an inaccurate understanding of probability because the likelihood of a fair coin turning up heads is always 50%. Each coin flip is an independent event, which means that any and all previous flips have no bearing on future flips. Another common example of the gambler's fallacy can be found with people's relationship with slot machines. It is well heard about people who situate themselves at a single machine for hours at a time. Most of these people believe that every losing pull will bring them that much closer to the jackpot. What these gamblers don't realize is that due to the way the machines are programmed, the odds of winning a jackpot from a slot machine are equal with every pull (just like flipping a coin), so it doesn't matter if you play with a machine that just hit the jackpot or one that hasn't recently paid out.

Gambler's Fallacy In Investing

It's not hard to imagine that under certain circumstances, investors or traders can easily fall prey to the gambler's fallacy. For example, some investors believe that they should liquidate a position after it has gone up in a series of subsequent trading sessions because they don't believe that the position is likely to continue going up. Conversely, other investors might hold on to a stock that has fallen in

multiple sessions because they view further declines as "improbable". Just because a stock has gone up on six consecutive trading sessions does not mean that it is less likely to go up on during the next session.

Avoiding Gambler's Fallacy

It's important to understand that in the case of independent events, the odds of any specific outcome happening on the next chance remains the same regardless of what preceded it. With the amount of noise inherent in the stock market, the same logic applies: Buying a stock because one believes that the prolonged trend is likely to reverse at any second is irrational.

4.2.4.5 Herd Behavior

One of the most infamous financial events in recent memory would be the bursting of the internet bubble. However, this wasn't the first time that events like this have happened in the markets. How could something so catastrophic be allowed to happen over and over again? The answer to this question can be found in what some people believe to be a hardwired human attribute: herd behavior, which is the tendency for individuals to mimic the actions (rational or irrational) of a larger group. Individually, however, most people would not necessarily make the same choice.

There are a couple of reasons why herd behavior happens.

1) The first is the social pressure of conformity. It is probably well known from the experience that this can be a powerful force. This is because most people are very sociable and have a natural desire to be accepted by a group, rather than be branded as an outcast. Therefore, following the group is an ideal way of becoming a member.

2) The second reason is the common rationale that it's unlikely that such a large group could be wrong. After all, even if one is convinced that a particular idea or course or action is irrational or incorrect, individual

might still follow the herd, believing they know something that individual don't. This is especially prevalent in situations in which an individual has very little experience.

The Dotcom Herd

Herd behavior was exhibited in the late 1990s as venture capitalists and private investors were frantically investing huge amounts of money into internet-related companies, even though most of these dotcoms did not (at the time) have financially sound business models. The driving force that seemed to compel these investors to sink their money into such an uncertain venture was the reassurance they got from seeing so many others do the same thing. A strong herd mentality can even affect financial professionals. The ultimate goal of a money manager is to follow an investment strategy to maximize a client's invested wealth. The problem lies in the amount of scrutiny that money managers receive from their clients whenever a new investment fad pops up. For example, a wealthy client may have heard about an investment gimmick that's gaining notoriety and inquires about whether the money manager employs a similar "strategy". In many cases, it's tempting for a money manager to follow the herd of investment professionals. After all, if the aforementioned gimmick pans out, his clients will be happy. If it doesn't, that money manager can justify his poor decision by pointing out just how many others were led astray.

The Costs of Being Led Astray

Herd behavior, as the dotcom bubble illustrates, is usually not a very profitable investment strategy. Investors those employ a herd-mentality investment strategy constantly buy and sell their investment assets in pursuit of the newest and hottest investment trends. For example, if a herd investor hears that internet stocks are the best investments right now, he will free up his investment capital and then dump it on internet stocks. If biotech stocks are all the rage six months later, he or she will probably move money again, perhaps before s/he has even experienced significant appreciation in internet investments. Keep in mind that all this frequent buying and selling incurs a substantial amount of transaction costs, which can eat away at available profits. Furthermore, it's extremely difficult to

time trades correctly to ensure that one is entering position right when the trend is starting. By the time a herd investor knows about the newest trend, most other investors have already taken advantage of this news, and the strategy's wealth-maximizing potential has probably already peaked. This means that many herd-following investors will probably be entering into the game too late and are likely to lose money as those at the front of the pack move on to other strategies.

Avoiding the Herd Mentality

While it is tempting to follow the newest investment trends, an investor is generally better off steering clear of the herd. Just because everyone is jumping on a certain investment "bandwagon" doesn't necessarily mean the strategy is correct. Therefore, the soundest advice is to always to do homework before following any trend. It is important to remember that particular investments favoured by the herd can easily become overvalued because the investment's high values are usually based on optimism and not on the underlying fundamentals

4.2.4.6 Overconfidence

In a 2006 study entitled "Behaving Badly", researcher James Montier found that 74% of the 300 professional fund managers surveyed believed that they had delivered above-average job performance. Of the remaining 26% surveyed, the majority viewed themselves as average. Incredibly, almost 100% of the survey group believed that their job performance was average or better. Clearly, only 50% of the sample can be above average, suggesting the irrationally high level of overconfidence these fund managers exhibited.

As one can imagine, overconfidence (i.e., overestimating or exaggerating one's ability to successfully perform a particular task) is not a trait that applies only to fund managers. One can consider the number of times that s/he participated in a competition or contest with the attitude that s/he has what it takes to win - regardless of the number of competitors or the fact that there can only be one winner.

All should keep in mind that there's a fine line between confidence and overconfidence. Confidence implies realistically trusting in one's abilities, while overconfidence usually implies an overly optimistic assessment of one's knowledge or control over a situation.

Overconfident Investing

In terms of investing, overconfidence can be detrimental to investors' stock-picking ability in the long run. In a 1998 study entitled "Volume, Volatility, Price, and Profit When All Traders Are above Average", researcher Terrence Odean found that overconfident investors generally conduct more trades than their less-confident counterparts. Odean found that overconfident investors/traders tend to believe they are better than others at choosing the best stocks and best times to enter/exit a position. Unfortunately, Odean also found that traders that conducted the most trades tended, on average, to receive significantly lower yields than the market.

Avoiding Overconfidence

So it is better to keep in mind that professional fund managers, who have access to the best investment/industry reports and computational models in the business, can still struggle at achieving market-beating returns. The best fund managers know that each investment day presents a new set of challenges and that investment techniques constantly need refining. Just about every overconfident investor is only a trade away from a very humbling wake-up call.

4.2.4.7 Overreaction

One consequence of having emotion in the stock market is the overreaction toward new information. According to market efficiency, new information should more or less be reflected instantly in a security's price. For example, good news should raise business' share price accordingly, and that gain in share price should not decline if no new information has been released since.

Reality, however, tends to contradict this theory. Oftentimes, participants in the stock market predictably overreact to new information, creating a larger-than-appropriate effect on a security's price. Furthermore, it also appears that this

price surge is not a permanent trend - although the price change is usually sudden and sizable, the surge erodes over time.

Winners and Losers

In 1985, Behavioral Finance academics Werner De Bondt and Richard Thaler released a study in the *Journal of Finance* called "Does the Market Overreact?" In this study, the two examined returns on the New York Stock Exchange for a three-year period. From these stocks, they separated the best 35 performing stocks into a "Winners Portfolio" and the worst 35 performing stocks were then added to a "Losers Portfolio". De Bondt and Thaler then tracked each portfolio's performance against a representative market index for three years. Surprisingly, it was found that the “Losers’ Portfolio” consistently beat the market index, while the “Winners’ Portfolio” consistently underperformed. In total, the cumulative difference between the two portfolios was almost 25% during the three-year time span. In other words, it appears that the original "winners" would became "losers", and vice versa.

So what happened? In both the “winners” and “losers” portfolios, investors essentially overreacted. In the case of loser stocks, investors overreacted to bad news, driving the stocks' share prices down disproportionately. After some time, investors realized that their pessimism was not entirely justified, and these losers began rebounding as investors came to the conclusion that the stock was underpriced. The exact opposite is true with the winners portfolio: investors eventually realized that their exuberance wasn't totally justified. According to the availability bias, people tend to heavily weight their decisions toward more recent information, making any new opinion biased toward that latest news.

This happens in real life all the time. For example, suppose one sees a car accident along a stretch of road that he or she regularly drives to work. Chances are, individual will begin driving extra cautiously for the next week or so. Although the road might be no more dangerous than it has ever been, seeing the accident causes individual to overreact, but he or she will be back to old driving habits by

the following week. Perhaps the most important lesson to be learned here is to retain a sense of perspective. While it's easy to get caught up in the latest news, short-term approaches don't usually yield the best investment results. If one does a thorough job of researching his or her investments, s/he will better understand the true significance of recent news and will be able to act accordingly. Remembering to focus on the long-term picture will advantage the investor.

4.2.5 Market Anomaly

The presence of regularly occurring anomalies in conventional economic theory was a big contributor to the formation of Behavioral Finance. These anomalies, and their continued existence, directly violate modern financial and economic theories, which assume rational and logical behavior. The following is a quick summary of some of the anomalies found in the financial literature.

4.2.5.1 January Effect

The January effect is named after the phenomenon in which the average monthly return for small firms is consistently higher in January than any other month of the year. This is at odds with the efficient market hypothesis, which predicts that stocks should move at a "random walk".

However, a 1976 study by Michael S. Rozeff and William R. Kinney, called "Capital Market Seasonality: The Case of Stock Returns", found that from 1904-74 the average amount of January returns for small firms was around 3.5%, whereas returns for all other months was closer to 0.5%. This suggests that the monthly performance of small stocks follows a relatively consistent pattern, which is contrary to what is predicted by conventional financial theory. Therefore, some unconventional factors (other than the random-walk process) must be creating this regular pattern.

One explanation is that the surge in January returns is a result of investors selling loser stocks in December to lock in tax losses, causing returns to bounce back up in January, when investors have less incentive to sell. While the year-end tax selloff may explain some of the January effect, it does not account for the fact that the phenomenon still exists in places where capital gains taxes do not occur.

This anomaly sets the stage for the line of thinking that conventional theories do not and cannot account for everything that happens in the real world.

4.2.5.2 The Winner's Curse

One assumption found in finance and economics is that investors and traders are rational enough to be aware of the true value of some asset and will bid or pay accordingly. However, anomalies such as the winner's curse - a tendency for the winning bid in an auction setting to exceed the intrinsic value of the item purchased - suggest that this is not the case. Rational-based theories assume that all participants involved in the bidding process will have access to all relevant information and will all come to the same valuation. Any differences in the pricing would suggest that some other factor not directly tied to the asset is affecting the bidding.

According to Robert Thaler's 1988 article on winner's curse, there are two primary factors that undermine the rational bidding process: the number of bidders and the aggressiveness of bidding. For example, the more bidders involved in the process means that one has to bid more aggressively in order to dissuade others from bidding. Unfortunately, increasing one’s aggressiveness will also increase the likelihood in that his or her winning bid will exceed the value of the asset.
Prospective homebuyers bidding for a house can be considered for example. It is possible that all the parties involved are rational and know the home's true value from studying recent sales of comparative homes in the area. However, variables irrelevant to the asset (aggressive bidding and the amount of bidders) can cause valuation error, oftentimes driving up the sale price more than 25% above the home's true value. In this example, the curse aspect is twofold: not only has the winning bidder overpaid for the home, but now that buyer might have a difficult time securing financing.

4.2.5.3 Equity Premium Puzzle

An anomaly that has left academics in finance and economics scratching their heads is the equity premium puzzle. According to the Capital Asset Pricing Model

(CAPM), investors that hold riskier financial assets should be compensated with higher rates of returns.

Studies have shown that over a 70-year period, stocks yield average returns that exceed government bond returns by 6-7%. Stock real returns are 10%, whereas bond real returns are 3%. However, academics believe that an equity premium of 6% is extremely large and would imply that stocks are considerably risky to hold over bonds. Conventional economic models have determined that this premium should be much lower. This lack of convergence between theoretical models and empirical results represents a stumbling block for academics to explain why the equity premium is so large.

Behavioral Finance's answer to the equity premium puzzle revolves around the tendency for people to have "myopic loss aversion", a situation in which investors - overly preoccupied by the negative effects of losses in comparison to an equivalent amount of gains – one can take a very short-term view on an investment. What happens is that investors are paying too much attention to the short-term volatility of their stock portfolios. While it is not uncommon for an average stock to fluctuate a few percentage points in a very short period of time, a myopic (i.e., short sighted) investor may not react too favourably to the downside changes. Therefore, it is believed that equities must yield a high-enough premium to compensate for the investor's considerable aversion to loss. Thus, the premium is seen as an incentive for market participants to invest in stocks instead of marginally safer government bonds.

4.2.6 Evidence for Irrational Behavior

Kahneman and Tversky conducted a series of studies in which subjects answered questions that involved making judgments between two monetary decisions that involved prospective losses and gains. For example, the following questions were used in their study:

1. You have $1,000 and you must pick one of the following choices:

Choice A: You have a 50% chance of gaining $1,000, and a 50% chance of gaining $0.
Choice B: You have a 100% chance of gaining $500.

2. You have $2,000 and you must pick one of the following choices:
   Choice A: You have a 50% chance of losing $1,000, and 50% of losing $0.
   Choice B: You have a 100% chance of losing $500.

If the subjects had answered logically, they would pick either "A" or "B" in both situations. (People choosing "B" would be more risk averse than those choosing "A"). However, the results of this study showed that an overwhelming majority of people chose "B" for question 1 and "A" for question 2. The implication is that people are willing to settle for a reasonable level of gains (even if they have a reasonable chance of earning more), but are willing to engage in risk-seeking behaviors where they can limit their losses. In other words, losses are weighted more heavily than an equivalent amount of gains.

Though people tend to join the share market knowing fully well that it is riskier than bond market, at least much more risky than government bonds or deposit investments, still many of them tend to avoid risk when it comes to decision.
It is this line of thinking that created the asymmetric value function:

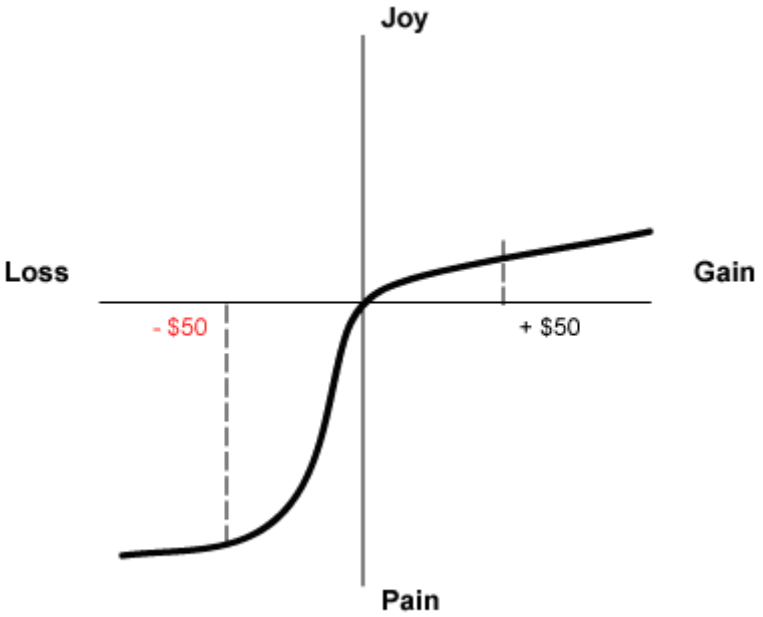


Figure 4.1: Loss-Pain VS Gain-Joy relationship.

This function is a representation of the difference in utility (amount of pain or joy) that is achieved as a result of a certain amount of gain or loss. It is key to note that not everyone would have a value function that looks exactly like this; this is the general trend. The most evident feature is how a loss creates a greater feeling of pain compared to the joy created by an equivalent gain. For example, the absolute joy felt in finding $50 is a lot less than the absolute pain caused by losing $50.

Consequently, when multiple gain/loss events happen, each event is valued separately and then combined to create a cumulative feeling. For example, according to the value function, if you find $50, but then lose it soon after, this would cause an overall effect of -40 units of utility (finding the $50 causes +10 points of utility (joy), but losing the $50 causes -50 points of utility (pain). To most people, this makes sense: it is a fair bet that people would be kicking themselves over losing the $50 that they just found.

Financial Relevance

The prospect theory can be used to explain quite a few illogical financial behaviors. For example, there are people who do not wish to put their money in the bank to earn interest or who refuse to work overtime because they don't want to pay more taxes. Although these people would benefit financially from the additional after-tax income, prospect theory suggests that the benefit (or utility gained) from the extra money is not enough to overcome the feelings of loss incurred by paying taxes.

Prospect theory also explains the occurrence of the disposition effect, which is the tendency for investors to hold on to losing stocks for too long and sell winning stocks too soon. The most logical course of action would be to hold on to winning stocks in order to further gains and to sell losing stocks in order to prevent escalating losses.

When it comes to selling winning stocks prematurely, consider Kahneman and Tversky's study in which people were willing to settle for a lower guaranteed gain of $500 compared to choosing a riskier option that either yields a gain of $1,000

or $0. This explains why investors realize the gains of winning stocks too soon: in each situation, both the subjects in the study and investors seek to cash in on the amount of gains that have already been guaranteed. This represents typical risk-averse behavior.

The flip side of the coin is investors hold on to losing stocks for too long. Like the study's subjects, investors are willing to assume a higher level of risk in order to avoid the negative utility of a prospective loss. Unfortunately, many of the losing stocks never recover, and the losses incurred continued to mount, with often disastrous results.

Avoiding the Effect

It is possible to minimize the disposition effect by using a concept called hedonic framing to change one's mental approach. For example, in situations where one has a choice of thinking of something as one large gain or as a number of smaller gains (such as finding $100 versus finding a $50 bill from two places), thinking of the latter can maximize the amount of positive utility.

For situations where one has a choice of thinking of something as one large loss or as a number of smaller losses (losing $100 versus losing $50 twice), framing the situation as one large loss would create less negative utility because the marginal difference between the amount of pain from combining the losses would be less than the total amount of pain from many smaller losses. For situations where one has a choice of thinking as something as one large gain with a smaller loss or a situation where s/he net the two to create a smaller gain ($100 and -$55, versus +$45), s/he would receive more positive utility from the sole smaller gain.

Finally, for situations where one has a choice of thinking as something as one large loss with a smaller gain or a situation where s/he has a smaller loss (-$100 and +$55, versus -$45), it would be best to try to frame the situation as separate gains and losses.

Trying these methods of framing one's thoughts should make his or her experience more positive and if used properly, it can help minimize the dispositional effect.

4.2.7 How are Normal Investors Differ from Rational Investors

Rational investors always prefer more money to less money and are never confused by what form the money takes. Rational investors, for example, are quick to realize losses because they are not confused by whether the losses are "paper losses" or "realized losses"; they know that realized losses bring extra money in tax savings and reinvestment. In contrast, normal investors are often confused by form because they are subject to cognitive biases. Normal investors, for example, often think they lose money only when they realize paper losses, not when they sustain paper losses. Normal investors are also subject to emotions such as hope, fear, and regret. They are reluctant to realize losses because realizing losses brings the pain of regret. ("I'll kick myself if I sell for Tk1 those shares I bought for Tk100. Maybe I should wait to see if the stock recovers.") Normal investors are the researchers and people around them. Normal investors are not stupid, but neither are they "rational" in the way a computer would be. Normal investors need help in overcoming the negative effects of their cognitive biases and emotions.

4.2.8 Critics of Behavioral Finance

The most notable critic of Behavioral Finance is Eugene Fama, the founder of market efficiency theory. He suggests that even though there are some anomalies that cannot be explained by modern financial theory, market efficiency should not be totally abandoned in favour of Behavioral Finance.
In fact, he notes that many of the anomalies found in conventional theories could be considered shorter-term chance events that are eventually corrected over time. In his 1998 paper, entitled "Market Efficiency, Long-Term Returns and Behavioral Finance", Fama argues that many of the findings in Behavioral Finance appear to contradict each other, and that all in all, Behavioral Finance itself appears to be a collection of anomalies that can be explained by market efficiency.

Chapter Five

ORGANIZATIONAL PROFILE

CONTENTS

5.1 INTRODUCTION

In usual common sense (general peoples' thought not economists'), the MARKET is a place people usually go to buy things/goods/commodities/items. This is true or usual thought from the buyers/consumers point of view. But this is not the only view or the whole story of the scenario. There exist the sellers, who sell things at the MARKET. So from sellers' point of view it can be restated as the MARKET is the place where people go to sell things/goods/commodities/items. Now combination of both the views gives the idea of real MARKET. Here things/goods/commodities/items are bought and sold. Absence of any one will make it incomplete. It will be irrational. For example it will be something like all are sellers or all tries to sell but there is no one to buy, that is, there is no buyer. If there is no buyer then can any seller sell? On the other hand if there is no seller can anybody buy? Scenario of such nature is not normal. It might be thought that it cannot happen. But it can happen. Capital Market is the place where in the context of Bangladesh it happened number of times earlier, and may continue to happen in future for some time. The Capital Market resides in the periphery of Financial Market. The organization is discussed from a wide angle.

5.2 STRUCTURE OF FINANCIAL MARKET

MARKET has another wide known view. Often people come across FISH-MARKET, VEGETABLE-MARKET, BEEF-MARKET, CHEMICAL-MARKET, BANANA-MARKET etc, etc. There can be many more items. The more the economy is advancing the list is growing more and more details; Symptom of getting better, symptom of freedom in market. Anyway, like wise people hear COMMON STOCK MARKET. Same is the approach and analogy to make the point clear that, in FISH-MARKET fish is traded (bought/sold), likewise in COMMON STOCK MARKET common stocks are traded (brought/sold). To complete the trade it is important to make sure one understands that one has to sell while another has to buy or one has to buy while another has to sell, whatever people tell. So a market is one of many varieties of systems, institutions, procedures, social relations, products and infrastructures whereby parties engage in exchange commodities. Now person expecting solid GOLD or

crude OIL will be traded/exchanged in the CAPITAL MARKET obviously needs sound justification of understanding of chronological development of argument displayed in the paragraph. But it is worthwhile to know, though physical such items are not traded in the CAPITAL MARKET or in the COMMON STOCK MARKET, both GOLD and OIL is used to rate the standard of present financial condition prevailing in geographic boundaries. Here is the structure shown in the figure bellow graphically as they are related in the economy:

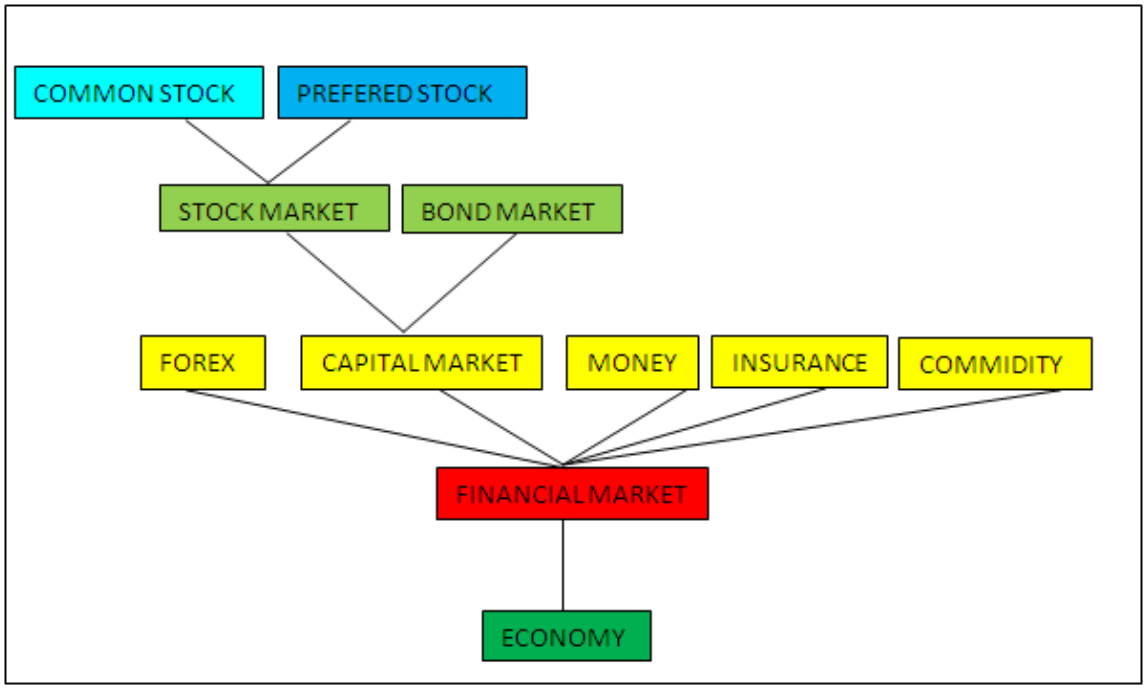


Figure 5.1: Different classes of functioning parts of economy.

The terminologies used in the figure above have their own meaning. All differs from each other in terms of scope, sense, use, time and utilities. The more details one will know about each class will have better understanding and will be able to use each class as vehicle to meet one's customized, specialized and purposive objective. For example someone might be comfortable with the rate of return[1] that is promised by the bonds market for certain duration with certain amount of risk

[1] Rate of Return- This is a terminology commonly used in the investment world, which is measured in terms of percentage (%). If 100 taka is invested with an annual interest of 12 taka, then the rate of return is called 12%. This term is also called annual rate of return. In the term of bank deposits, it is called annual rate of interest or by interest rate simply.

exposure. Again someone might want a better rate of return, so common stock market could be explored for the expected time duration taking due consideration to the risks and returns, might be a better option. There exists a relation between risk and return. The relation goes like, the more risk is associated with certain activity bears the possibility of more return. Again the lesser risk is associated, promises lesser return. It is seen through studies that investors suffer from certain irrational behaviour, hence the risk and return relationship also goes beyond rationality.

5.3 STOCK EXCHANGES

What is the Role of the Stock Exchange?[2]

The stock exchange provides listed companies with a channel to seek capital fund from the public and at the same time it provides the investors a place to buy and sell shares of the listed companies. The exchange also monitors the market to ensure that it is working efficiently, fairly and transparently.

How many Stock Exchanges in Bangladesh?

There are two stock exchanges in Bangladesh:

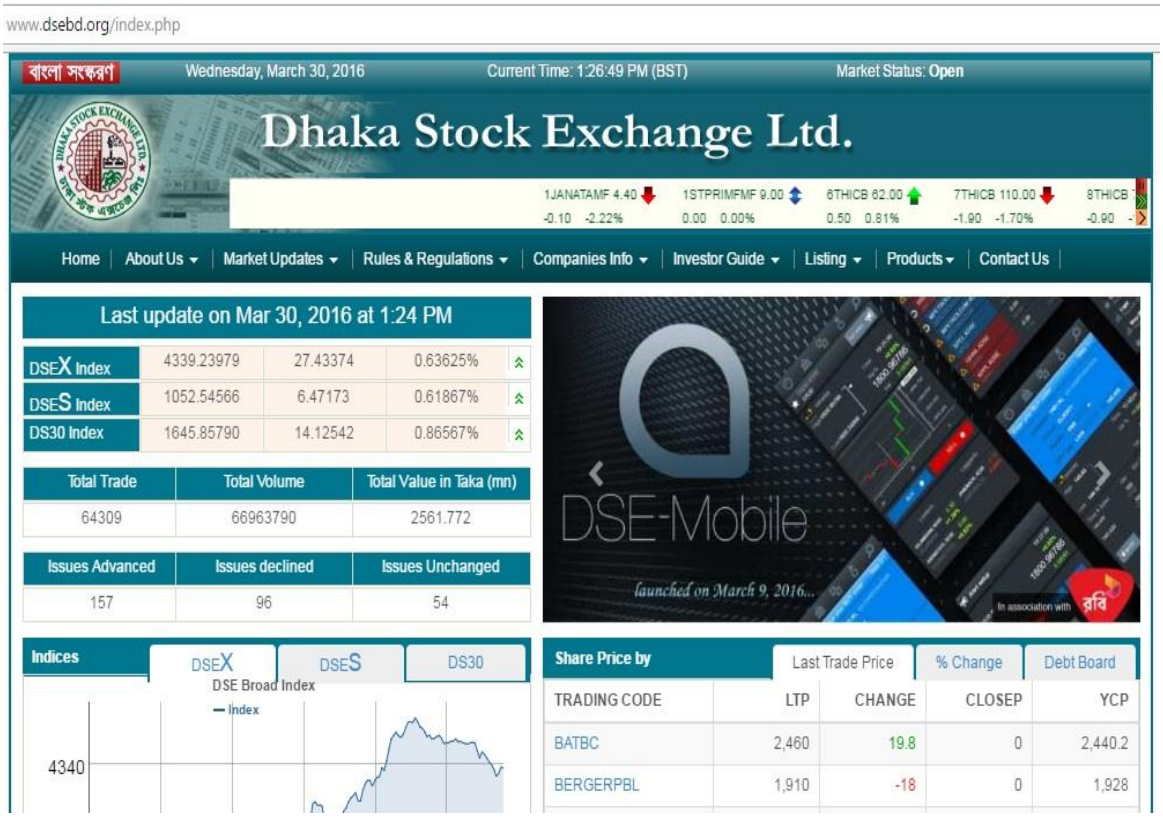
1) Dhaka Stock Exchange Ltd. - Established on 1954
2) Chittagong Stock Exchange Ltd. - Established on 1995

Of these two exchanges, Dhaka Stock Exchange is larger stock exchange in the country.

As all are briefly concerned about the common stock market, so for now, here is the home page of the official website of the Dhaka Stock Exchange and Chittagong Stock Exchange where the common stocks are traded. To reach those pages one need to type http://www.dsebd.org/ and http://www.cse.com.bd/ respectively in the web browser's address bar. The web browser will then open up the home page of respective stock exchanges. Earlier days when the web sites of the exchanges were not developed, the shares were of paper type. Somebody used to declare by the name of the share and its bye-sale price for the

[2] http://www.dsebd.org/dse_faq.php#role

customers to make the transaction deal. But now, the business is much more modern and transparent. More organized and technically administered. The Central Depository Bangladesh Limited (CDBL web site is http://www.cdbl.com.bd/) keeps the record of all the transaction including the volume, time, size and many more details. There is rare scope of fraud or manipulation in the transaction in particular. Same is the system followed in the developed countries of the world. For example in the New York Stock Exchange (http://www.nyse.com/) and in the Tokyo Stock Exchange (http://www.tse.or.jp/english/index.html) also users can observe the real time statistics of trade, current price of each stock, volume traded and volume waiting for the trading. These sites are designed as such these can be reached from any corner of the planet. Same is the case with the sites of Bangladesh stock



exchanges. They also have the Central Depository to keep all the records.

Figure 5.2: Home page of Dhaka Stock Exchange.

From this web site investors can get information about the common stocks those are traded in the market. It provides information about the index and its relative movement, daily changes of stock prices, the sell-buy pressures of individual issues under study, list of all the stocks and bonds with daily price quotes, any relevant news of the market as a whole as well as for a particular issue's, information of Initial Public Offering (IPO) with details of date time etc. This site can be used to browse to individual company's home page and get the financial statements, annual reports of the companies and so on.

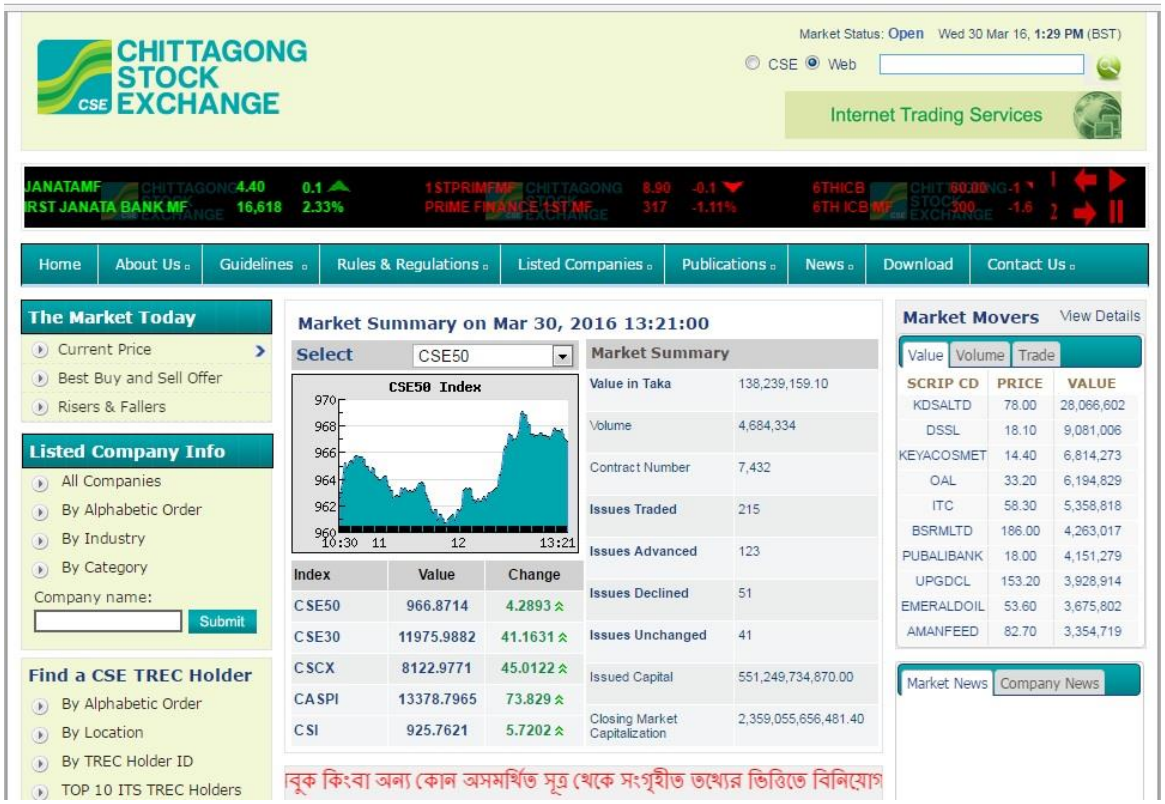


Figure 5.3: Home page of Chittagong Stock Exchange.

Though the existing web home page of Chittagong stock exchange is different from that of Dhaka Stock exchange, these facilities are of the same kind. Information provided by the information technology era is huge.

Bangladesh has these two stock exchanges. Dhaka Stock Exchange is larger as mentioned earlier in terms of listed issues/companies, transaction size and volume, daily turnover, clientele etc are some of the aspects mentionable for

clarification. It was set up on 28th April 1954 and started formal trading from early 1956. In the year 1995 the second bourse the Chittagong Stock Exchange was set up.

The CEO of the exchange is a director of the board. However investors/traders heavily rely on the information displayed in the abovementioned websites and act basing on the information. Individual investors also gather in the brokerage houses and follow their display boards connected in the network of trading centers for operations. To see the details of members of Dhaka Stock Exchange interested individual can browse website http://www.dsebd.org/search_all.php .

Listed issues/companies of Stock Exchanges are of following categories given bellow[3]:

Table 5.1: Listed Issues with criterion, categories and settlement days.

Categories	DSE	CSE	Criterion	Settlement
A	244 11 from other categories	130	Regular AGM, Dividend >=10%	T+1 Pay In Day T+3 Pay Out Day
B	11	13	Regular AGM	T+1 Pay In Day T+3 Pay Out Day
G		1	Green Field	T+1 Pay In Day T+3 Pay Out Day
N	5	14	New less Green Field	T+1 Pay In Day T+3 Pay Out Day
Z	18	72	No Regular AGM	T+3 Pay In Day T+7 Pay Out Day
Debenture	8	2		
Treasury Bonds	212	12		
Corporate Bonds	3	3		
Total	490[4]	247		

[3] Amalendu Mukherjee & MD Ghulam Faruque, *Capital Market In Bangladesh Trends and Practices (Presentation,2008)*

[4] Annual Report of Dhaka Stock Exchange Limited-2010-2011

The numbers are changed in the latest figures as we can see in the following pages. The settlement days are similar with little or no changes as well as the categories.

Table 5.2: Yearly comparison of DSE Index, Market Capital.

Particulars	**2011**	**2012**	**2013**	**2014**	**2015**
Listed Secrities	490	515	529	546	559
DSE Broad Index (DSEX)					
Opening Index			4,055.91	4,266.55	4,864.96
Closing Index			4,266.55	4,864.96	4,629.64
% of change			**5.19**	**14.03**	**(4.84)**
Highst Index			4,439.60	5,334.04	4,969.73
Lowest Index			3,438.90	4,286.15	3,959.74
DSE 30 Index (DS30)					
Opening Index			1,460.30	1,466.25	1,803.06
Closing Index			1,466.25	1,803.06	1,750.59
% of change			**0.41**	**22.97**	**(2.91)**
Highst Index			1,654.22	2,002.09	1,904.76
Lowest Index			1,282.42	1,478.38	1,505.70
DSEX Shariah Index (DSES)					
Opening Index				941.28	1,150.22
Closing Index				1,150.22	1,107.12
% of change				**22.20**	**(3.75)**
Highst Index				1,248.78	1,207.92
Lowest Index				941.28	973.45
Market Capitalisation Tk. In mn					
Opening Market Cap.	3,508,005.80	2,616,730.54	2,403,555.62	2,647,790.83	3,259,246.76
Closing Market Cap.	2,616,730.54	2,403,555.62	2,647,790.83	3,259,246.76	3,159,757.75
Highest Market Cap	3,513,277.51	2,790,617.90	2,731,641.83	3,477,653.78	3,409,970.40
Lowest Market Cap	2,373,681.40	2,039,135.98	2,160,241.18	2,657,288.21	2,934,738.95
Turnover					
Total Turnover in Tk. mn	1,560,912.09	1,001,084.90	952,742.08	1,188,521.54	1,031,398.64
% of Change	(61.07)	(35.87)	(4.83)	24.75	(13.22)
Total Trading Days	235	238	238	238	244
Daily Average Turnover	6,642	4,206	4,003	4,994	4,227
Highest Turnover	19,579.28	12,884.27	12,946.16	12,885.54	10,023.39
Lowest Turnove	680.84	1,157.03	1,015.72	1,368.93	1,666.14
Volume					
Total Turnover in Volume (mn)	16,967	21,689	22,989	25,996	26,106

% of Change	(0.04)	27.83	5.99	13.08	0.42
Daily Average Turnover in Volume	72	91	97	109	107
Highst Turnover in Volume	242.86	301.38	240.93	275.12	265.05
Lowest Turnover in Volume	5.88	27.49	29.05	34.11	40.07
Market Cap. To GDP Ratio	**33.23**	**26.27**	**25.51**	**24.13**	**20.88**
Market P/E	**13.68**	**12.07**	**15.07**	**17.77**	**15.23**

Clearing & Related Issues

The Clearing and Settlement module provides the management of trade from the point of entry into the Settlement Pool trade database until it has been delivered, settled and removed from the Settlement Pool. It consists of three major business processes.

Settlement: the process of overseeing that delivery of all instruments to the buyer and payment of all moneys to the seller has occurred before removing the trade from the settlement pool.

Regulation 4 of the Settlement of Stock Exchange Transactions Regulation 1998 has been given effect time to time. A new directive was made by SEC dated on 18th March 2003 "Adjusted due position mechanism for settlement of scrip only as provided by regulation 4(1) of settlement of Stock Exchange Transaction Regulations, 1998 shall remain suspended from 19th March 2003 until further order".

Here is a complete picture of the settlement system for all of the 427 Instruments in Five (5) groups in the Four (4) markets.

A Group: Number of Instruments are 338 (150 + 8D + 22M + 158TB), Here D for Debentures, M for Mutual funds & TB for Treasury Bonds (Trading in Public, Block & Odd-lot Market with trade for trade settlement facility for scrip only through DSE Clearing House on T+1, T+3 basis). "A" and "DA" are marked in BASES columns for Non-Demat & Demat instrument respectively in our TESA Trading Software.

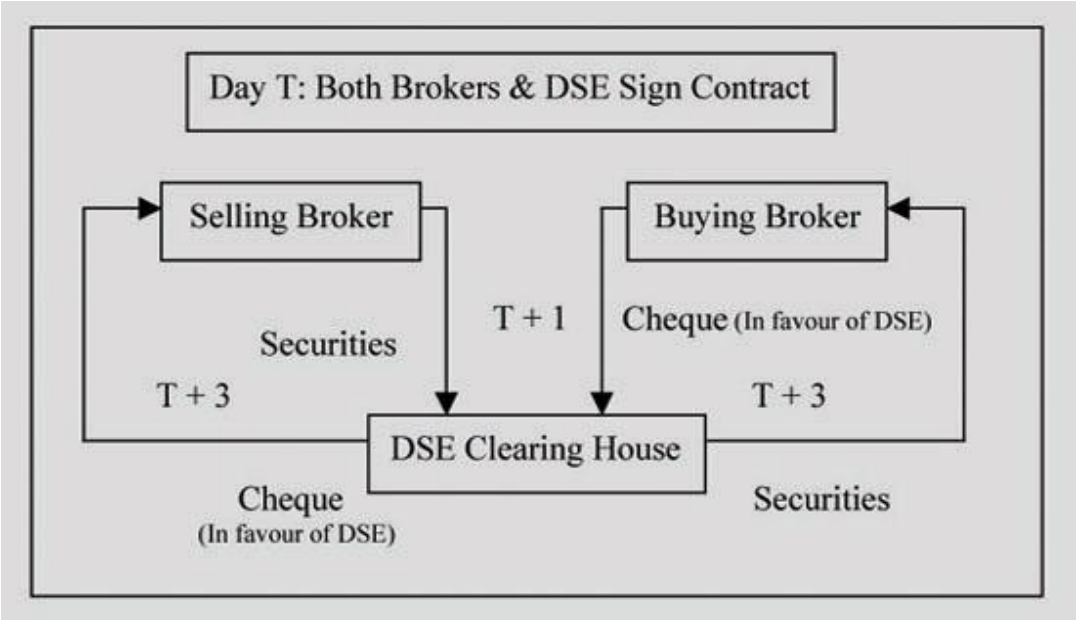


Figure 5.4: Valid cycle for A, B, G & N category instruments traded in Public, Block & Odd-lot market.

B Group: Number of Instruments are 44(trading in Public, Block & Odd-lot Market with trade for trade settlement facility through DSE Clearing House on T+1, T+3 basis). "B" and "DB" are marked in BASES columns for Non-Demat & Demat instrument respectively in our TESA Trading software.

G Group: Number of Instrument is 0 (trading in Public, Block & Odd-lot Market with trade for trade settlement facility through DSE Clearing House on T+1, T+3 basis). "G" and "DG" are marked in BASES columns for Non-Demat & Demat instrument respectively in our TESA Trading software.

N Group: Number of Instrument is 11 (trading in Public, Block & Odd-lot Market with trade for trade settlement facility through DSE Clearing House on T+1, T+3 basis). "N" and "DN" are marked in BASES columns for Non-Demat & Demat instrument respectively in our TESA Trading software.

Z Group: Number of Instruments are 34(trading in Public, Block & Odd-lot Market with trade for trade settlement facility through DSE Clearing House on T+1, T+9 basis). "Z" and "DZ" are marked in BASES columns for Non-Demat & Demat instrument respectively in our TESA Trading software.

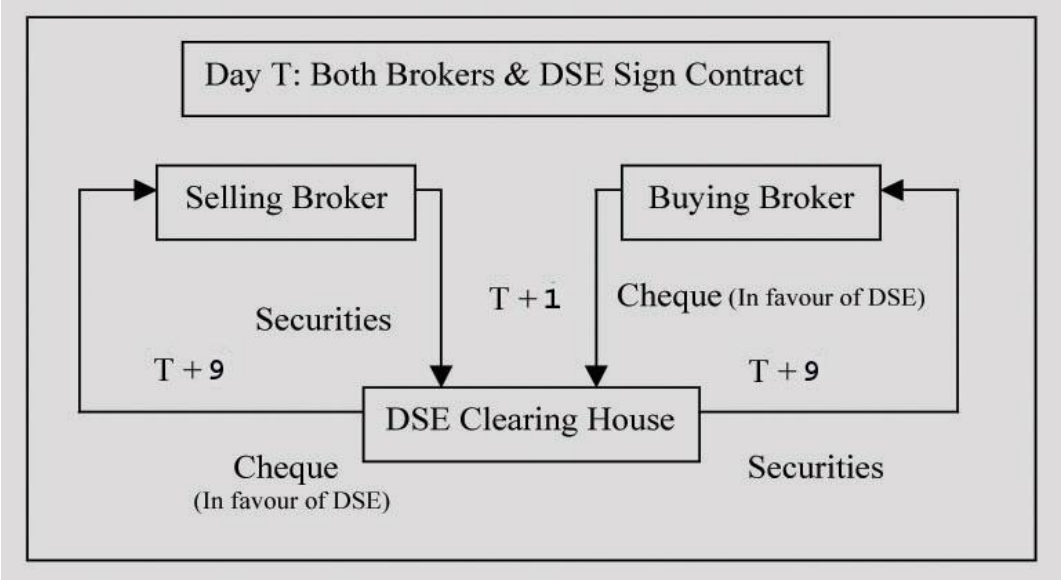


Figure 5.5: Valid cycle only for Z group instruments traded in Public, Block & Odd-lot market.

Instruments Of All Groups Traded In Spot Market:

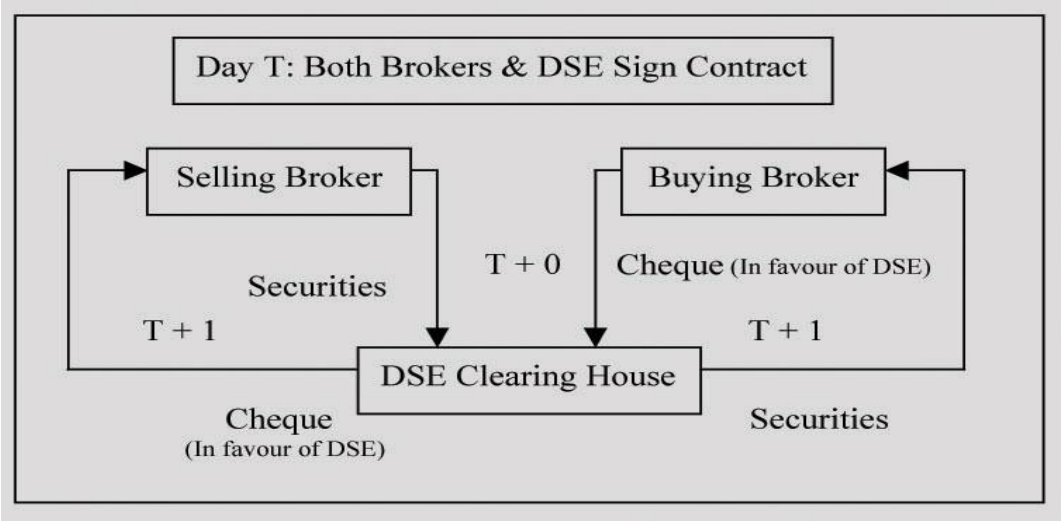


Figure 5.6: Valid cycle for A, B, G, N & Z category instruments traded in spot market.

Instruments Of Foreign Trades (DVP) Of All Groups:

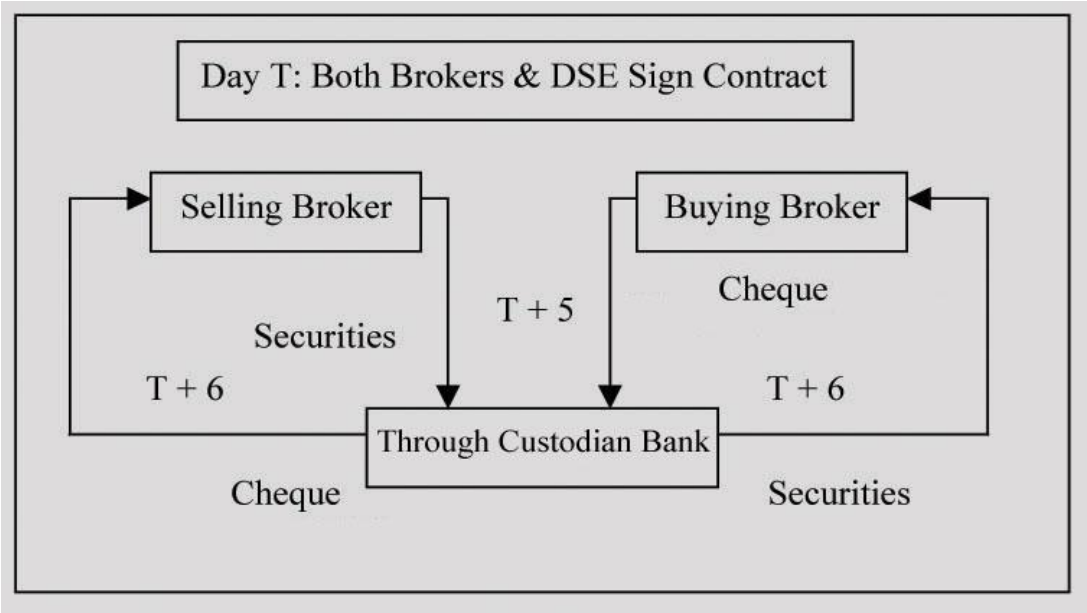


Figure 5.7: Valid cycle for A, B, G, N & Z category instruments of Foreign trade.

Remarks:

* If any instrument declared as Compulsory Spot then Trades of Block and Odd-lot market of that Instrument will be settled like Spot Market.
* Howla Charge, Laga Charge & Tax are always payable to DSE at Pay-In date for both Buyer and Seller traded in Public, Block & Odd-lot Market.
* Howla Charge, Laga Charge & Tax are always payable to DSE at T+1 day for both Buyer and Seller traded in Spot Market.
* Outside-Of-Netted settlement for "A" Group instrument has been withdrawn from 10th Dec 2006.
* DVP Trades are Off-Market Settlement (Broker to Broker).

Settlement for Different Categories Instruments

Table 5.3: Settlement for A group Instruments.

Market name	Trade for Trade System	Settlement & Period
Public	Trade for Trade *	T+1 & T+3

Odd + Block	Trade for Trade	T+1 & T+3
Spot	Trade for Trade	T+0 & T+1

Table 5.4: Settlement for B group Instruments.

Market name	Trade for Trade System	Settlement & Period
Public	Trade for Trade *	T+1 & T+3
Odd + Block	Trade for Trade	T+1 & T+3
Spot (Before Book- closer)	Trade for Trade	T+0 & T+1

Table 5.5: Settlement for G group Instruments.

Market name	Trade for Trade System	Settlement & Period
Public	Trade for Trade *	T+1 & T+3
Odd + Block	Trade for Trade	T+1 & T+3
Spot (Before Book-closer)	Trade for Trade	T+0 & T+1

Table 5.6: Settlement for N group Instruments.

Market name	Trade for Trade System	Settlement & Period
Public	Trade for Trade *	T+1 & T+3
Odd + Block	Trade for Trade	T+1 & T+3
Spot (Before Book-closer)	Trade for Trade	T+0 & T+1

* As netting system for shares has withdrawn, for A, B, G & N group instrument, member will have to deposit the full shares at the DSE on T+1 after selling the shares, In case of purchasing such shares, the buyer will have to deposit the Balanced (Netted) money traded in Public, Block & Odd-lot market at the DSE on T+1.

Table 5.7: Settlement for Z group Instruments.

Market name	Trade for Trade System	Settlement &Period
Public	Trade for Trade *	T+1 & T+9
Odd + Block	Trade for Trade	T+1 & T+9
Spot (Before Book-closer)	Trade for Trade	T+0 & T+1

** Under the Trade for trade settlement system, member will have to deposit the full money at the DSE on T+1 after purchasing the shares, In case of selling such shares, the seller will have to deposit the full shares at the DSE on T+9.

Demate Share:

All selling shares have to transfer (Pay in) to the clearing account of selling Brokers from concerned BO account within settlement period. Regarding the cash payment the procedure will remain unchanged as mentioned above.

5.4 CENTRAL DEPOSITORY BANGLADESH LIMITED

Central Depository Bangladesh Limited (CDBL) was incorporated on 20th August 2000 sponsored by the country's Nationalized Commercial Banks (NCBs), Investment Corporation of Bangladesh (ICB), Private Commercial Banks (PCBs), Foreign Banks, Merchant Banks, Publicly listed Companies, Insurance Companies and Dhaka & Chittagong Stock Exchanges with the collaboration of the Asian Development Bank (ADB). Legal basis for CDBL's operations is set out in the Depositories Act 1999, Depositories Regulations 2000, Depository (User) Regulations 2003, and the CDBL by-laws.

CDBL's core services cover the efficient delivery, settlement and transfer of securities through computerized book entry system i.e. recording and maintaining securities accounts and registering transfer of securities; changing the ownership without any physical movement or endorsement of certificates and execution of transfer instruments. The Central Depository System (CDS) operated by CDBL has proved to be a convenient and reliable means to settle securities transaction. The investor has been freed from the hassles of physical handling of certificates, errors in paper work and the risks associated with damaged, lost and forged certificates.

CDBL's operations are carried out in its Main Data Centre which is linked to a remote Disaster Recovery Centre operating as a backup with data update taking place simultaneously. Network connectivity to Depository Participants, Issuers, Banks, Stock Exchanges and Bangladesh Bank is through Front End interfaces accessed by WAN link and dial-up telephone lines.

Live operations of the CDS commenced with the inauguration of the Electronic Government Securities Registry (EGSR) by the Governor of Bangladesh Bank on 20 th October 2003. The EGSR also serves as a platform for secondary market sale/purchase as well as Repo transactions of government securities to commercial banks linked online to the CDS. Equity market securities dematerialization process i.e. eliminating physical certificate as record of security ownership by substituting it as an electronic book entry record in the CDS commenced on 24th January 2004 with the entry of Square Pharmaceuticals Limited into the CDS.

Since 14th February 2003 CDBL has been acting as National Numbering Agency for International Securities Identification Number (ISIN) as partner in Bangladesh of Association of National Numbering Agencies (ANNA) based in Germany. CDBL is a member of Asia Pacific CSD Group (ACG) and an associate member of South Asian Federation of Exchanges (SAFE).

Table 5.8 : Number of Investors BO Account [5]

Investors' Accounts	30th June 14	30th June 15
Individual Accounts	1,871,746	1,989,443
Joint Accounts	1,076,567	1,196,173
Company Accounts	8,517	8,743
Omnibus Accounts	414	350
Principal Accounts	460	469
Clearing Accounts	649	674
Total	**2,958,353**	**3,195,852**

5.5 CSE'S MEMBER

Trading from many cities: out reach to vast investors

CSE is the first bourse to automate the nationwide trading system on June, 1998. The Exchange uses the latest in communication technology to give instant access from every location of the country. Currently there are 336 Members of the Exchange and all are corporate body ready to serving a wide base of investors.

Transparency

Online real time trade matching system ensures accountability and transparency in the market that helps to enhances investors' confidence.

Internet Trading System

[5] Annual Report 2015, of CDBL

CSE extended its network to both home and abroad by introducing Internet Trading System. Internet Trading System enables an investor to have an access to our Market through the System from anywhere in the world where there are internet access.

Visibility

CSE trading system provides trade and post-trade information to the investors. The investor knows the depth of the market on real time basis. The system shows the best 5 buy and sell orders and also the total number of securities available for buying and selling in the market.

Short settlement period

The settlement period for good category of companies is shorter and the Exchange as a counter party of the executed trade successfully completes the settlements though the trading network is vast.

Facility to the listed companies to broadcast their corporate announcements

The CSE network disseminates the corporate disclosure such as financial report, announcements of book closure dividend, bonus, rights, takeover, mergers etc. are disseminated across the country thus minimizing scope for price manipulation or insider trading.

Very competitive low Listing Fees

Listing fees at Chittagong Stock Exchange are very competitive and reasonable.

Market analysis and investors' relations

Chittagong Stock Exchange has a research cell for continuous market status apperception and understanding investors' general behavior.

5.6 WESTERN SECURITIES AND INVESTMENT MANAGEMENT LTD.

Western Securities and Investment Limited (DPID: 29300) is one of the members of Chittagong stock exchange. It is recently relocated to Mirpur DOHS (earlier it was in Mirpor 10), Dhaka. It continues its operations since 1997 till date. It is registered as one of the members of Chittagong Stock Exchange. Again though Chittagong stock exchange sounds that it should be located at Chittagong, due to the technological development, they can operate through out the country. From any corner of Bangladesh, stock exchanger can be connected through internet and can be operated. A typical secured line is laid to connect the broker houses in a net. Investors of Dhaka Stock Exchange also are spread throughout the country.

5.6.1 Organization Structure

Western Securities and Investment Limited function through five Directors in their organization chart. The Directors are taking responsibility of separate functionalities. Though they look after separate functionalities, their all actions are coordinated through the Managing Director of the organization. Each year the Managing Director is newly selected from among the five share holders of the house. This selection is again done by the election amongst the directors, as all have the equal share holding in this company. The organization structure of the Western Securities and Investment Limited is a simple one, which depicts the separate functions of the directors along with the Managing Director at the Top of the organization chart. This house is one of the many branches within Dhaka City. Different branches might have different organizational setup. The design of the setup has been done considering efficiency and effectiveness of the organization. In large organizations more people are engaged and the span of supervision as well as organizational structure is also large. But this securities house is somewhat a small organization which have limited manpower engaged to continue its operation. Here is the setup shown bellow:

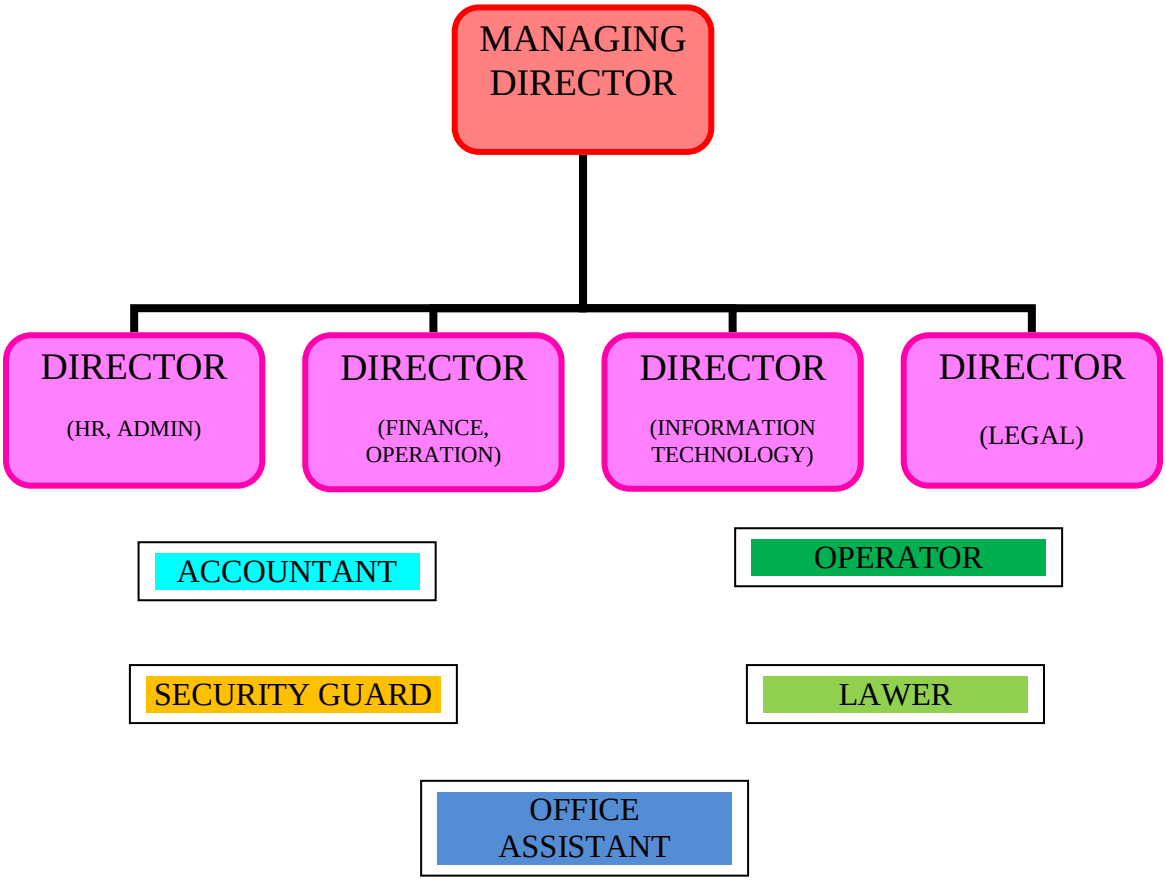


Figure 5.8: Organization Chart of Western Securities and Investment Management Limited.

5.6.2 Competitive Strategy

Client Base

Due to their continuous and unhindered investor oriented environment, they have a well reputation and a set of loyal client base. Investors are gradually increasing, though recent bear market is not broker friendly. They always focus on the customer services and to offer additional facilities for the customers to build and retain their customer base. A comparative study of yearly customer statistics will prove their relentless effort to retain and expand their business, which is given bellow:

Table 5.9: Yearly Comparison of Client Base and growth

Serial Number	Year End	BAO Account	NRB Accounts	Total Accounts	Increase %	Remarks
1	1997	898	7	905		Beginning Year
2	1998	2154	20	2174	140.22%	
3	2002	3070	37	3107	42.91%	
4	2004	5256	40	5296	70.45	
5	2006	7560	45	7605	43.58	
6	2007	9575	46	9621	26.5	
7	2008	14753	55	14808	53.91	
8	2009	16805	57	16862	13.87	
9	2010	15537	54	15591	(7.53)%	
10	2011	15709	56	15765	1.11%	
11	2012	15000	57	15057	(4.5)%	
12	2013	15380	60	15440	2.55%	
13	2014	15450	65	15515	0.5%	
14	2015	15900	72	15972	2.95%	

Superior Services

Western Securities and Investment Limited is the pioneer in the Mirpur -10 (at present it is located in Mirpur DOHS) area to serve the investors to operate in the Chittagong Stock Exchange. Since beginning they had the mission to attract more and more client through their superior service. They offer Air Conditioner Environment for the clients. They use dedicated Information Technology Backbone to connect and trade. Their down time is the lowest in comparison to other broker houses in the area. They provide investors with a wide projection screen of 72 inch during the trading hours, for the clients to take up decision and view the statistics, real time trading information. Any client want print out any time of their transaction, they are ready with their back office to support. All the employees of Western Securities believe in dedication to wards customer services. They are professional individual selected after a thorough recruitment process.

Chapter Six

STUDY RESULTS AND FINDINGS

CONTENTS

6.1 INTRODUCTION

Common Stock Market in Bangladesh is a small market, in comparison to other renowned markets like New York Stock market or Toronto Stock market. As the depth is less so the market swings are more frequent and easy. It is quiet easy for the emotional investors or irrational investors to make an impact by their investment decision. On the contrary, if the market capital would be of a considerable depth, than the impact would not be possible so easily.

Difference between Investor and Speculator

There is a distinct difference between investor and speculator. Most of the participants in the stock market of Bangladesh are not aware of this difference.

"An investment operation is one, which upon thorough analysis promises safety of principal and an adequate return. Operations not meeting these requirements are speculative."[1]

However this study was conducted exclusively on behavioural finance and market anomalies issues. The study evidenced the presence of the following cognitive components of Behavioral Finance listed in the table bellow:

Table 6.1: Components of Behavioral Finance (Cognitive Components) and Usual Symptoms.

Serial	Components	Symptoms	Remarks
1	Anchoring	Previously Fixed Price anchor	
2	Mental Accounting	Money in Different Account	
3	Confirmation and Hindsight Bias	Looking for preconceived pattern/ Prediction after occurrences	
4	Gambler's Fallacy	Relation with previous Events	
5	Herd Behavior	Bandwagon Effect	
6	Over Confidence	Frequent Buy and Sell	
7	Over Reaction	High Buy/Sale Pressure	Irrational

[1] Benjamin Graham (1934), Security Analysis.

6.2 RESULTS

In the following section, the findings are presented. As the researcher had explored few key findings that pioneer in the field of Behavioral Finance which he had identified as contributing to irrational and often detrimental financial decision making in the perspective of Bangladesh. As the reader read through them, they can simultaneously consider whether they have ever fallen prey to some of these biases. Chances are, at one point or another, they all may have.

The Characteristics of the Respondents

The knowledge characteristics/dimension of the sampled investors' is presented in table 6.2. Majority of the investors were investing for 3 to 5 years where as more than 26% only investing for more than 5 years. This indicates that a huge percentage of investors are of the category which falls between one to five years of experience. This level of experience is very low for an investor to grow mature in the investment field of common stock market. Economic cycle that pertains to common stock market to include at least one boom or bull market and one bear market is not so short. Like if it is considered about 1996' bear market start time, so the next bull market came in the year 2008-2009 which was almost 12 years. This study revealed that maximum participants though aware of the 96' share market crash (83%), but were not involved in the stock market actively at that time and hence had no experience of the effect of crash.

More than 77% investors were unaware of the subject behavioural finance. It seems that they did never hear any word or anything sounding like this. It was al together a new terminology to them. It indicates their level of awareness and knowledge regarding the common stock market and teachings of financial decisions. Though some of the fund managers were aware of the concept, they did not venture to go in depth of the subject matter. Overall awareness in this regards is not very praise worthy.

Around 50% BOA account holders participated/traded in secondary markets where as 29% only in primary market and rest 21% in both primary and

secondary stock market. It is quiet hopeful that there is a huge demand in primary market. More than one fourth of total traders traded only in primary market and 21.9% also in both primary and secondary market. So the total aggregate of primary market was 29.04+21.9=50.94%. That means more than half of the total investors invest in primary market. Situation like this is suitable for the Initial Public Offering Market (IPO) market in Bangladesh. More and more new IPOs can come to the market, where they will get half of the total investors ready to invest in those new offerings. Economic growth potential is favourable here in Bangladesh.

Out of 210 respondents 86 traded within one to 5 issues, which is a good indication of the level of diversification, ie, 40.9% market participants' portfolio were narrowly diversified, where as 12.8% had widely diversified portfolio in the common stock market of Bangladesh.

Maximum market participants were of speculator category, not investor category, as only 26.1% analyzes the individual issues always before going for buying and selling decision. This is a very important finding which indicates the risk related to the market. As speculative operators are more (at least 21.9%+0%+42.3%=64.2%) so the risk associated with the market is more. This also indicates a huge market anomaly.

Figure 6.1: State of analysis about the stock.

Again, only 15.23% respondents were found to have invested/traded in the common stock market for long term duration. 30.95% of the total market participants are engaged in short term trading. It also indicates the existence of market anomaly in the common stock market of Bangladesh.

Though 33.33% respondents were still collecting information from the broker houses, information collectors from the Internet/Face book were 25.23%, which is also encouraging for an emerging middle income country like Bangladesh. Again it also is indicative to the vulnerability of the participants, as it can potentially spread rumour to the recipients.

Table 6.2: Experience and Knowledge level of the Market Participants

Variables and category	Frequency	Percentage
Experience of Participation:		
< 1 Year	20	9.5
1-2 Year	25	11.5
3-5 Year	109	51.9
>5 Year	56	26.66
Diversification of Portfolio:		
1-5 Issues	86	40.9
6-15 Issues	55	26.2
16-25 Issues	42	20
>25 Issues	27	12.8
Analysis of The Security:		
Always	55	26.1
Never	46	21.9
Some Times	20	9.5

Don't Know	89	42.3
Whether having knowledge of 1996 share market crash		
Yes	175	83.3
No	35	16.6
Whether having knowledge of BF		
Yes	47	22.3
No	163	77.6
Participation in:		
Primary market	61	29.04
Secondary market	103	49.04
Both markets	46	21.90
Expectation of the Term of Participation		
Long	32	15.23
Short	65	30.95
Both	113	53.8
Source of Information		
Broker House	70	33.33
Internet/Face book	53	25.23
Expert	12	5.71
Close Group	59	28.1
From all above	16	7.6

Categories of the Respondents

Sole share businessmen constituted only 29.5% (Table 6.3) of the capital market where as students' stake was of 10.47%, other categories 18.57% and many participants were unemployed (41.42%). This important finding tells about the unemployment rate of the country as well as the vulnerability of the participants involved in the common stock market. If for any reason the market goes down, then many investors who are unemployed will be in trouble, because they do not have any other income source. Either they had taken it as a profession or they earned money to maintain their life for that time, being unemployed. Whatever is the case, they will loose their source of income. This is a potential threat condition for the security situation of the country. In such downturn situation either the participants can sell their stocks at a lower rate or wait until the market gets to its original mark where the stocks were purchased. As unemployed participants need a constant supply of money to maintain the life and the only source is the common stock market, so the trader is left with no choice other than axing own leg by selling at lower price. It incurs a loss and has the potential to spread rumour or push the price of the stock further down.

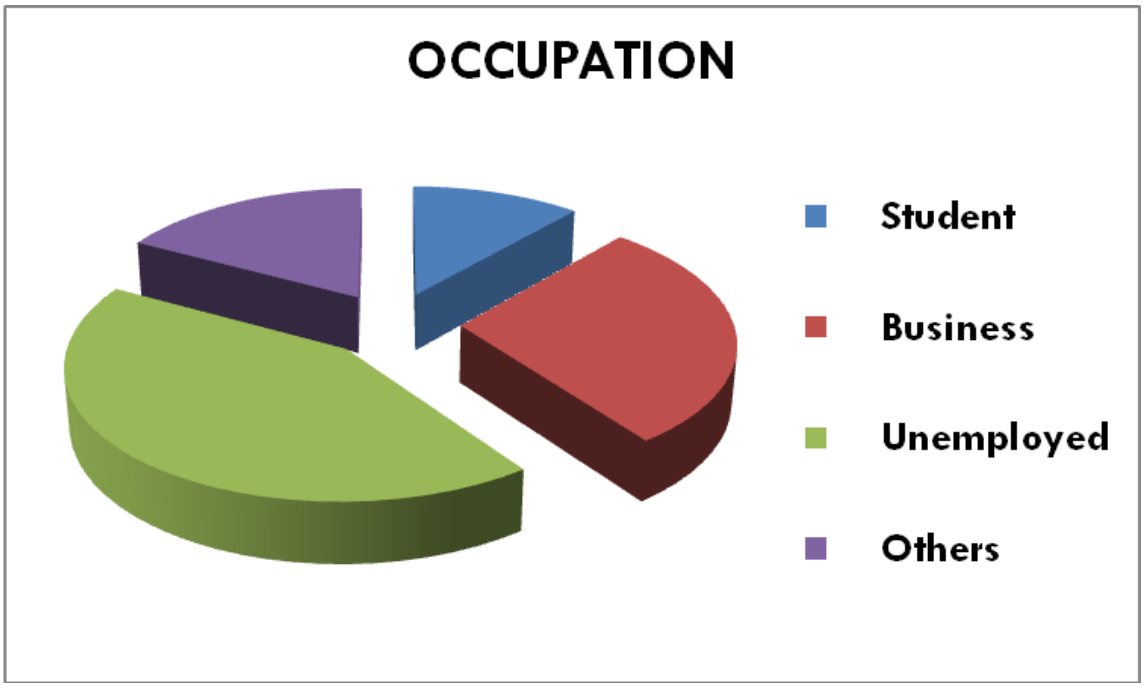


Figure 6.2: Pie Chart of the occupation of market participants

Almost 50% traders (49.52%) were over confident to buy/sale common stocks at least once in every month, 15.23% traded daily and 23.33% traded at least once in every week. This is another finding which indicates the existence of one of the important cognitive bias, i.e. overconfidence. Numerous studies were conducted which brought out the fact that overconfident traders trade more than rational investor, and they trade daily or weekly or at least once in every month[2]. To make it further clear, confidence is a good trait of a human being, but when it comes about overconfidence it always speak something negative of the human being. Overconfidence leads to disastrous outcome. For example when some one invests into real estate sector, suppose buying a piece of land, the individual does not look for an opportunity to sell the land daily, rather waits for some time before even inquiring about the renewed price, to make a profit. But in case of common stock market, mere the market gives the opportunity of price quote daily, millions of people spend considerable amount of time and effort to just monitor the daily price quoted and to buy- sell monthly, weekly or even daily. It installs unrest feelings within the investor. As a result the investor feels uneasy or restless if s/he can not trade daily. S/he feels disconnected, or even a feelings that s/he is loosing something and could not do anything in that day/week/month if could not trade.

Almost 91% investors (90.95%) are not satisfied with the common stock business in Bangladesh. Well this indicates that the incidents of stock market crash as well as prolonged bearish trend created the immense dissatisfaction among the investors of Bangladesh. Had it been otherwise, so many investors would not have opened their beneficiary account in the Central Depository Bangladesh (CDBL) via broker houses. Not only the market crash is solely responsible for this huge percentage of dissatisfaction about the common stock market, but there are some more reasons such as Gambling, irregularities of entrusted Government officials etc.

[2] Benjamin Graham, The Intelligent Investor.

"Satisfaction mostly depends on the function of expectation"[3]. As we see in the Bangladesh Common Stock Market, only 6.19% participants were satisfied by trading in the market, which is the expression of the investors' expectation to the market as well. Majority of the traders are hopeful and expect more from the market.

The investor has no interest in being temporarily right. To reach his/her long-term financial goals, s/he must be sustainably and reliably right.[4] Surprisingly the study discovered that the investors constituted only 14.3% of the common stock market of Bangladesh. This is also an indication that the market is not perfect, rational and is of fragile nature in Bangladesh, which is not sustainable and not also reliable.

Around 88% of the market participants were found to had regretted for holding shares in their trading operations. While speaking, they constantly remember this with sorrows. 37.6% investors availed the loan margin facilities offered. This availing of facilities had incurred heavy cost on them. The high interest rate was eating up their money, share as well as optimistic hopes.

Another important finding came out from the study, was about the profit/loss level of the traders'. It was found that 58.57% of the participants had the loss amounting between Tk 0 to Tk 15 lakh (1.5 million). It leads to derive that retail traders going through the bear trend of the market.

Though there were plenty or reliance on market rumour (around 38.6%), 41.4% were found to had reliance more on expert opinions. This is a finding which can serve us one of the reasons why so many traders were found dissatisfied on the market. Such thing obviously happens when anybody renders more reliance on other person's opinion than that of himself/herself. Though expert opinions are logical and justifiable, still stock market as we know that can be comparable

[3] Stephen R. Covey – The 7 Habits of Highly Effective People-Page Number-141
[4] Benjamin Graham-The Intelligent Investor, Page Number-37

mostly with a voting machine not with a weighing machine. So as a result dissatisfaction clings with the speculators.

Table 6.3: Categories of Market Participants

Variables and Category	Frequency	Percentage
Involvement in the market as		
Speculator	73	34.76
Investor	30	14.28
Seasonal	59	28.09
Unknown	48	22.85
Whether regret for holding		
Yes	185	88.09
No	25	11.90
Loan Margin		
Yes	79	37.6
No	131	62.38
Satisfaction Level		
Yes	13	6.19
No	191	90.95
Unknown	6	2.85
Present Profit/Loss Status		
Profit >15 lakh taka	13	6.19
Profit between 0 to 10 lakh taka	21	10
No profit no loss.	11	5.23
Loss between 0 to 15 lakh taka	123	58.57
Loss >15 lakh taka.	42	20
Occupation		
Student	22	10.47

Share Business	62	29.52
Unemployed	87	41.42
Others	39	18.57
Reliance more on		
Expert opinion	87	41.4
Market rumour	81	38.6
My own understanding	15	7.1
All makes confusion	27	12.9

Cognitive Biases of the Respondents

88.05% (15.23% + 23.33% + 49.52%) of the participants were found to be bearing the speculators' traits, which had been the outcome of their overconfidence and hence around 15%, 22%, 50% of them at least traded daily, weekly or monthly respectively. Numerous studies evidenced that overconfidence was the main reason for market participants to trade frequently which eventually results below average performance (return) of the individual. In the case of Bangladesh though incentive of income tax exemption plan had been introduced to increase market participation (which also indicates market anomaly), in normal situation income from capital market would be taxed, which would result the traders paying more tax while trading. Again each buy/sale order is also involves brokerage charges. As a result traders' overall outcomes become bellow average for frequent trading.[5] Though 88% traders are overconfident (Table 6.4), still it was found that 78.5% ended up at loss and more 5.23% ended up with no profit no loss situation (Table 6.3). This is a clear evidence of the degree of difficulty in beating the market by fetching above average performance. Investment after thorough analysis for a considerable amount of long term might change the situation.[6]

57.1% believed that fear and greed causing excessive sale and buy pressure which influenced the traders to take irrational financial decisions regarding common stock market (Table 6.4). These irrational decisions are the reasons for

[5] Philip Jenks & Stephen Eckett, Trading Rules from the Masters.
[6] Benjamin Graham, Security Analysis.

market anomalies. An issue which has the value of Tk 10, is priced in the market Tk 100, still there is no seller and buyers are destroying the circuit breaker resulting the transaction operation at a halt. The irrationality still not over yet, they go for street procession to blame the authority for not allowing the greater range of circuit breaker. Such display of market condition, whatever logic is shown can not be called as the field prevailing free of market anomalies. Human beings are considered to be more rational than computers. But in this case the researcher found it to be opposite. Computers automatically seized the trading of the share because of its irrational increase of price, where as humans started procession in the street to calling the rationality of computers to be irrational.

60% of the investors opined that Capital Market of Bangladesh was very often becoming the pray of anomalies (Table 6.4). As it was found (in table 6.3) that 29.52% + 41.42% = 70.94% of market participants' sole earning source is the capital market and 37.6% (Table 6.3) having margin loan facilities availed already, it was quiet natural that the pressure individual participant faced while the stock price went down was worth mentioning. Many research findings suggested that common stock market should not be the only earning source of small or retail participants without a strong financial base to maintain their separated cash flow of at least continuous one to two years. However at the point, retail participant with margin loan suffer the following dilemma:

The net worth reduces,

Merchant institutions force sell the stock from the portfolio of the participant

Earning for living is threatened.

Such dilemma leads the participants to time the market, which is another capital market fallacy. "A big mistake people frequently make is trying to time the market." [7]

[7] Liz Claman, The Best Investment Advice I Ever Received, Page Number-21

54.3% of the market participants suffer from price anchoring bias (non acceptance of little loss). The participants were bias enough to make the impression of the stock price and expected that the price would go further up, or at least would be at par of their buying price, and hence held the share instead of selling. This price anchoring phenomenon caused them a greater loss of net worth. Again 181 respondents regretted their own sale decisions within their participation period which is 86.19%. As the traders were not analyzing the market, so they regretted for their sale decision. It was found that the share prices increased substantially after they had sold the share. This finding also suggests that neither the market was perfect, nor the information regarding the market was perfect to take wise decision. “A basic ingredient of proper common stock management is the ability neither to accept blindly whatever may be the dominant opinion in the financial community at the moment nor to reject the prevailing view just to be contrary for the sake of being contrary. Rather it is to have more knowledge and to apply better judgement, in thorough evaluation of specific situation, and moral courage to act “in opposition to the crowd” when own judgement tells you that you are right.” [8]

43.2% traders did not even know how to analyze the securities and 21.4% never analyzed any kind or issues where as 86.19% always regretted for selling their shares. Making wise decisions are crucial for the investment decisions. For instance, when someone goes for buying fish in the market, s/he always tries to buy it in bargain price. Individual try to ascertain the place of origin of the “Hilsha fish”, time of being marketed, touches its body to ascertain present condition, smells it, see its eyes to assess its physical condition and how old it is, and analyze the operation of exchange, whether s/he will be gainer or looser. But in the case of share market, traders tend to forget this basic work. As a result traders end up with dissatisfaction and frustration. Again it is well known that “Frustration is a function of the expectations, and the expectations are often a reflection of the social mirror.” [9]

[8] Philip A Fisher, Common Stocks and Uncommon Profit, Page Number-277
[9] Stephen R. Covey – The 7 Habits of Highly Effective People-Page Number-170

80.95% of the respondents were found to be bias of gambler's fallacy. It serves as the reason for so many people are at loss now. Though it was not certain that the sudden fall of the price of the securities was merely the opportunity for the investment, rather the participants just took the chance of the situation, which did not favour them. The price continued to fall for around three/four years, taking the economic downward turn. First the situation of recession followed by fatal depression caused the respondents loose much of their net worth.

The research revealed that 60% of the market participants used more than one accounts for the purpose of their operation in the common stock market. Many of them though used it for primary market. This proved the existence of mental accounting bias while operating in the common stock market of Bangladesh.

87.1% of the respondents regretted for the holding of shares instead of selling it at profit or little loss. This in general reveals the overall market condition and irrationality either in the process of participation or in the superlative degree of market anomalies or irrationality in both.

Another finding proved the confirmation bias of the market participants. While the participants were asked about the process they follow while choosing the particular issue from amongst more than 350 separate issues, 48.5% of them surprisingly revealed that they did not look for every company in the state of confusion, rather they inquire about the issue they heard of and which bore a good/bad impression in their mind. They confirm about such issues and go for operation. They just confirm the information.

Surprisingly 28.6% of the participants were found to trade those shares which are traded by others, they follow. Without considering any outcome they just follow other fellows and copied their decisions. This proves the existence of herding behaviour or the bandwagon effect for the common stock market of Bangladesh. Again 24.3% were found to had believed the market rumour and taken decision basing on the rumour.

Table 6.4: Cognitive Biases of the investors

Variables and Category	Frequency	Percentage
Frequency of Buy/Sell of securities (Overconfidence)		
Daily	32	15.23
Weekly	49	23.33
Monthly	104	49.52
Yearly	25	11.9
Analysis of the Securities		
Always	54	25.7
Never	45	21.4
Some Times	20	9.5
Don't Know	91	43.20
Whether buy after Sudden Fall (Gambler's fallacy)		
Yes	170	80.95
No	40	19.04
Reasons for Market Swing		
Excessive Sale/Buy pressure	120	57.1
Gambling	45	21.4
Company Performance	18	8.5
Do not Know	12	5.7
Other Reason	15	7.1
Non acceptance of Little loss (Price Anchoring)		
Time Shortage	36	17.1
Price Anchoring	114	54.3

Gamblers are gambling	60	28.6
Regret for Sale		
Yes	181	86.19
No	12	5.7
Unknown	17	8.09
Whether sold at Loss		
Yes	111	71.2
No	45	28.8
State of using the different accounts (Mental Accounting Bias)		
Separate Account	126	60
Many but operate one only	15	7.1
Only one Account	69	32.9
Frequency of Irrational Market Fluctuation		
Very Often	126	60
Often	54	25.7
Some times	24	11.4
Never	6	2.8
Whether regretted for Holding the Share		
Yes	183	87.1
No	27	12.9
Participants seek to act up on (Confirmation Bias)		
Broker House	15	7.1

Internet/ Face Book	9	4.3
Expert Opinion	36	17.1
Close Group	48	22.8
Own Perception	102	48.5
When participants buy shares (Herding/ Over Reaction)		
When others buy	60	28.6
Rumour of price increase	51	24.3
When price goes down	42	20
When price goes up	9	4.3
2/3 Months prior to declaration	48	22.9

Cognitive Bias Leads to Irrational Behavior

72.38% of the participants were found to had sold the share after holding it for considerable amount of time. They assumed that the price would go further below, better to take whatever advantage they could get out of the share selling decision. This is totally an opposite stance taken by maximum of the participants. The rational behaviour would be to buy while the market was at the bottom line, instead of selling. The father of value investor Benjamin Graham, in his remarkable writing, “The Intelligent Investor” tried to motivate the investors by asking them to take a written oath and reading it often to be strongly determined, so that they do not conduct such irrational behaviour.

The result of such irrational behaviour creates a sale pressure on that particular issue, and further pushes the market price down. This market anomaly is quiet evident in the Capital Market of Bangladesh.

For example AB Bank Limited, a banking sector issue listed in both DSE and CSE, had such experience in February 2012, when it was selling at 33 per share.

Table 6.5: Financial Performance of AB Bank[10]

Year	Basic EPS		Basic EPS (restated)		Net Asset Value Per Share	Restated Net Asset Value Per Share	Net Profit After Tax (mn)	
	Based on		Based on					
	Continuing operations	Including Extra-Ordinary Income	Continuing operations	Including Extra-Ordinary Income			Continuing operations	Including Extra-Ordinary Income
2000	38.75	n/a	n/a	n/a	221.07	n/a	158.86	n/a
2001	64.22	n/a	n/a	n/a	261.09	n/a	263.284	n/a
2002	5.78	n/a	n/a	n/a	234.46	n/a	23.69	n/a
2003	3.63	n/a	n/a	n/a	234.25	n/a	17.12	n/a
2004	18.19	n/a	n/a	n/a	251.22	n/a	90.07	n/a
2005	31.26	n/a	n/a	n/a	303.76	n/a	162.45	n/a
2006	93.08	n/a	n/a	n/a	481.74	n/a	532.19	n/a
2007	256.10	n/a	85.37	n/a	807.00	202.33	1903.49	n/a
2008	103.18	n/a	89.72	n/a	301.49	262.16	2300.62	n/a
2009	133.26	n/a	106.61	n/a	399	318.87	3417.19	n/a
2010	12.45	n/a	10.82	n/a	44.14	38.38	3989.52	n/a
2011	3.78	n/a	3.15	n/a	40.74	33.95	1394.74	-
2012	3.32	n/a			36.67		1366.95	
2013	2.20	n/a			34.78		1093.70	
2014	2.81	n/a			35.23		1495.21	
2015	n/a	n/a			n/a		n/a	

Note: All figures in BDT (Bangladeshi Taka)

Table 6.5 above shows that the net asset value was 40.74 and restated net asset value was 33.95. It was selling surprisingly lower than its net asset value. Again its EPS was 3.78 which was able to return 11.45% income, where as banks were providing FDR rate of 11.5% to 12%. It was a bargain price for the investors.

Again just for the bandwagon effect thousands of market participants heavily pursued to buy such securities which did neither have any production operation on ground, nor they existed beyond the paper.

75.7% of the respondents' response confirmed the irrational behaviour of both the participants, regulatory authority as well as suggested strongly that the market was imperfect. The reason the maximum participants had shown was just

[10] Website of Dhaka Stock Exchange- www.dsebd.org

the assumption or the outcome of the cognitive biases outlined in the Table 6.4. There were no practical reasons or analytical base for their irrational behaviour.

Table 6.6: Irrational Behavior due to Cognitive Biases of the Participants

Variables and Category	Frequency	Percentage
Reasons for selling at a very low price		
Price will fall further	152	72.38
Need urgent money	43	20.47
Other reasons	15	7.14
Reasons for buying at a very high price		
Price will increase further	159	75.7
Utilize idle Money	27	8.6
Other Reasons	33	15.7

Market Anomalies

As all know the demand, supply and price relation, when the demand will be high the price will be also high provided the supply remain constant. In the common stock market also, it is the same case. 65.7% of the market participants opined that the reason for excessive price increase was the excessive buy pressure of the traders (Table 6.7). On the contrary the price went excessive down, ie, the stocks were devaluated due to the excessive sale pressure of the traders. This behaviour commonly as known as “winner’s curse” is the reason for the price to reach beyond the top and beyond the bottom level. It is a clear evidence of market anomalies resulting from irrational behaviour of the traders.

50% market participants opined specifically on the issue that, the price of the stock remained high prior to the declaration season (when the individual issue declared the stock dividend or cash dividend or rights issue etc). Participants became more interested to trade in the market during that season, with a hope that the underlying issue will declare a good dividend for the investors. This tendency is commonly known as “January effect”, because maximum issues

have the year ending is December. This is a market anomaly caused by participants' speculative behaviour. Though the evolution of January effect was in U.S; for Bangladesh it could be called "December effect" since most of the companies have the declaration season in December. Again during this time, a huge rumor goes on in the market. Market becomes dramatic due to the presence of the information from so called insiders. Thus price shoots up, like anything.

80.95% respondents opined in favour of the existence of gamblers in the stock market of Bangladesh. Gamblers making a gambling group increase the price of particular issue, utilize the rumour and involve the small/retail investors in the market, and then suddenly quit the market, leaving the retail investors at a troublesome issue, having meagre prospect. This fallacy of the common stock market of Bangladesh is detrimental for the investors' confidence on the market. It destroys the level of confidence of the retail investors and they become unwilling to invest further even the market is fairly priced. Capital Market of Bangladesh had started suffering from the lack of investors' confidence up on the market during 2010-2011. As it was seen in the newspaper:

"Most experts said the lack of confidence on the market was the cause of the fall in share prices as the investors apparently are trying to leave the market offloading shares. However, some actions were lauded and some others were criticized, but the stock market is yet to recover."[11]

126 respondents out of 210 opined that the EPS and PE Ratio was their main concern to identify the good share in the stock market of Bangladesh. It constituted 60% of the population under study. Participants' reliance only on these two measurement criterion to select the common stock to invest was not only insufficient but also a risky venture. There are so many other related factors which influence the organization's performance. The quality of management, relationship in the industry etc to name few from remaining many criterions, must

[11] FINANCIAL EXPRESS (03 NOV 2011)- Stock market needs greater inflow of funds: Experts

be considered to select a good issue. As Warran Edward Buffet said that a good management was like a compass to the organization.[12]

30.95% participants were found selling their stocks on seeing that others were selling the stocks. Again 34.3% were found to selling stock on just hearing the message that price of the underlying stocks were likely to go down. These speculative behaviour of the traders contributed to the creation of market imperfection.

Astonishing 38.6% population believed that the main reason for changing the value of the stock is for the rumour. This is quiet a common scenario of the market, people are often the prey of rumour. It is taking a heavy toll on the investors' confidence on the common stock market. If this state continues then it will take quite a long time for the share market of Bangladesh to be stable.

Table 6.7: Common Stock Market Anomalies

Variables and Category	Frequency	Percentage
Reasons For Excessive Price Increase (Winner's Curse)		
Excessive Buy Pressure	138	65.7
Gambling	42	20
Company Performance	12	5.7
Do not know	9	4.3
Other reasons	9	4.3
Stock Prices Remain High (January Effect)		
When Gamblers Enter	52	24.76
Before Declaration	105	50
Throughout the year	19	9.04
No specific Time	34	16.19

[12] Warran Edward Buffette (2008)-The Snowball Warran Buffette and Business of Life

Existence of Gamblers in the Common Stock Market		
Yes	170	80.95
No	16	7.61
Do not know	24	11.42
Identification of Good Shares by:		
EPS & PE Ratio	126	60
Every body will tell about	75	35.7
Do not know	9	4.3
Investors Sell stocks when:		
Others were selling	65	30.95
Heard that price would go down	72	34.28
Price goes up	58	27.61
Immediate before the Declaration Time	15	7.14
Reasons of Changing Value of the stock		
Performance of the Company	45	21.4
Rumour	81	38.6
Gambling	60	28.6
Unknown	24	11.4

Respondents' Plan

The investors are quiet disheartened about the present scenario of the market. It was discovered that they heavily lack confidence on the Capital Market of Bangladesh. Total 130 respondents out of 210 making it 62.8% stated in an open ended question that they would like to quit the share market of Bangladesh. It proves the existence of "Disposition effect" (a kind of market anomaly) in the market. Because of the repeated loss incurred by the participants, they are detested in the investment operation in the market. Again 23.8% of the total population took the lesson as to time the market, take the profit whatever they

can get from the market, rather than waiting for long to achieve a substantial profit.

It was found that maximum of the respondents lacked the market knowledge and understanding of the nature of the common stock market, as such they did not plan adequately about their margin loan and necessity of constant supply of money from the market. 54.3% of the total population had to sell their shares to meet up the urgent necessity of money (Table 6.8); where as 27.1% of the population was affected because of the forced sale of the shares held by them in their portfolio by the merchant institution sanctioning loan in favour of their client (the merchant bank/broker houses). This scenario is quite disheartening for the participants. They suffer from multi pronged loss threat at this behaviour of the institutions. Again merchant institutions also logic it out like, their investment were at risk, they could not incur loss and that was the agreement between the client and the institution through formal deed of agreement with every individual investor. If client would not agree on this point they would not sanction them the loan margin. Merchant institutions having better staffs and resources to manage the risks were not taking the risk, rather by force selling the clients' stock they were making the clients the scaffold goats.

Another astonishing discovery of the study was to find the fact that 52.9% of the total population under study opined that they did not sell their stock, and are holding it forever because they are myopic risk averse, they do not want to take the loss. They believed that till the time they hold the share and not selling it, actually they were not incurring loss. Only selling shares at loss, meant a loss to them.

Table 6.8: Planning Dimension of the Participants

Variables and Category	Frequency	Percentage
Reasons for selling stocks at loss		
Urgency of Money	114	54.3
Forced sale by House	57	27.1

Fear of loosing all	18	8.6
To free up capital	9	4.3
Other reasons	12	5.7
Why did not sell at loss		
Loss is not realized until sold	111	52.9
Investing for long time	33	15.7
I will get very less amount	57	27.1
Other reasons	9	4.3
Future plan regarding investment		
No further investment rather withdraw	130	61.90
Analyze properly and then investing	16	7.61
Take small profit every time	50	23.80
Other Plans	14	6.66

6.3 OTHER DISCUSSIONS

The beneficial effect of investment in stock market is that it has the possibility of superior return than that of any other investment vehicle. Again the disadvantage of investment in stock market is that it has the possibility of loosing the investment than that of any other investment vehicle. This is a superlative degree of risk in Bangladesh environment, though lately there are some multi level marketing business units have come up to offer better return than that of bonds and fixed deposits. But there are questions about their integrity of business. Any way, small investors of Bangladesh were found in a bad shape for some long time, due to the bearish trend of the market.

In Bangladesh, there had been few studies on the common stock market, but no specific study had been done to investigate the impact of behavioural finance in the market anomalies. This study has attempted to fill in this knowledge gap through quantitative and qualitative investigation of investment decision making process and behaviour of investors', knowledge and its application in financial or

investment decision situation including buying of common stock, selling of stocks in inventories and on holding the stocks. Advanced methods of short selling is avoided, since it is considered to be very risky, and needs expertise knowledge and huge experiences in trading of common stocks.

Although investors are knowledgeable about the superior risk pattern in the market, they still approach stock market with a hope that they will be able to make better income. The study and the growth of investors' registration in the broker's houses had revealed that during 2008, 2009 there were a huge influx of investors in the Common Stock Market of Bangladesh. Evidence shows that for developing the financial conditions and for making superior returns, investors withdrew liquid assets from banks and even from the bond markets and invested in the capital market. The bond market, the insurance markets, bank industries all suffered from the liquidity crisis as people had witness in the daily news papers of Bangladesh during 2010-2011.

6.4 BANGLADESH SITUATION

Year 2011 was an eventful year for the stock market in Bangladesh with lot of potential, discussion and criticism. The country's stock markets are now going forward trying heart and soul to keep pace with other stock exchanges of the world. Though technologically the exchanges were advancing, due to the digital Bangladesh vision, still there were many rooms to improve. A long way journey is ahead of us to make the satisfied clients with filled up expectation out of the investment operation in the capital market of Bangladesh.

News papers of Bangladesh and Satellite channels had been informing the clients with the stock market conditions prevailing in Bangladesh with specific

details. Last one or two years, investors are passing very agonizing time, since the market crash in the year 2009-2010. The market has not returned to the level of expectation of the maximum investors. Investors were agitated. The stock market suffered from image crisis, and investors were withdrawing from investment operation. Investors were found often in procession in the streets throughout the country. For amendment of different hostile (as viewed by the participants) policies participants took hostile measures against the authorities and regulatory bodies. In such an attempt small investors set paper on fire in front of the Chittagong Stock Exchange in the port city on 10th May 2012, demanding enforcement of a mandatory shareholding rule for directors.

Figure 6.3: Small investors set paper on fire.

6.5 CONTRASTS IN BANGLADESH

Behavioral finance study though is new in the country like Bangladesh, but it has been a point of debate in the developed countries for a long time. Primarily it involves the cognitive biases those lead the investors to take wrong decisions, as a result the market behaves irrationally as the players in the market are the investors and fund managers who operate in the common stock market. There are some differences as well with the developed countries, and there are some new findings those have come up by this research which are worth mentioning. Some of those are discussed bellow.

6.5.1 Students Use Facebook

There are many students from different level working in the common stock market of Bangladesh. This research has revealed that almost 11.4% of the total participants were anyway or other related to the active study. Many of them were found to have been using social network sites like Facebook groups, yahoo groups, and twitter groups etc to interact with each-other, thereby they exchanged views about the common stock market. Extensive exchange of information went on by the Facebook groups. Latest information was collected

from the Facebook group discussion forum. Again some utilized the network like these to get ideas of investment as well as become conversant about the latest offers by the common stock market. A student respondent said that to get the update of the common stock market he did not even had to go to the broker house, rather he could just open the Face book account on in his laptop along with the internet modem of Zoom Ultra and he could retrieve all the relevant information about the market from the well known forum. Even for regular trading he did not go to the broker house. He operated following the internet information.

This definitely was very encouragingly good news for the country as a whole because, this sort of facilities were making things easy, transparent, affordable and reachable to many clients within time, accurately and uniformly. Getting the opinion of so many people was easy, just by connecting to the forum. Again this had a negative side as well. The opinions created a sense of bias to the prospective investors, which potentially influenced the investment decisions. It is said that forums of this sort was one of the reason for so many people to take incorrect decisions during the falling stage of common stock market of Bangladesh. Again interested groups also used the social media to drive home and influence opinion of target group and also to spread widely the rumour for purposive gain. As more flow of information is available, people need to develop the ability to filter necessary information from this unlimited information deposit.

6.5.2 Reliance on Experts

Another important aspect had come up during this research that, people had tremendous amount of reliance on the experts' opinions in Bangladesh. The root of this tremendous amount of reliance vest on number of factors. Some of those factors are retail investors' ignorance about the common stock market, lack of education about the stock market, lack of information about the issues and the company, not analyzing the issues or not having ability to analyze any particular issue, and time scarcity of the investors. These are the key points have come up through the in-depth interviews with the directors and some authorized of the capital market.

6.5.3 Gamblers Domain

It was apparently evident in the study that, almost 81.4% of the investors believed that there had been an existence of the gamblers in the common stock market of Bangladesh. This overwhelming majority of the investors' opinion proved that Bangladesh Common Stock Market was largely the gamblers' domain. This is an important indication, which could be taken care of by the concerned authorities. If the market is the pray of the gamblers, then the situation will be out of control at a certain time. Common Stock market is a sensitive market, which is well known a matter throughout the world. People do not like to loose money because of others' manipulation. A place such sensitive, if it is the victim of gamblers' gambling then reliability of the Securities and Exchange Commission will be at a stake. Already people have witnessed the evidence. Investors' faith towards the market were beaten, which lead them not to invest in common stock market. Such an essential driving force of the economy will be obstructed on the way to its development if such malady is not corrected. People also witnessed that many financial institutions were suffering from shortage of liquidity. The capital market was no more trusted by the investors. So they were not turning up towards the market. These not only were hurting the small investors, but also were contributing to prolong the bear trend in the market. This bear trend is on for almost four to five years, and people are not growing confidence on the market, rather it is declining day by day.

6.5.4 Tax Exemption

The secondary data and literature reviews revealed that tax is one of the important aspects which influenced investors' decision. All profits fall in the category of taxable income. So in the developed countries even corporations or company managements take decision about the dissemination of earned income in the form of cash dividend, stock dividend or share repurchase options etc. Whatever the investors earn from the investment in the common stock market is taxable. But in case of Bangladesh, the scenario is quite opposite to that, which already is mentioned above. The government had taken steps to encourage the investors to invest in the stock market. The part of the encouragement package is the exemption of tax from the income generated from capital market. This

decision again has positive and negative sides of its own merits. This is out of the scope of the research, so the point is overlooked.

6.5.5 Black Money

This was another contradistinction in Bangladesh. Black money was allowed to be invested in the capital market. It had positive and negative impacts in the economy and in the society. But sudden investment of huge amount of money in the stock market also influenced the market in numerous ways. Huge amount of money without any clear source of income, created a temporary liquidity supply, but when it was withdrawn, the small or retail investors faced a crisis situation almost similar to gamblers gambling.

6.6 END THOUGHTS

@ Over the years, the increased competition has brought a wind of change, not just in the economic environment within the country, but also a radical change in the choices and preferences of the financial consumers. In the endeavour to provide more personalized advice to the financial consumers, financial service providers need more insights into the minds of the consumers. However, little work has been done to understand the Bangladeshi individual investor.

@ Conventional financial theory does not account for all situations that happen in the real world. This is not to say that conventional theory is not valuable, but rather that the addition of Behavioral Finance can further clarify how the financial markets work and how the individual investor's investment decisions are influenced.