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**EXPLORING THE IMPACT OF BEHAVIORAL ANOMALIES IN INVESTMENT DECISION  
OF INVESTORS OF CAPITAL MARKET IN BANGLADESH:  
A BEHAVIORAL FINANCE APPROACH**

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# **EXPLORING THE IMPACT OF BEHAVIORAL ANOMALIES IN INVESTMENT DECISION OF INVESTORS OF CAPITAL MARKET IN BANGLADESH: A BEHAVIORAL FINANCE APPROACH**

## **Abstract**

This paper aims to investigate how behavioral anomalies manipulate investors' cogent investment decisions into silly decisions and how investors' behavioral anomalies play an imperative role on investment decisions. Regression method was adopted to analyze and interpret investors' behavioral anomalies. The study highlights on how investors' behavioral anomalies (i.e. anchoring, conservatism, endowment, optimism and hindsight) influence investors' investment decisions. To conduct this study, researchers collected primary data from 120 investors under Dhaka Stock Exchange and Chottogram Stock Exchange using structured questionnaire. Conversely, secondary data were collected from different journal articles and books. Basically logistic regression technique was run using SPSS to analyze behavioral anomalies of investors in decision making. The results showed that behavioral anomalies were leading factors to contribute decision making process of investors in Bangladesh. The findings of this paper would help to understand common behavioral anomalies and their effect in investment decisions for the decision makers and researchers.

***Keywords:** Behavioral Anomalies, Investment Decisions, Investors, Capital Market*

## **1.0 INTRODUCTION**

A capital market is a market where investors buy and sell shares, debentures etc. (Guler & Banu, 2015; Richard, 1975; Thao & Joseph, 2012). Capital markets play a very significant role in the economy of Bangladesh (Glaser, et al. 2009; Hamadi, et al., 2012). Investors usually make their investment decision independently in a capital market (Kafayat, 2014; Qing, et al., 2014). Through investment, they enjoy many benefits from a stock market like long term growth of capital, dividend income and control over the inflation. The liquidity of the stock market is more attractive for the investor for investment purpose (Kim & Nofsinger, 2003; Ngoc, 2013; Aziz & Khan, 2016). Presently psychological aspect of finance is being emphasized across the globe (Al-Hilu, et al, 2017; Asaad, 2012; Barberis & Thaler, 2003). The conventional part of finance does not pay attention to investors' behavioral anomalies.

Alternatively, behavioral finance has been griping a significant role in investors' investment decisions (Garcia, 2013; Joachim Goldberg, 2007; Jiang, 2011; Kallinterakis et al., 2009). As per conventional economic theory investors are considered that they are rational, the market is efficient and then wealth can be maximized through rational investment decisions. However, the idea of entirely rational investors that have perfect control on their decisions to maximize their utility is becoming less popular. In efficient markets, investors are considered as logical, unbiased and consistent who make optimal

investment decisions without the effects of psyche and emotions. Investors do not always make a rational decision while making an investment decision (Daniel, K. et al., 1998; Kahneman & Riepe, 1998). Different anomalies are observed when investors try to make their investment decisions.

On the other hand, Efficient Market Hypothesis (EMH) states that markets are always efficient, but in reality markets are not always efficient. An abnormal market behavior can occur, such as the January effect, Monday effect, which means that human behavior, influences securities prices and, therefore, markets. Different psychological anomalies contribute to be irrational behavior (Muradoglu, et al, 2005; Pikulina, et al., 2017; Pompian, 2006).

The effect of this is that the behavioral aspects of finance can play impact on investors' investment decisions. Many countries like Bangladesh investors have been experiencing many times massive market collapses. Researchers have usually been investigating and relating the reasons and consequences of the market behavior using traditional finance tools like Efficient Market Hypothesis (EMH), Capital Assets Pricing Model (CAPM), capital budgeting techniques etc. for the investors' investment decision. As a result, this study would have been considered empirical evidence to contribute further to explore behavioral finance. Understanding investors' impact of behavioral anomalies on investment decision, this paper would contribute splendidly. In Bangladesh, concentrating and practising behavioral aspects of finance is inadequate. This study will undoubtedly unlock the current situations.

### **1.1 Research Gap**

Most of the prior literature focused on developed North American, European, or Asian developed markets. There is a lack of research in behavioral finance covering Bangladesh capital market particularly on behavioral anomalies in investment decisions. Mobarek, A., & Keasey, K. (2000) found that developed and developing countries do not have focus on behavioral aspects of finance and insignificant studies have been conducted in the capital market of Bangladesh. This paper aims to fulfil the gap by investigating how behavioral anomalies influence investors' investment decisions and how investors' behavioral anomalies play vital role in investment decisions in the capital market of Bangladesh.

### **1.2 Research Question**

The researchers intention is to answer the following specific research questions: i) What are the impactful behavioral anomalies in investment decisions? ii) How can behavioral anomalies play a substantial role in investment decision?

### **1.3 Objective of the Study**

This study has some special objectives to be accomplished. The main objectives of this research is to find out effect of behavioral anomalies in investment decision. To some extent, the specific objectives (Malhotra, Naresh K et al., 2013) of this paper are three; first, to present the major behavioral anomalies; to find out how behavioral anomalies play a crucial role on investment decision; and third, to analyze data, interpret on findings and present some recommendations.

### **2.0 REVIEW OF LITERATURE**

Behavioral finance is one of the best approaches to explain investors' investment behavior in their investment decisions. Researchers attribute the behavioral biases of investors and stock market anomalies to psychological concepts (Grinblatt & Keloharju, 2009; Trinugroho & Sembel, 2011; Venkata, *et al.* 2018). During decision making investors' ignore behavioral aspects of finance; they focus on traditional measures of the firm performance like EPS, DPS, past performance, money market's condition, advice of brokerage houses, family and friends while making investment decisions Akhter, R., & Ahmed, S. (2013). The people are systematically over-reacting to unexpected and dramatic news results in substantially weak form inefficiencies in the stock market. Psychological accounting is a set of cognitive operations used by individuals and households to organize evaluate and keep track of financial activities (Amar, 2013; De Bondt & Thaler, 1985). Jay R Ritter (2003) has given a brief introduction of behavioral finance published in *Pacific Basin Finance Journal*. In his research article, he rejected the traditional assumption of expected utility maximization with rational investors in efficient market. The two construction blocks of behavioral finance are cognitive psychology (How People Think) and the limit of arbitrage (when the market will be inefficient). Early investment theories recommend that investors are rational and base their decisions on maximizing returns while limiting the risks. However, recent theories challenge these suggestions and assumptions. Human mind does not always think logically, and neither do the markets still perform efficiently. Psychological factors such as greed and fear among others can affect the investment choices of people. While rational thinking might recommend that investing in say, the stock market is ideal for a particular kind of investor. However, fear of losing money and having met a peer who has lost money in the stock market, Raman, (1918). Chen, (2007) *et al.* found that investors were highly overconfident to make investment decision which led to poor returns from their investments. Dewri, L. V., & Islam, M. R. (2015) found that investors' investment decision depends on behavioral attributes and dividend preference.

Birau & Singh (2012) observed that investment decision is influenced in a large proportion by psychological and emotional factors. Chan, (2004) examined a central subjective bias, anchoring, which was underlying many behavioral-finance theories. Researchers added that anchoring bias formed in individual's closely monitor transactions of capital market. Chen, (2007) *et al.* found that investors were highly found Conservatism biased to make investment decision which led to poor investments decisions with poor returns from their investments. Hirshleifer, (2015) claimed that by the endowment biased investors seemed to whatever happens they try to rely on their initial decision. Researcher also described that combination of effects generated return momentum and reversal, and an over precaution outline in response to trend in public value signals (e.g. earnings news sequences). Molla E. *et al.* (2018) found that investors were biased by behavioral anomalies that influence to their investment decisions. Pompian, (2006) stated that optimism would be thought of the investors that frequent selling of securities might lead high volume of costs. Soman, (2004) claimed that traditionally thought of investors were rational, but practically they were optimistic regarding considering different costs which they believed, would reduce return of securities. Cherry, (2001) proposed that investors behaved different way over frequent selling of securities which might be thought behind considering high volume of taxes while trading securities in the capital markets. An unusual and more literature shows that hindsight also plays a significant role in investment decisions (Statman *et al.*, 2006; Lo, A.W. *et al.*, 2005; Shefrin, 2002; Daniel *et al.*, 1998).

Above is some of the brief literature reviewed following behavioral finance which highlights how the individual irrational behaviors have an impact on investment decisions. There are some causes of behavior anomalies those impact on investment decisions in the capital market. People tend to attach or “anchor” their thoughts to a reference point even though that may hardly have any logical association with the decision at hand. Conservatism deters artificial inflation of earnings available for distribution to shareholders at the expense of lenders, and limits the ability to overstate earnings and be overcompensated under compensation plans (Beatriz *et al.* (2010). Khan and Watts (2009) had the same opinion that these restrictions reduce agency costs because they discourage managerial efforts to transfer wealth to themselves instead of increasing the total firm wealth. The Endowment Investment Philosophy figures portfolios using an asset allocation methodology and it offers the best possible for superior risk-adjusted returns and lower volatility through all market cycles (Robert 2016), It's a good idea to become familiar with this philosophy as it could help building a better-performing portfolio. Optimism may also result from analysts' incentives to issue buying recommendations or optimistic forecasts to make the deal look more attractive to the market. It is argued that affiliated analysts issue

more optimistic forecasts and more favourable recommendations (Dechow *et al.*, 2000; Dugar and Nathan, 1995; Stefano & Silvio, 2007). Shiller (2000) described hindsight bias as the tendency to think that one would have known actual events are coming before that happened. Monti and Legrenzi (2009) found strong evidence for the consequences that hindsight bias could have on the investor's portfolio decisions: the portfolio allocation perception and therefore, the risk exposure.

### 3.0 THEORETICAL BACKGROUND AND RESEARCH MODEL

Agreeing with the thought of the prospect theory which defines how people choose between different options (or prospects) and how they estimate (many times in a biased or incorrect way) the perceived likelihood of each of these options. Even though the likelihood of a costly event may be minuscule. Prospect theory depicts that people tend to value gains and losses differently from one another, and, as a result, will base decisions on perceived increases rather than on perceived failures. For that reason, a person faced with two equal choices that are presented differently (one concerning possible increases and one concerning possible losses) is likely to choose the one suggesting gains, even if the two choices yield the same result. Prospect theory suggests that losses hit investors harder. There is a more significant emotional impact associated with a loss than with an equivalent gain (Kahneman & Tversky, 1979).

According to this theory, individuals maximize a weighted sum across states of the world of value functions (utilities); value depends on gains or losses rather than levels, and where the weights are functions of probabilities. In figure 1, suggesting that value is an S-shaped function of gain or loss (dual risk attitudes) ensuing in risk aversion in the gain domain and risk seeking in the loss domain. Loss aversion is reflected in a kink in the value function at zero gain or loss.

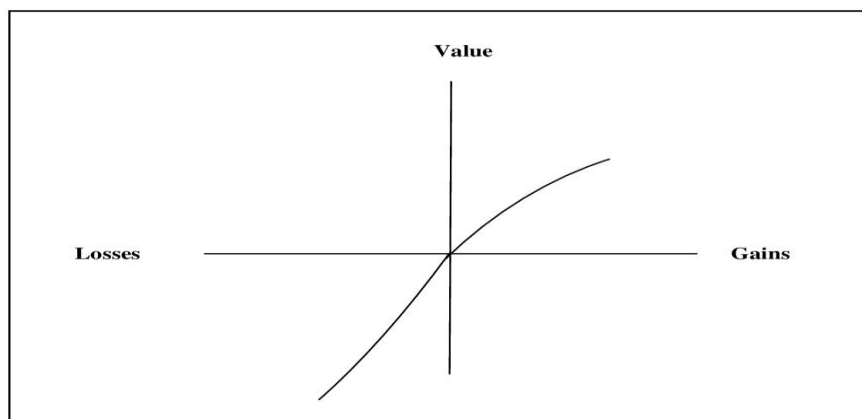


Figure 1: Prospect Theory  
Source: Kahneman, D., & Tversky, A. (1979)

This paper deals with five independent psychological anomalies i.e. anchoring, conservatism, endowment, optimism and hindsight claimed by Pompian, (2006) along with dependent variable investment decisions. Molla, (2018) found that in Bangladesh investors are found behave irrationally concerning their investment decisions. Khan, F. *et al.* (2015) observed that the behavioral aspects or psychological factors are liable to influence investors' investment decisions. The market is experienced volatile, repeatedly, i.e. market crash takes place, investors left from the market right away due to market behavior which led by behavioral anomalies of investment decisions. In this study, especially five behavioral anomalies are considered as independent variables along with one dependent variable of investment decision. These variables are examined by the thirty (31) specific questions relating to the individual variable. To some extent, the study focused on why and how anchoring, conservatism, endowment, optimism and hindsight variables influence investors' investment decision. Following model is developed by the researchers specifically for this study that may uncover the fact of investment decision of Bangladeshi investors and their investment decisions in the capital market.

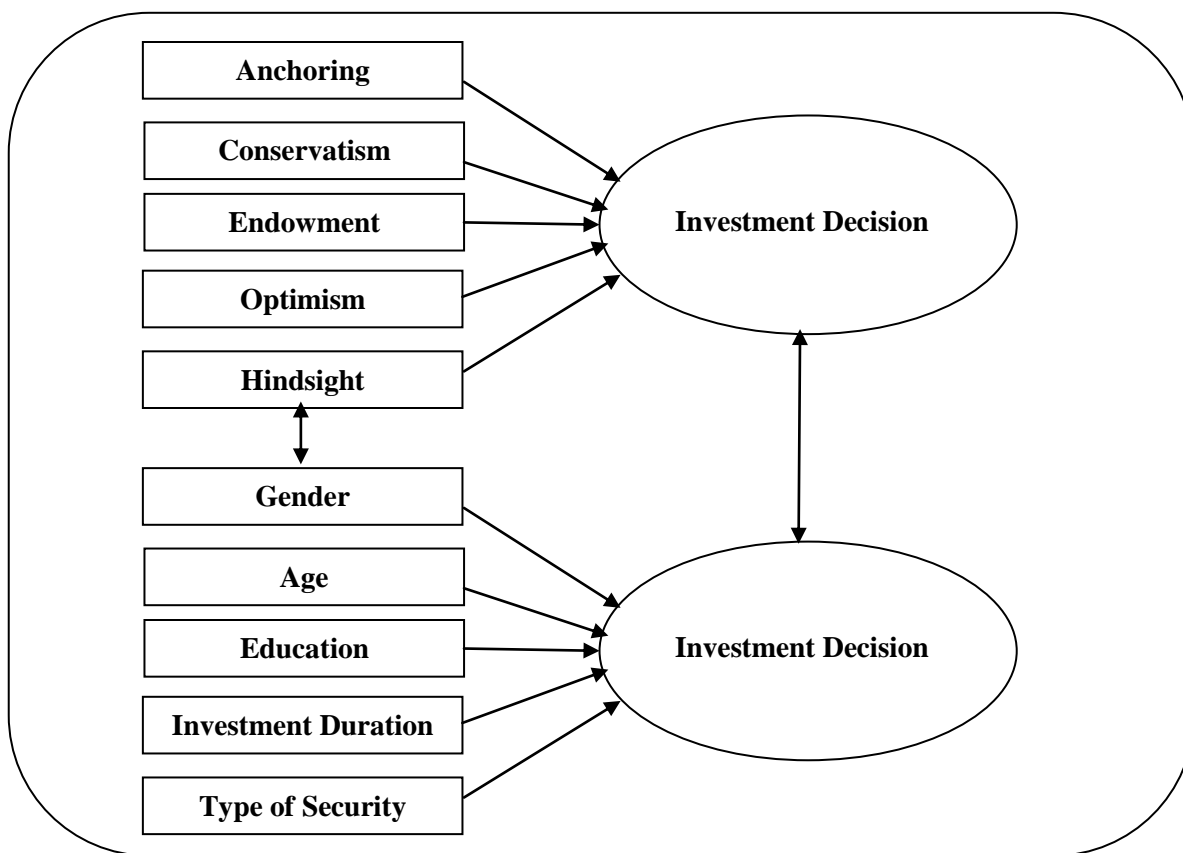


Figure 2: Conceptual model for understanding of behavioral anomalies on investment decision  
 Source: Researchers Proposed Model for the study

Above model in the figure 2, researchers tried to showcase different behavioral anomalies that may influence in investment decisions. Anchoring represents cognitive anomaly, by the variable researchers

explain that people are generally better at estimating relative comparisons rather than absolute figure. Besides, conservatism indicates also cognitive anomaly. It is mentioned, conservatism anomaly is a mental process in which investors' cling to their previous views or forecasts at the expense of acknowledging new information. Endowment prescribes as the emotional anomaly. By the variables it is meant, investors are willing to pay for a good, or an object should always equal the investors' disposition to accept dispossession of the good or the object when the dispossession is quantified in the form of compensation. On the other hand, optimism prescribes as emotional behavior. By which, investors tend to be overly about the market, the economy and the potentiality for positive performance on the investment decision they make. Many of them believe that bad investment decisions not happen to them only happen to others. Last but not the least, hindsight explains as cognitive anomaly of the investors. It is precipitated by the fact that real outcomes are more eagerly grabbed by investors' mind than the infinite array of conclusions that could have but didn't materialize. This is why, investors overestimate the accuracy of their predictions. Besides, researchers would want to uncover whether there were any impact of some other variables like gender, age, education, duration of investment and type of security on investment decisions.

### **3.1 Research Hypotheses**

**H<sub>01</sub>:** There is no significant impact of anchoring on investors' investment decision.

**H<sub>02</sub>:** There is no significant impact of conservatism on investors' investment decision.

**H<sub>03</sub>:** There is no significant impact of endowment on investors' investment decision.

**H<sub>04</sub>:** There is no significant impact of optimism on investors' investment decision.

**H<sub>05</sub>:** There is no significant impact of hindsight on investors' investment decision.

**H<sub>06</sub>:** There is no significant impact of gender on investors' investment decision.

**H<sub>07</sub>:** There is no significant impact of age on investors' investment decision.

**H<sub>08</sub>:** There is no significant impact of education on investors' investment decision.

**H<sub>09</sub>:** There is no significant impact of duration on investors' investment decision.

**H<sub>010</sub>:** There is no significant impact of type of security on investors' investment decision.

## **4.0 METHODOLOGY OF THE STUDY**

### **4.1 Data Collection, Sample and Research Instrument Description**

Both primary and secondary data were collected to carry out this research. This paper put emphasis on qualitative approach. Primary data were collected through a self-administered structured questionnaire consisting of 31 questions for both independent and dependent variables. The questionnaire was



developed by using 5 points Likert Scale, where: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree in the part ‘B’ along with some dichotomous questions in the parts ‘A’ and ‘C’. Primarily, Around 300 investors (from both DSE and CSE) are considered as population for conducting this research. Investors of different brokerage under DSE and CSE situated in Dhaka metropolitan area were considered as population. Among them, 120 (from DSE 80 and CSE 40) were selected as sample using stratified random sampling technique. Conversely, secondary data were collected from different published research articles of international and national journals. The researchers also studied some books and other authentic web links relating to behavioral anomalies and investors’ investment decisions. In this study, popular statistical methods were applied to test of hypotheses and variables relating to the objectives of the research. Mainly logistic regression model was run to analyze data. Peng, C. Y. J. et al. (2002) found that the use of logistic regression has increased in the social sciences and in educational research - especially in higher education. Besides, test of reliability, and descriptive statistics were also run to carry out this study using popular software tools like ‘Statistical Package for the Social Sciences’ (SPSS) and Microsoft Excel software.

#### 4.2 Data Reliability Test

The question of reliability rises as the function of scales is stretched to incorporate the realm of prediction. One of the most reliability statistics in use today is Cronbach’s alpha - Santos, J. R. A. (1999). Cronbach’s alpha is the convenient test used to estimate reliability or internal consistency of a composite score. Usually it gives a result 0 to 1 but sometimes adverse effects may provide. A negative effect indicates data in not fit for the test. On the other hand, the general rule of thumb, Cronbach’s alpha .70 and above is the excellent result, .80 and above better result and .90 and above is the best. Therefore, in the Table 1, Cronbach’s alpha for the thirty one items was .81, suggesting that all factors had excellent internal consistency to carry out further analyses.

Cronbach's Alpha	Number of Items
<b>.809</b>	<b>31</b>

Table 1: Test of Reliability through Cronbach’s Alpha

Source: SPSS Data Analysis Output

## 4.0 RESULTS AND DISCUSSIONS

### 5.1 Descriptive Statistics

Descriptive statistics demonstrated (Appendix: Part - A), that among the investors 79.20% were male and 20.80% were female included in the study. Conversely, maximum 67.5% investors’ age range was between 35 to 45 years. Furthermore, 56.70% of the investors were undergraduates and 43.3% were

graduates and above. Farzana W. et al. (2012) found that education is a significant factor to be considered while investors making their investment decision in the capital market of Bangladesh. On the other hand, 45.8% investors kept their investment for 2 to 5 years. Finally, maximum 65% liked to invest in the stocks.

## 5.2 Testing Hypotheses

In this part of the study, all ten null hypotheses (i.e. H<sub>01</sub>, H<sub>02</sub>, H<sub>03</sub>, H<sub>04</sub>, H<sub>05</sub>, H<sub>06</sub>, H<sub>07</sub>, H<sub>08</sub>, H<sub>09</sub> and H<sub>010</sub>) were tested to satisfy the questions and objectives of the research. For analyses, Logistic regression and independent sample test were run using SPSS and MS Excel software.

### Logistic Regression

Logistic regression assumes that the errors are distributed binomially. Unlike Ordinary Least Square Regression, the random and systematic components of the model do not map directly onto one another and non-linear link function, known as the ‘logit’, is used, Hucheson, G. D., & Sofroniou, N. (1999). In logistic regression, it is predicted the probability of Y occurring given known values of X<sub>1</sub> (or Xs).

### Logistic Analyses

Data of 120 samples data were processed, there was no missing cases showing table 2.

Unweighted Cases <sup>a</sup>		N	Percent
Selected Cases	Included in Analysis	120	100.0
	Missing Cases	0	.0
	Total	120	100.0
Unselected Cases		0	.0
Total		120	100.0

a. If weight is in effect, see classification table for the total number of cases.

Table 2: Case Processing Summary

Source: SPSS Data Analysis Output

In the study every investor was requested to response whether (s)he was rational investment decision maker or irrational decision maker. If (s)he would rational then put the value 1 otherwise put value 0.

Original Value	Internal Value
No	0
Yes	1

Table 3: Dependent Variable Encoding

Source: SPSS Data Analysis Output

Categorical Variables were coding with different parameter.

		Frequency	Parameter coding			
			(1)	(2)	(3)	(4)
Age	Below 25	9	1.000	.000	.000	.000
	25-35	7	.000	1.000	.000	.000
	35-45	81	.000	.000	1.000	.000

	45-55	14	.000	.000	.000	1.000
	55 Above	9	.000	.000	.000	.000
Which type of securities do you prefer to invest?	Stocks	78	1.000	.000		
	Mutual Funds	26	.000	1.000		
	bond/debenture	16	.000	.000		
How long have you been investing in capital market?	Less than 2 years	39	1.000	.000		
	2-5 years	55	.000	1.000		
	5 years more	26	.000	.000		
Educational Qualification	Undergraduate	68	1.000			
	Graduate and above	52	.000			
Gender	Male	95	1.000			
	Female	25	.000			

Table 4: Categorical Variables Codings

Source: SPSS Data Analysis Output

The overall result of the equation was 0.41 which suggested that null hypotheses would be rejected as equation value was less than .50. Besides from the logistic regression tables (Appendix, Part- B; Block 0: Beginning Block or Base Statistics) permitted to draw empirical evidence that different statistics of the logistics model like Iteration History, Omnibus tests of model coefficients results were significant at 5% level of significance Chi-square value 72.65. Cox & Snell R Square and Nagelkerke R Square results respectively .544 and .685 advocated the model that applied was good fit predicting the independent variable. On the other hand, Classification table implied that 85.8% of the response of samples aptly classified in this study.

### Block 1: Method = Enter

Iteration: Step 1: 1

-2 Log likelihood	Coefficients										
	Constant	Gender	Age	Education	Duration	Security Type	Anchoring	Conservatism	Endowment	Optimism	Hindsight
79.984	2.646	.690	-.585	-.149	-.612	-.047	-.637	-.237	-.058	.232	.057

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log Likelihood: 130.385

d. Estimation terminated at iteration number 20 because maximum iterations has been reached

Table 5: Iteration History

Source: SPSS Data Analysis Output

		Chi-square	df	Sig.
Step 1	Step	72.657	15	.000
	Block	72.657	15	.000
	Model	72.657	15	.000

Table 6: Omnibus Tests of Model Coefficients

Source: SPSS Data Analysis Output

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	57.729 <sup>a</sup>	.454	.685

a. Estimation terminated at iteration number 20 because maximum iterations has been reached.

Table 7: Model Summary  
Source: SPSS Data Analysis Output

	Observed		Predicted		
			I somehow rely on traditional tools and techniques measuring and predicting securities value, returns, risks etc. while making investment decision.		Percentage Correct
			No	Yes	
Step 1	I somehow rely on traditional tools and techniques measuring and predicting securities value, returns, risks etc. while making investment decision.	No	21	7	75.0
		Yes	10	82	89.1
	Overall Percentage				85.8

a. The cut value is .500

Table 8: Classification Table  
Source: SPSS Data Analysis Output

All variables in the equation presented in the table where beta, standard error, Wald statistics degree of freedom, significance level, odds ratio i.e. Exp(B) were presented to include in the model's equation.

Step 1 <sup>a</sup>	Variable	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
	Gender	2.159	1.003	4.628	1	.031	8.659	1.212	61.878
	Age	-1.568	1.755	.798	1	.372	.209	.007	6.505
	Education	-.709	.710	.999	1	.318	.492	.122	1.977
	Duration	-1.369	.970	1.993	1	.158	.254	.038	1.702
	Security Type	-.310	1.298	.057	1	.811	.733	.058	9.339
	Anchoring	-1.164	.972	1.433	1	.231	.312	.046	2.099
	Conservatism	-.575	.448	1.648	1	.199	.563	.234	1.354
	Endowment	-.267	.516	.269	1	.604	.765	.279	2.103
	Optimism	.252	.986	.065	1	.798	1.286	.186	8.877
	Hindsight	-.070	.983	.005	1	.943	.932	.136	6.394
	Constant	7.561	2.632	8.252	1	.004	1920.930		

a. Variable(s) entered on step 1: Gender, Age, Education, Duration, Security\_Type, Anchoring, Conservatism, Endowment, Optimism, Hindsight.

Table 9: Variables in the Equation  
Source: SPSS Data Analysis Output

In this study logistic equation was applied; where coefficient, beta, independent variables value were set from the above calculated table's value

$$P(Y) = \frac{1}{1 + e^{-(7.561 + 2.159X_{\text{Gender}} - 1.568X_{\text{Age}} - .709X_{\text{Edu}} - 1.369X_{\text{Dur}} - .310X_{\text{Sec}} - 1.164X_{\text{Anch}} - .575X_{\text{Conv}} - .267X_{\text{Endw}} + .252X_{\text{Opt}} - .70X_{\text{Hin}})}} \dots\dots\dots 1$$

Besides, in this study researchers applied probability ratio, the odds ratio: Exp(B) i.e. an indicator of the change in odds resulting from a unit change in the predictor. Following model was applied for analyses:



presented irrational behavior of the investors. From the line, predicted probabilities implied realistic evidence to draw how immensely behavioral anomalies would impact on investors' investment decisions.

Furthermore, in this study researchers applied to test multiple independent samples (Appendix, Part-C). The tests results recommend that among the independents variables anchoring, conservatism, endowment, optimism and hindsight anomalies had huge impact on investment decision therefore null hypotheses ( $H_01$ ,  $H_02$ ,  $H_03$ ,  $H_04$ ,  $H_05$ ) were rejected respectively. But test results surprisingly also advised to consider that gender, education, duration of investment, type of security were not impactful on investment decision. As a result, null hypotheses as per test of multiple independent samples advocated accepting.

## **6.0 CONCLUSION AND RECOMMENDATION**

The study is planned to understand the impact of behavioral anomalies; anchoring, conservatism, endowment, optimism and hindsight that influence investors' irrational investment decisions. Through some particular analyses during the study, specially predicting human behavior was a challenge to the researcher but successfully triumphed over with the help of logistic regression model. Besides, descriptive frequency statistics was run to present general idea on survey responses. Data set of the analyses was excellent fit to run every analysis effectively which was an evidence of Cronbach's Alpha result .81. Basically, study revealed that probability of getting influenced by behavioral anomalies of investors was very high (as null hypotheses were rejected with the calculated probability vale 0.41 under the rejection criteria i.e.  $<.50$  therefore the model was significantly fit to explain dependent variable) but investors usually ignored them while making investment decisions in the capital market of Bangladesh. Besides, this conclusive evidence was supported by some other results like Iteration History, Omnibus tests of model coefficients results were significant at 5% level of significance Chi-square value 72.65. Cox & Snell R Square and Nagelkerke R Square results respectively .544 and .685 advocated the model that applied was good fit predicting the independent variable. On the other hand, Classification table implied that 85.8% of the response of samples.

According to the analyses and their findings, investors should require to well aware regarding behavioral anomalies to make a proper decision in the time of investment in the capital market of Bangladesh. Academic and non-academic training, workshop, course work will be helpful to make investors understand impact of behavioral anomalies on investment decisions. Hence, all the related agencies should have basic knowledge on behavioral aspects of finance. Last but not the least, this

paper would be helpful for the students, investors, researchers and related stakeholders in future for further studies regarding understanding the impact of behavioral anomalies on investment decision.

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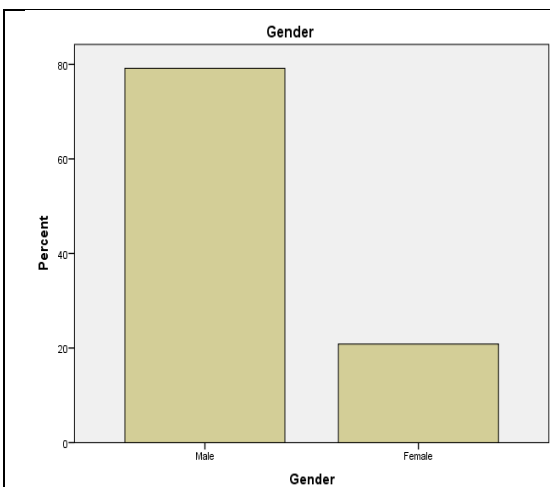
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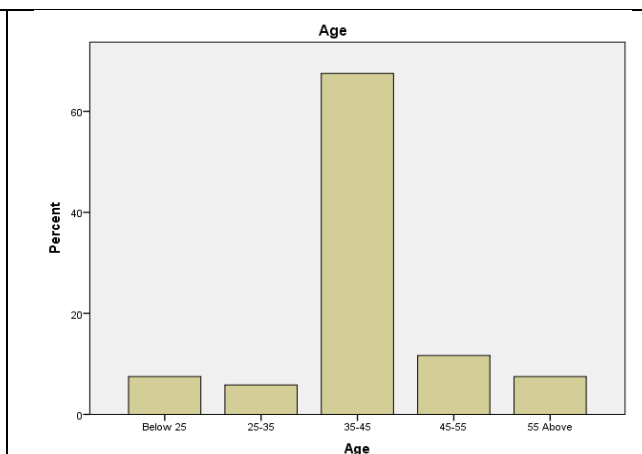
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## Appendix

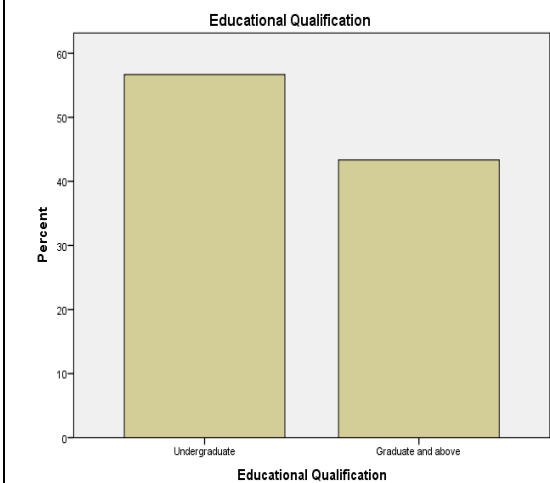
### Part A: Descriptive Statistics:



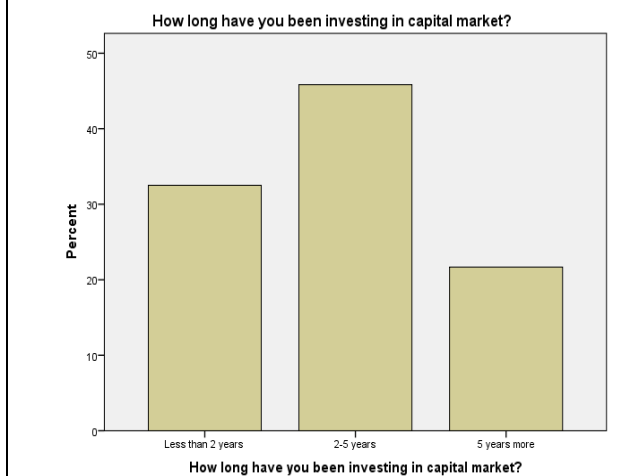
**Chart 1: Frequency Statistics of Gender**  
Source: SPSS analysis Output



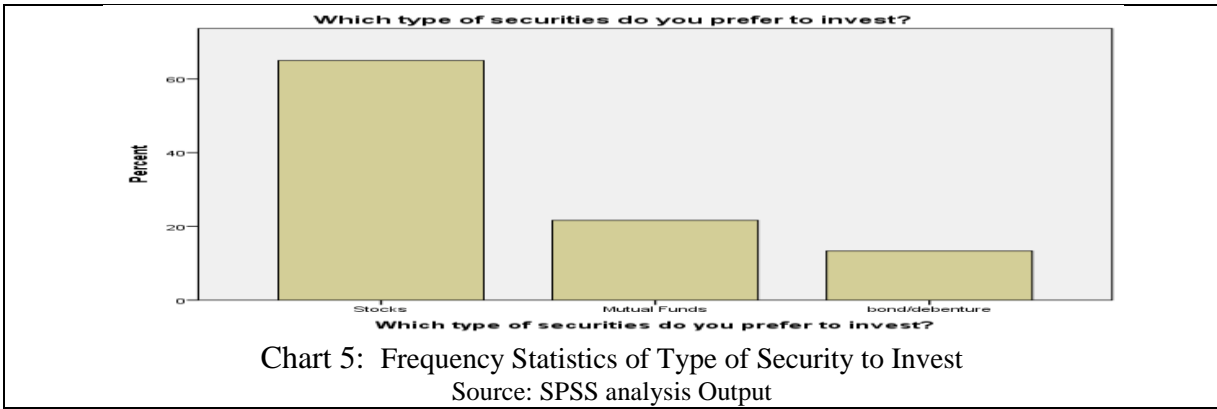
**Chart 2: Frequency Statistics of Age**  
Source: SPSS analysis Output



**Chart 3: Frequency Statistics of Education**  
Source: SPSS analysis Output



**Chart 4: Frequency Statistics of Duration**  
Source: SPSS analysis Output



**Part B: Logistic Regression**

**Block 0: Beginning Block**

**Iteration History<sup>a,b,c</sup>**

Iteration		-2 Log likelihood	Coefficients
			Constant
Step 0	1	130.717	1.067
	2	130.386	1.186
	3	130.385	1.190
	4	130.385	1.190

- a. Constant is included in the model.
- b. Initial -2 Log Likelihood: 130.385
- c. Estimation terminated at iteration number 4 because parameter estimates changed by less than .001.

Table 11: Iteration History  
Source: SPSS Data Analysis Output

**Classification Table<sup>a,b</sup>**

	Observed		Predicted		
			I somehow rely on traditional tools and techniques measuring and predicting securities value, returns, risks etc. while making investment decision.		Percentage Correct
			No	Yes	
Step 0	I somehow rely on traditional tools and techniques measuring and predicting securities value, returns, risks etc. while making investment decision.	No	0	28	.0
		Yes	0	92	100.0
Overall Percentage					76.7

- a. Constant is included in the model.
- b. The cut value is .500

Table 12: Classification Table  
 Source: SPSS Data Analysis Output

		<b>Variables in the Equation</b>					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	1.190	.216	30.378	1	.000	3.286

Table 13: Variables in the Equation  
 Source: SPSS Data Analysis Output

		<b>Variables not in the Equation</b>			
			Score	df	Sig.
Step 0	Variables	Gender	.384	1	.535
		Age	3.377	1	.066
		Duration	.881	1	.348
		Security_Type	.239	1	.625
		Anchoring	48.936	1	.000
		Conservatism	43.508	1	.000
		Endowment	42.749	1	.000
		Optimism	41.174	1	.000
	Hindsight	43.359	1	.000	
	Overall Statistics		57.888	15	.000

Table 14: Variables not in the Equation  
 Source: SPSS Data Analysis Output