

# Edited Behavioural biases and its impact

*by* Prof. Ramalakshmi Prof. Ramalakshmi

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**BEHAVIOURAL BIASES OF INVESTORS AND ITS IMPACT**

Prof. Ramalakshmi V\*

Associate Professor, Krupanidhi group of Institutions, Bangalore

rama.krupanidhi@gmail.com

**Swathi BV**

MBA student, Krupanidhi Group of Institutions, Bangalore

**V Renu Priya**

MBA student, Krupanidhi Group of Institutions, Bangalore

  
**Principal/Director**  
Krupanidhi Group of Institutions  
12/1 Chikkabellandur Village,  
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### Abstract

One among the most important challenges to our own success may be our own self-generated behavioural biases. People's choice on investments in money market is overstated by so many explanations. Behavioural biases may sneak during investment decision making process and affect the performance of investment. This study is analysing about how investors' financial decisions were influenced by behavioural biases. The four biases identified in the literature were hypothesized to have a remarkable influence on investment decision making. It is very common to be influenced by biases during investment decision making. But if we are careful and able to identify our mistakes by creating transaction and financing rules and following those rules strictly, we can eliminate those biases.

*Key Words: Behavioral Biases, Investment performance, Anchoring, Availability Bias, Informational Cascades, Emotional Contagion*

### INTRODUCTION

In finance, the investments are mainly based on two categories, traditional finance and the behavioural finance. On the basis of rationality, there exists many theories like EMH, CAPM etc. These traditional finance theories help the investors with the data available in the market, the investors rely on this data for investment decisions.

In behavioural finance perspective, the investors are irrational, since they make their own analysis based on the personality traits and past behaviour. Pathak (2006), stated that the financial savings must be in terms of financial assets rather than the physical assets for the growth of the economy. Because of the savings in the form of physical assets makes the funds to get stuck and does not rotate. During the period of 1970-1971, the investment in shares and debentures was only 0.8% which increased to 3.9% during the period of 1993-1999. The major reason behind increase is the reforms in financial market in the era of globalization but started declining during 2005-2006.

Researchers like HS & Others (2009), considered that the Indian financial market got a major boost in the field of venture during the period of 1998 to 2008. Based on the study of financial markets, they found that many investors entered into the stock market without analyzing the risks involved. There were many specific investors with minor savings who mainly depend upon others while taking investment decisions.

Survey conducted by Charles and Lawrence (2012), about Indian share market investors, revealed that major biases encountered by investors. Most of the investors experienced the

  
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anchoring bias followed by framing bias and then loss aversion bias. They recommended many methods to eliminate or minimize the impact of those biases.

Nagpal & Bodla (2009), felt that Indian investors are conservative in nature, hence prefer less risky investments. They also stated that the investors blindly follow the reference groups to make the financial investment decisions. Chowdary (2013), in the domain of behavioural finance, investigated the investors irrational financial decisions and discovered that sensitive and intellectual factors have an impact on investors during decision making process.

### Literature review

Behavioural finance is defined as a learning concept that attempts to explain and helps to know about the behaviour of investors, which comprises the psychological processes during the decision-making process regarding investment. So, it is evident from the above statement that behavioural finance explains about investment and finance from human behaviour perspective. Behavioural finance uses the philosophies of psychology to comprehend the investments and financial markets (Shefrin, 2009). The psychological reactions of the people are the main reasons for global financial crisis in 2008 and not because of fundamentals like fluctuations in the net savings rate, upturn in the real estate and rise in oil prices. During the financial crisis many investors suffered the losses due to their behavioural attitudes, since the behavioural finance offers a variety of alternatives while making the investment decisions (Adam, 2010)

In the view of Dargham (2009), that behavioural finance challenges the traditional finance as it focuses on the information available to investors and their reaction which also supports to know the behaviour of investors and real market practises. Because of behavioural finance, the investors are aware of investment biases and make the better investment decisions. Athur (2014), relates the investment decisions of individual investors to different behavioural biases like herding, anchoring, over confidence cognitive dissonance, regret aversion, mental accounting, gamblers fallacy, representativeness and inside biases.

In the view of Chowdary (2013), the decision-making process regarding investment is affected by some of the factors like overconfidence, loss aversion, over and under reaction, anchoring and herd behaviour. It was found that the investment agents are not rational and are influenced by behavioural factors like sentiments, over confidence and over reaction (Mishra et al, 2009). According to (Misal, 2013) the irrational behaviour of investors can be

  
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categorized into two major mistakes of investors i.e. excessive trading because of overconfidence and to hold back a losing venture as a consequence of regret aversion.

There are many surveys and the interviews conducted to know about the irrationality behaviour of investors like the (Jaiswal and kamil, 2012) conducted a structured interview and examined the investors behaviour and also discovered that the investors are not rational. These behavioural biases influence the investor's decision-making process which lead to

inferior results. It was also recognised by them that the investors were happy with those inferior results. According to the study conducted by Chaffai & Medhioub (2014), in Tunisia, small investors were influenced by behavioural biases. They depend upon market efficiency for making investment decisions.

(Shefrin, 2002) stated that the research people and the practioners of behavioural finance should be able to understand the mistakes of their own and others which leads to avoidance of mistakes in future investment decisions.

#### **Anchoring bias**

It was first introduced in a classical paper by Tversky and Kahneman (1974), the people at different situations make the decisions by considering the initial value that yield the final results. Hence the different estimates are based on initial value which are biased. This phenomenon is called as anchoring bias (Tversky and kahneman,1974)

According to (Raines and leathers, 2011) anchoring occurs when they believe the current prices and depend heavily on recent experiences. Investors are taking decisions based on single piece of information because of not enough research as there is too much of data to collect and analyze.

Anchoring effect is one of the most widely chosen bias out of investors choices while making investment decisions. In research, it is proved to be extremely robust since 1974 (Furnham and boo,2011). It is also observed in many real-life situations apart from laboratory settings like in legal sentencing (Mussweiler,2001), Investment decisions of institutional investors (Liao et al.,2013) and the book makers in horse races (Mealvanah and Moul, 2013).

During the mergers and acquisitions, the real-world data shows that the initial price offered plays a major role than the final price agreed upon and that acts as an anchor (Hukkanen and Keloharju, 2015)

  
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### **Availability Bias:**

(Agarwal 2012) opines that the investors behave irrationally and are also biased. When the investors are faced with complex judgements and decisions, they tend to rely on heuristics or the availability bias. (Pompain, 2012) stated that the people take decisions based on the recent outcomes or the information that easily comes to mind. Hence the advertisements are mostly chosen than the thorough analysis of options available while making the investment decisions.

Investors start investing by keeping in mind, the cost of capital and the decisions are taken based on the information available during selection and identification of stocks. Sometimes the irrelevant information also influences the decision making (Steen EV, 2002). (Qawi, 2010) stated that the information available in the market is huge and overwhelming for the investors and complex to take the investment decisions. Several studies have shown that the decisions made by investors depend on the superior evidence available to them (Weber E U, 2010).

### **Informational Cascades**

As per the study done by Bikhchandani, Hirshleifer and Welch (1992), the informational cascades are the sequence of decisions and the investors choose the informational cascades or imitate the others by avoiding their own preferences for making decisions. (Avery and Zemsky 1998) argued that the agents choose to trade based on the difference between information available to them and their own information. Where the information cascades are fragile and short-lived. De Vany and Walls, (2007) explained how the supply met the vigorously changing demands of the customers which became possible through the informational cascades (via word of mouth)

### **Emotional Contagion**

It is a phenomenon of having one person's emotion and trigger the similar behaviour in the other person. At the time of crisis, the emotional infection contracts with mutual connection between the cross- countries. The information spreads like a flu and impact the investors decision making process globally (Boyer, Kumagai and Yuan, 2006). According to Bekaert and Harvey (2003), irrespective of the market fundamentals, there is a rapid change in the movement of investments during the period of crisis.

Based on the above literature reviews, following research hypotheses were made.

  
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The following hypotheses were formulated and empirically tested in the study.

H1: There exists remarkable influence of anchoring on investment performance

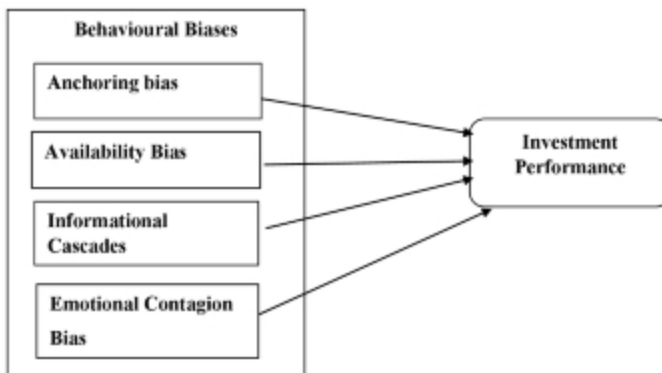
H2: There exists remarkable influence of availability bias on investment performance

H3: There exists remarkable influence of informational cascades on investment performance

H4: There exists remarkable influence of emotional contagion on investment performance

#### Research/Hypothesized Model

Figure 1: Hypothesized Model



3

#### Method

The general aim of this study is to identify the impact of behavioural biases on investment performance and to check the relationship between behavioural biases and investment performance. An organized survey with 5-point Likert scale was prepared and sent to collect the primary data. Distinct investors in Bangalore constitute the population of the research study.

#### Measures

For gathering the data, convenience sampling method was used. Questionnaire was sent to 150 respondents and 100 valid responses were obtained with a response rate of 67%. Statements related to respondents' investment decision-making process under the impact of selected behavioural biases were included in the questionnaire. The questionnaire was formed with six sections, with a total of 21 items related to various aspects of investment decision-making behaviours of the respondents. 5-point Likert scale was used in the questionnaire. Descriptive analysis of the data was carried out to ascertain the normality and reliability of

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the adapted constructs. To check the reliability of each factor, Cronbach's alpha is calculated. In order to determine the association between the variables, bivariate correlations were calculated. Multiple regression analysis was performed to examine the impact of the four predictor variables.

## Results

### Descriptive Analysis

The outcomes from descriptive analysis are presented below

Table-1 showing Descriptive Analysis of Behavioural Biases

	Cronbach's Alpha	Mean	Std. Deviation	Skewness	Kurtosis
Anchoring	.760	11.8100	1.54851	-.142	-.124
Availability bias	.719	11.4500	2.04680	-.464	.420
Informational cascades	.704	9.6400	2.60349	-.093	-.356
Emotional Contagion	.738	10.9700	2.14831	-.147	-.660
Investment Performance	.727	10.6500	2.38842	-.228	-.393
Valid N (listwise)	100				

From table 1, we see that the Kurtosis values are fluctuated among (0.420 to -0.393). It was highest for emotional contagion (Mean = 10.97, SD = 2.14831) and the lowest for anchoring (Mean =11.8100, SD =1.54851). Additionally, the highest skewness value (-0.464) was for availability bias, (Mean =11.45, SD = 2.0468), and the lowest for informational cascades (Mean = 9.64, SD = 2.60349). According to Hair et al (1998), since the values of skewness and kurtosis are between  $\pm 3.5$ , we can assume that the adapted constructs fulfil the requirement of univariate normality.

Table 1 also suggests that the Cronbach's alpha of anchoring is the highest ( $\alpha = 0.760$ ) followed by emotional contagion ( $\alpha = .738$ ), investment performance ( $\alpha = .727$ ), availability bias ( $\alpha = .719$ ) and informational cascades ( $\alpha = .704$ ). The concepts satisfy the requirements of internal consistency since Cronbach's alpha values are above 0.70.

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### Correlations Analysis

With the purpose determining the association among the variables, bivariate correlations were calculated. The outcomes are presented below.

Table 2 shows Correlations Analysis

	Anchoring	Availability bias	Informational cascades	Emotional Contagion	Investment Performance
Anchoring					
Coefficient of correlation	1	.585**	.296**	.284**	.288**
p - value		.000	.003	.004	.004
Availability bias					
Coefficient of correlation	.585**	1	.497**	.371**	.338**
p - value	.000		.000	.000	.001
Informational cascades					
Coefficient of correlation	.296**	.497**	1	.446**	.545**
p - value	.003	.000		.000	.000
Emotional Contagion					
Coefficient of correlation	.284**	.371**	.446**	1	.451**
p - value	.004	.000	.000		.000
Investment Performance					
Coefficient of correlation	.288**	.338**	.545**	.451**	1
p - value	.004	.001	.000	.000	

\*\* . Correlation is significant at the 0.01 level (2-tailed). N = 100

From table 2, we find that the highest correlation ( $r = 0.585$ ) was among, availability bias and anchoring. Also, the lowest correlation ( $r = .284$ ) was among anchoring and emotional contagion.

### Multiple Regression Analysis

Multiple regression analysis was performed to examine the impact of the four predictor variables (i.e. Anchoring, Availability bias, Informational cascades, Emotional Contagion) on investment performance. Table 3 shows the results of regression analysis.

  
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**Table 3: Regression Analysis**

	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.328	1.629		1.430	.156
Anchoring	.167	.157	.108	1.067	.289
Availability bias	-.025	.131	-.021	-.191	.849
Informational cascades	.381	.092	.415	4.148	.000
Emotional Contagion	.270	.104	.243	2.586	.011

$R^2 = 0.360$ , Adjusted  $R^2 = .333$ ,  $F$ -value = 13.333

The results of regression analysis indicate that the predictor variables (Anchoring, Availability bias, Informational cascades, Emotional Contagion) explain 36 % of the variance in the dependent variable ( $R^2 = 0.36$ ,  $F$ -stat=13.333,  $p < .05$ ). Although the overall model fitted very well, the effect of anchoring ( $\beta = 0.108$ ,  $p > .05$ ) and availability bias ( $\beta = -0.021$ ,  $p > .05$ ) were statistically insignificant.

#### Discussion

From the above table, we infer that there is no remarkable impact of anchoring on the performance of investments. Since  $p$ -value is greater than 0.05, the hypothesis is rejected. Hence the relationship between the two variables is statistically insignificant. Also, the second hypothesis is rejected since  $p$ -value is greater than 0.05. Hence there is no noteworthy impact of availability bias on the performance of investments. Hence the relationship between the two variables is statistically insignificant. The third hypothesis is accepted since  $p$ -value is less than 0.05. Hence, we infer that there is a noteworthy impact of informational cascades on the performance of investments. The fourth hypothesis is accepted since  $p$ -value is less than 0.05. Hence, we infer that there is a significant impact of emotional contagion on the performance of investments.

#### Practical implications

  
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The results have practical implications for investment decision makers. Having biases during investment decision making is common in nature. But identifying the biases within themselves is very much essential. The main observation from the study is about the effect of behavioural biases on investment performance. Information and instructions need to be provided to the investors regarding the uncertainties to overcome unfavourable outcomes due to their biases. This study suggests the individual investors to identify the presence of behavioural biases within themselves and try to debias those biases in order to optimize the return on investment.

#### Limitations and suggestions for future study

There are few limitations in this study. This study focussed on the factors of behavioural biases of the investors. Performance of investment is not affected only by those biases which were taken for the study. Investment decision making is a multifaceted procedure. Apart from the biases several other factors and biases can affect the performance of investment. These gaps can be filled in the future research studies.

#### Conclusion

In this study, behavioural biases and their impacts on investor decisions were examined. Overall, the results from regression analysis indicates that several behavioural biases have a profound effect on investor decisions. Consistent with prior studies, the results indicate that informational cascades and emotional contagion have noteworthy influence on the performance of investment. However, contrary to expectations, this study did not find a substantial impact of the biases namely anchoring and availability on investment performance. In future, researchers can examine the role of behavioral factors on investor decisions in the foreign exchange and commodity markets of India. Because of huge variation in global indices and stock prices it became very difficult for rational investors to manage investment decisions.

Hence, the current study finally concludes that investors require to concentrate on taking measures for minimizing and removing the biases influencing the investment decisions for increasing the return on investment.

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