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Website: www.aarf.asia Email : editor@aarf.asia , editoraarf@gmail.com

AN EMPIRICAL ANALYSIS OF OPTIMISM BIAS EFFECT ON INVESTMENT DECISIONS OF INDIAN EQUITY INVESTORS

Dr. Syed Tabassum Sultana
Principal,
Matrusri Institute of PG Studies,
16-1-486, Saidabad, Hyderabad, India

ABSTRACT

Optimism bias is the tendency of the investor to exaggerate his/her abilities and a tendency to be over-optimistic about an outcome or plan of action. Optimism relate to the overestimation of the favorable outcomes in comparison to unfavorable ones. The current study tries to understand Optimism bias and its implications for investors and makes an effort to find empirical evidence whether Indian individual equity investors exhibit optimism bias while making investment decision and/or other decisions too. The study concluded that investors are little less optimistic about their investing abilities when compared to general abilities since 66% of investors are optimistic about their general abilities but only 62% of the investors are optimistic about their investing abilities which little less. Hence, it can conclude that majority of the investors exhibited optimism bias with regard to their general decisions and investing decisions too.

Keywords: Optimism Bias, Investor, Investment Decisions

1. Introduction

Investors have for a long time relied on the concept of efficient markets and rational investment behavior when making investment decisions. However, the idea of fully rational investors always maximizing their utility and demonstrating perfect self-control is becoming inadequate as examples of market inefficiency in the form of anomalies and irrational investor behavior that have been observed more frequently during the past decades. As emotional biases originate from impulse or intuition, they are difficult to rectify. Hence, it is preferable to adapt emotional biases.

By identifying and explaining patterns of poor investor decision making, behavioral finance theory has contributed towards understanding of investment behavior. In contrast to rational expectations theory, behavioral finance highlights the role of social, cognitive, and emotional factors in investing. Consequently, this field helps to educate investors—an essential means of preventing investors from committing a predictable series of mistakes.

Bias is a prejudice or a propensity to make decisions while already being influenced by an underlying belief. Behavioral biases fall into two broad categories, Emotional and Cognitive, with both biases leading to irrational judgments. Emotional bias refers to the fact that a person will tend to believe something that is pleasant or uplifting even if there is ample evidence to the contrary. Cognitive biases are mental phenomena that give a wrong perception of the issues at stake. They usually get aggravate in cases of uncertainty, which are rather frequent as well in human and social life as in economic and financial situations. As cognitive biases stem from faulty reasoning, better information and advice can often correct them. Conversely, because emotional biases originate from impulse or intuition rather than conscious calculations, they are difficult to rectify. Hence, it is preferable to adapt emotional biases.

Optimism bias is an emotional bias. Empirical studies demonstrate that, with respect to almost any personal trait perceived as positive such as driving ability, good looks, sense of humor, physique, expected longevity, and so on, most people tend to rate themselves as surpassing the population mean. Even Investors tend to be excessively optimistic about the markets, the economy, and the potential for positive performance of the investments they make. Many optimistic investors believe that bad investments will not happen to them, they will only afflict others. Such oversights can damage portfolios because people fail to mindfully acknowledge the potential for adverse consequences of their investment decisions they made.

2. Objectives of the Study

- To understand the Optimism bias.
- To study the implications of optimism bias for individual investors.
- To ascertain whether individual equity investors exhibit Optimism bias in their general abilities.

- To obtain empirical evidence whether individual equity investors exhibit Optimism bias while making investment decisions and other general decisions.

3. Methodology of the Study

The focus of the current study will be on gauging the presence or the absence, not the magnitude of bias is examined; in other words, how overconfident someone is will not be decided, but rather if someone is overconfident or not. The main purpose of the designed questionnaire was to distinguish general tendencies that are related to the chosen behavioral bias. It examines how individual equity investors react to psychological dilemmas presented to them. This was done by presenting a scenario or a set of problems to the respondents, all linked to the chosen theories, which are structured in a way that certain behaviors can be traced to the answers given. This approach was important since the current study focuses on psychological tendencies.

Sample Selection: Various stock broking firms were approached for the purpose of selecting the sample. The contact details of about 1500 individual investors who were using their d-mat account actively were drawn randomly from the pool of its client base of the selected stock broking firms. Investors were contacted at initial phase with a request to participate in the survey. The questionnaire was administered to those individual investors who gave their consent, through various media as convenient to them. Convenient random sampling technique and referral sampling method is used to draw the sample for this empirical study.

Sample Size: 891 Indian individual equity investors with a response rate of 59.4% (891/1500).

Statistical Test: Z –test (Single proportion)

4. Review of Literature

Optimism bias is the tendency of the investor to exaggerate his/her abilities and a tendency to be over-optimistic about an outcome or plan of action. Optimism is related to the overestimation of the number of favorable outcomes in comparison to unfavorable ones (Shefrin, 2007). Optimistic bias in decision-making is among the most robust findings in research on social perceptions and cognitions over the last two decades Helweg-Larsen and Shepperd (2001).

Various data suggest that people tend to be unrealistically optimistic about the future Weinstein (1980). Surveys concerning automobile accidents Robertson (1977), crime Weinstein

(1977), and disease Harris and Guten (1979), find that many people believe their risk is less than average, but a few think their risk is greater than average. When people are asked to predict the outcome of social and political events, their predictions tend to coincide with their preferences McGuire (1960). Even for purely chance events such as a guess of heads or tails, people sometimes display optimistic biases, (Langer and Roth (1975).)

Weinstein and Lyon (1999) claim optimism about reaching goals could sustain motivation and help individuals to overcome obstacles. But at the same time, optimistic biases lead to the neglect of risks and could do harm. Nofsinger (2002b) has suggested an optimism bias. Optimism reduces critical analysis during the investment process, and it causes investors to ignore negative information. According to Manglik (2006), research on behavioral biases, such as optimism, in financial decision making began to gather momentum in economics only in the seventies. Scholars began to identify a pattern of anomalies in the financial markets such as, size effect and momentum effect. Initially, behavioral finance theory is considered as incomplete and 'no theory', while rational choice is considered normatively superior by traditional economists(Manglik (2006).) Only recently has financial behavior and its impact on economic theory became an accepted fact, and various dimensions of behavioral theory have been given attention. Behavioral issues are proved to affect the financial market. Among recent studies on the impact of behavioral issues on the economy, optimism is understood to have effects on many economic phenomena (Puri and Robinson (2007).)

5. Optimism Bias Description

Kahneman & Lovallo describe optimism bias as a tendency of investors to adopt an inside view, in lieu of the outside view that is often more appropriate when making financial decisions. An inside view is one that focuses on a current situation and reflects personal involvement. An outside view is objectively assesses a current situation in the context of results obtained in the past, related situations. The inside-versus-outside thought process distinguishes investors exhibiting optimism bias from investors exhibiting rational investment decision making, because most unreasonably rosy forecasts tend to derive from biased feelings about specific, current situations while largely ignoring the outcomes of previous, related situations. Consideration of such outcomes might help investors make more realistic judgments. Investors are encouraged to take an outside view, also known as *reference-class forecasting*. This technique focuses less on the characteristics of an individual investment at hand and, instead, encourages investors to examine the experiences of a class of similar investments. Investors should lay out a rough distribution of outcomes for a similar investment class and then try to forecast returns on a new prospective investment by positioning it within that asset class distribution. This outside view is more likely than an inside view is to produce accurate forecasts—and less likely to deliver unexpected outcomes. The contrast between inside and outside views has been confirmed in systematic research. Studies have shown that when people are asked simple questions designed to in still an outside view, their forecasts become significantly more objective and reliable. Most individuals, however, are inclined toward an inside view of their investments. This approach is traditional, ingrained, and intuitive. The natural way to think about a complex investment is to focus on the investment itself—to bring forth all available data, paying special attention to unique or unusual details. The thought of going out and gathering statistics about related cases seldom enters an investor's mind. Optimism in and of itself is not a bad thing. However, investors must examine downside risks, particularly when large amount money is at stake. There need to be a balance between optimism and realism, between goals and forecasts. Inside views can generate potentially successful investment ideas, but outside-view forecasts should ultimately determine whether an individual makes a specific investment in the first place.

6. Optimism Bias Implications for Investors

Undue optimism can be financially harmful as it creates the illusion of some unique insight or upper hand for investors, the illusion of some unique insight or upper hand. Often, people on some level believe that they can identify inaccurately priced securities, when in fact they cannot do so. The behaviors related to optimism that can cause investment mistakes. First, many investors falsely believe themselves to be above-average investors. Numerous studies demonstrate that, as with driving ability and good looks, market savvy is an arena in which the majority of individuals estimate themselves to outshine the majority of individuals, which is statistically problematic. One study found that "over half of the overly optimistic investors actually believed they were beating the market, and yet were underperforming by 5 to 15 percent. Their denial just made things worse, and made improvement darn near impossible." Other studies show that optimism bias can correlate with *home bias*— the desire to invest close to home—because people may be unduly optimistic about prospects in their own geographic vicinities. As discussed earlier, optimism bias can also cause investors to load up on company stock, potentially to the detriment of their long-term financial goals. Finally, some thought leaders in the investment industry continuously warn investors about the lack of “real returns” that investors actually attain. Investors of course, do not perceive their own situations this way—they often think that they are obtaining good real returns. However, optimism bias is arguably the mechanism that shields most investors from this epiphany.

Following are the behaviors related to optimism bias that can cause investment mistakes.

i. Optimism bias can cause investors to potentially overload themselves with a single company stock because optimism biases can make them think that other companies are more likely to experience downturns than their own. Also, employees feel a greater comfort and optimism with the stock of their employer, feeling that an investment there is less risky than an investment elsewhere.
ii. Optimism bias can cause investors to believe they are getting at par with market returns, when in fact they need to be wary of things like inflation, fees, and taxes that eat away these returns and eliminate the long-term benefits of compounding returns.
iii. Optimism bias can cause investors to read too much into “rosy” forecasts such as earnings estimates of analysts or their own research done by reading company reports that show rosy outlooks. Additionally, investors prefer to get good news about the markets or their investments and so may be predisposed to optimism versus pessimism.
iv. Optimism bias can cause investors to think they are above average in their investment decision making abilities, simply because they are optimistic people in general, or to believe that they are above average in other areas of their life, such as driving ability or social skills etc..,
v. Optimism bias can cause investors to invest near their geographic region (home bias) because they may be unduly optimistic about the prospect of their local geographic area.

7. Analysis and Discussion

Optimism bias is the tendency of the investor to exaggerate his/her abilities and a tendency to be over-optimistic about an outcome or plan of action. In the field of investing, it is axiomatic that the average investor will lose money in the markets. Of course every investor assumes that they will be the exception. This assumption of exceptionalism is another demonstration of the optimism bias. Optimism bias is the demonstrated systematic tendency for people to be over-optimistic about the outcome of planned actions. This includes over-estimating the likelihood of positive events and under-estimating the likelihood of negative events.

In order to test whether investors exhibit optimism equity investors were asked two questions one related to general and the second one related to investment. The general question was relative to other drivers on the road, how good drivers they are and related to investment they were asked, relative to other investors, how good investors they are. They were asked to rate themselves using the following 3 point scale below average, average and above average.

When it comes to their driving abilities 303(34.01%) of the investor rate themselves below average or average, 588 (65.99%) investors rate themselves above average. Investors who rate themselves above average are optimistic about their driving abilities. Based on the responses, the optimism bias with respect to the general abilities of investor was analysed and tested. Null hypothesis is defined as

H_{01}: Investors do not exhibit optimism bias with respect to their general abilities i.e. driving ($P = 0.5$).

Alternate hypothesis is defined as

H_{a1}: Majority of the investors' exhibit optimism bias with respect to their general abilities ($P > 0.5$).

$$Z = \frac{p - P}{(\sqrt{PQ/n})} = \frac{0.6599 - 0.5}{(\sqrt{(0.5*0.5)/891})}$$

At the 0.05 level of significance, the critical value of Z is +1.645. The computed value of Z = 9.5179 falls in the rejection region. Therefore, null hypothesis H_{01} cannot be accepted and concluded that majority of the investors exhibited optimism bias with regard to their general abilities.

The confidence interval at 95 percent was calculated

$$Z = p \pm 1.645 * (\sqrt{((p\ (1\text{-}p))/n)}) = 0.6599 \pm 1.645 * (\sqrt{((0.6599(1 - 0.6599)/891)})$$
$$= (62.72,\ 69.1)$$

It is 95 percent certain that between 62.72 percent and 69.1 percent of the individual equity investors exhibited optimism bias with regard to their general abilities. 65.99 percent of the investors exhibited optimism bias with regard to their general abilities.

When it comes to their investing abilities, 339(38.05%) of the investor rate themselves below average or average, 552 (61.95%) investors rate themselves above average. Investors who rate themselves above average are optimistic about their investing abilities. Based on the responses, the optimism bias with respect to the investing abilities of investor was analyzed and tested. The Null hypothesis is defined as

H_{02}: Investors do not exhibit optimism bias with respect to their investing abilities (P = 0.5).

Alternate hypothesis is defined as

H_{a2}: Majority of the investors' exhibit optimism bias with respect to their investing abilities (P > 0.5).

$$Z = \frac{p - P}{(\sqrt{PQ/n})} = \frac{0.6195 - 0.5}{(\sqrt{(0.5*0.5)/891})}$$

At the 0.05 level of significance, the critical value of Z is +1.645. The computed value of Z = 7.1131 falls in the rejection region. Therefore, null hypothesis H_{02} cannot be accepted and concluded that majority of the investors exhibited optimism bias with regard to their investing abilities.

The confidence interval at 95 percent was calculated

$$Z = p \pm 1.645 * (\sqrt{((p (1-p))/n)}) = 0.6195 \pm 1.645 * (\sqrt{((0.6195(1 - 0.6195)/891)})$$
$$= (58.76, 65.14)$$

It is 95 percent certain that between 58.76 percent and 65.14 percent of the individual equity investors in the twin cities exhibited optimism bias with regard to their investing abilities. 61.95 percent of the investors exhibited optimism bias with regard to their investing abilities.

8. Summary & Conclusion

Investors have for a long time relied on the notion of efficient markets and rational investment behavior when making financial decisions. However, the idea of fully rational investors always maximizing their utility and demonstrating perfect self-control is becoming inadequate as examples of market inefficiency in the form of anomalies and irrational investor behavior that have been observed more frequently during the past decades. Bias is a prejudice or a propensity to make decisions while already being influenced by an underlying belief. Behavioral biases fall into two broad categories, Emotional and Cognitive, with both biases leading to irrational judgments. Emotional bias refers to the fact that a person will tend to believe something that is pleasant or uplifting even if there is ample evidence to the contrary. Cognitive biases are mental phenomena that give a wrong perception of the issues at stake. They usually get aggravate in cases of uncertainty, which are rather frequent as well in human and social life as in economic and financial situations. As cognitive biases stem from faulty reasoning, better information and advice can often correct them. Conversely, because emotional biases originate from impulse or intuition rather than conscious calculations, they are difficult to rectify. Hence, it is preferable to adapt emotional biases. Optimism bias is an emotional bias; it is the tendency of the investor to exaggerate his/her abilities and a tendency to be over-optimistic about an outcome or plan of action. Optimism relate to the overestimation of the number of favorable outcomes in comparison to unfavorable ones. The current study tries to understand Optimism bias and its implications for investors and makes an effort to find empirical evidence whether Indian individual equity investors exhibit optimism bias while making investment decision and/or other decisions too. The study concluded that investors are little less optimistic about their investing abilities when compared to general abilities since 66% of investors are optimistic about their general abilities but only 62% of the investors are optimistic about their investing abilities which little less. Hence, it can be conclude that majority of the investors exhibited optimism bias with regard to their general abilities and also investing decisions too.

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