



Global Business and Economics Review

ISSN online: 1745-1329 - ISSN print: 1097-4954

<https://www.inderscience.com/gber>

Impact of behavioural biases on investor's decision

Sunny Saha, Md. Humayun Kabir

DOI: [10.1504/GBER.2025.10059528](https://doi.org/10.1504/GBER.2025.10059528)

Article History:

Received:	12 March 2023
Last revised:	23 July 2023
Accepted:	01 August 2023
Published online:	03 December 2024

Impact of behavioural biases on investor's decision

Sunny Saha* and Md. Humayun Kabir

Department of Business Administration,
East West University,
Dhaka, Bangladesh
Email: sunnysaha@ewubd.edu
Email: humayun.kabir@ewubd.edu
*Corresponding author

Abstract: This paper examines the issue of whether or not Bangladeshi investors have behavioural biases when making investing decisions. For the first time, a sample of Bangladeshi investors has been chosen to study the influence of behavioural biases on investment choices. Based on other studies in the field, we carefully selected seven behavioural biases, including overconfidence, conservatism, herding, availability, mental accounting, anchoring, and gambler's fallacy. To investigate the effects of biases on investors, we used a sample of 147 Bangladeshi investors who traded on the Bangladesh stock exchange. We used IBM Amos 21 and SPSS 21 to analyse the impact of behavioural biases on investors' assessments. According to the study, only overconfidence and the gambler's fallacy affect investors' decision-making. We believe the researchers will find this study to help assess how much their biased stock market decision-making has reduced rational investing.

Keywords: behavioural finance; behavioural bias; investor's decision making; bangladesh stock exchange; rational investing; Bangladeshi investors; contemporary finance.

Reference to this paper should be made as follows: Saha, S. and Kabir, M.H. (2025) 'Impact of behavioural biases on investor's decision', *Global Business and Economics Review*, Vol. 32, No. 1, pp.16–30.

Biographical notes: Sunny Saha is currently working as a Senior Lecturer in the Department of Business Administration at East West University, Dhaka, Bangladesh. She joined as a Lecturer in the same department on 1 January 2019. She completed her Bachelor of Business Administration (BBA) and Master of Business Administration (MBA) from the Department of Marketing at University of Dhaka. Her research interest includes marketing, branding, supply chain management and so forth.

Md. Humayun Kabir has been working as a Senior Lecturer in the Department of Business Administration at East West University. He received his MBA in Finance from the School of Business and Economics, North South University. He also completed his BBA in Finance from the Department of Business Administration, East West University. He received a Chancellor's Gold Medal for the highest academic standing at the graduate level in the School of Business and Economics at North South University. Besides, he received summa cum laude at the undergraduate level. His areas of interest include dividend policy, financial inclusion, and financial markets.

1 Introduction

The traditional view of finance always debates about the investors' decision that always depends on the market information and market hypothesis. The meaning of that is, when the investors take decisions to invest, they always consider the risk return trade-offs (Bakara and Chui Yi, 2016). Traditional finance, however, is unable to explain a number of stock market shocks. This paradigm saw the emergence of behavioural finance, which sought to explain these anomalies using behavioural principles (Kapoor and Prosad, 2017). The underlying premise of traditional investing theories is that investors always act in a way that maximises their return. However, numerous studies indicate that investors are not always so logical. When uncertainty surrounds an investing decision, people become perplexed. Markets are not always efficient, and people are not always logical. Behavioural finance explains why people don't always act in the way that is anticipated of them and why markets don't consistently behave in the way that is expected of them (Chaudhary, 2013). From 1979, two renowned psychologists, Kahneman and Tversky, are credited with pioneering work in behavioural finance. They developed the concept of prospect theory for the analysis of risky decision making, which became the foundation of behavioural finance (Kapoor and Prosad, 2017). As per Kengatharan and Kengatharan (2014) behavioural finance states about the different psychological traits that affect how an individual or groups act as an analyst or investor. The behavioural finance also tries to understand how cognitive errors and emotions influence investor's behaviours. People are vulnerable to behavioural biases when making decisions. People are unable to make sensible, typical decisions because of these biases. According to behavioural economists, most human decisions are not made consciously and intentionally by weighing all the options. Investors who allow behavioural biases to influence their choices may significantly reduce their wealth. Humans make unfavourable decisions as a result of ingrained biases in our bodies and minds (Bashir et al., 2013a). But none of the previous research made on the influences of behavioural biases on the investment decisions of investors on the basis of Bangladesh stock exchange. In this paper we chose seven behavioural biases that influence the investment decisions of Bangladeshi investors.

The self-attribution bias, also known as the overconfidence bias, describes a person's tendency to attribute their success to their own talent and ability while attributing their failure to 'bad luck,' causing them to overestimate their own talent. This bias is the first psychological bias that we consider for this paper. The second is the conservatism bias, which refers to the fact that investors take a long time to respond and change their opinions in light of new information and developments. The third one, known as herding behaviour, is the 'follow the leader' way of thinking. The fourth is availability bias, which occurs when someone acts on current knowledge that can be quickly acquired (Bakara and Chui Yi, 2016). The fifth bias is the mental accounting bias established by economist Thaler (1985), he said that individual classify the personal funds differently and therefore they are irrational in decision making for spending and investment behaviour. The sixth bias we consider for this paper is the Anchoring, which is a cognitive which occurs when people need to form estimates. The Gambler's Fallacy is the seventh investment psychological bias that this study takes into account. It happens when someone apparently thinks that, given a recent high return or a series of recent high returns, a specific random investment has a lower or higher likelihood of providing the best return.

We conduct a survey to shed light on how the aforementioned biases affect Bangladeshi stock exchange investors. Overconfidence, conservatism, and herding were found to have an impact on investor decisions using IBM's Amos 21 and SPSS version 21 software, respectively. This research was important because there is no other similar research on the Bangladeshi investors before. It will help the analyst and the financial decision maker to assess the impact factor while taking investment decisions or making the investment portfolio for these clients.

2 Literature review and hypothesis

The stock market is a platform that gives investors the chance to trade in different financial assets and earn profits. When making investment decisions, investors take the stock market's behaviour into account. The stock market's ability to best allocate financial resources, raise the degree of financial development, and promote economic growth is dependent on its behaviour for the financial sector and economy as a whole. Investors can understand the behaviour of the stock market by looking at its efficiency and volatility (Adeyeye et al., 2018). To make thoughtful financial judgments, the old theories of finance were well suited. Traditional financial theories, however, were unable to explain some specific stock market disruptions that occasionally took the shape of bubbles, momentum, market overreaction or under-reaction, and reversals (Kapoor and Prosad, 2017). In these circumstances, a new wing of finance, named behavioural finance, came to light to explain such anomalies. The foundation of behavioural finance was laid in 1979 by two eminent psychologists, Kahneman and Tversky, who developed the idea of prospect theory for the examination of decision-making under risk. The value function in the prospect theory has taken the place of the utility function. The 'value' those individuals place on their profits or losses is estimated by this function. According to the function, some gains or losses are felt more strongly than others. Nevertheless, there are situations when the joy of a similar amount of gain outweighs the anguish of a loss. (Kahneman and Tversky, 1979).

Typically, investors use judgment, technical analysis, and fundamental analysis to make investing decisions (Jagongo and Mutswenje, 2014). Investor protection will increase as well as investor trust in the market when investors have more affordable access to more accurate information, (Chu et al., 2017) but psychology principal will still interact with investors decision making activities intentionally or unintentionally (Jagongo and Mutswenje, 2014). According to empirical studies by Babajide and Adetiloye (2012) and Bashir et al. (2013b), as well as the occurrence of stock market anomalies, investors are not always as rational as they are portrayed to be. behavioural finance can explain these kinds of oddities. According to Chu et al. (2017), behavioural finance shows how different psychological features affect how people or groups behave as investors, analysts, and portfolio managers, and that better educated managers are more likely to recognise the worth of the company (Bashir et al., 2013a). Understanding how emotions and cognitive biases affect the actions of individual investors is made easier by behavioural finance (Kengatharan and Kengatharan, 2014). In behavioural finance some biases effect the decisions making performance of financial planners. Different scholars studied on the behavioural biases and here are few finding of them depicted below.

Overconfidence is a controversial topic of financial market that can be viewed from both positive and negative perspective, as most of the investors consider it negatively which drive the final decisions way through making financial complexity (Larrick et al. 2007). The positivity of overconfidence is found in market diversification (Gervais and Odean, 2001). According to Shin and Park (2018), Overconfidence bias causes when the current information is considered as more important than intrinsic value of stock that drive way the stocks prices from desired level. Lerskullawat and Ungphakorn (2018) specified mental accounting bias as a tendency that leads the investors to segregate various types of calculations into separate stocks by avoiding possible interactions.

On the basis of the writings of (Orléan, 2011), herding bias can be described in two views: rational and non-rational views. Herding is mostly known as rational view and non-rational view seems to follow one another within a group blindly. Investors could choose different types of risk for their portfolios based on varying sustainability, but this is made difficult by investors' anchoring behaviours. One of the most researched psychological biases is this one. If there is an anchoring bias, investors have a propensity to base stock purchase prices on the most recent high stock price, which is connected to their less-than-optimal estimating decisions and prevails their decision-making processes (Shiller, 1999). The Gambler's Fallacy focuses on the false notion that any investor who believes that an event (X) is true essentially independently of any other event may be impacted by the event (Y), even when X does not, in fact, logically or rationally, alter the result or occurrence of Y. The gambler's fallacy holds that individuals act interestingly when they accomplish things (Rakesh, 2013).

Overconfidence bias, conservatism bias, herding, and regret were four psychological biases that Lim (2012) looked at in regard to how investors made decisions on the Malaysian stock market. He discovered that herding behaviour had little effect on investors' decision-making, but overconfidence, conservatism bias, and remorse have positive, meaningful effects. An empirical study on investors' behavioural biases on the Nigerian security market was done in 2012 by Babajide and Adetiloye. The study discovered compelling evidence that Nigerian investors exhibit overconfidence, loss aversion, framing, and the status quo bias.

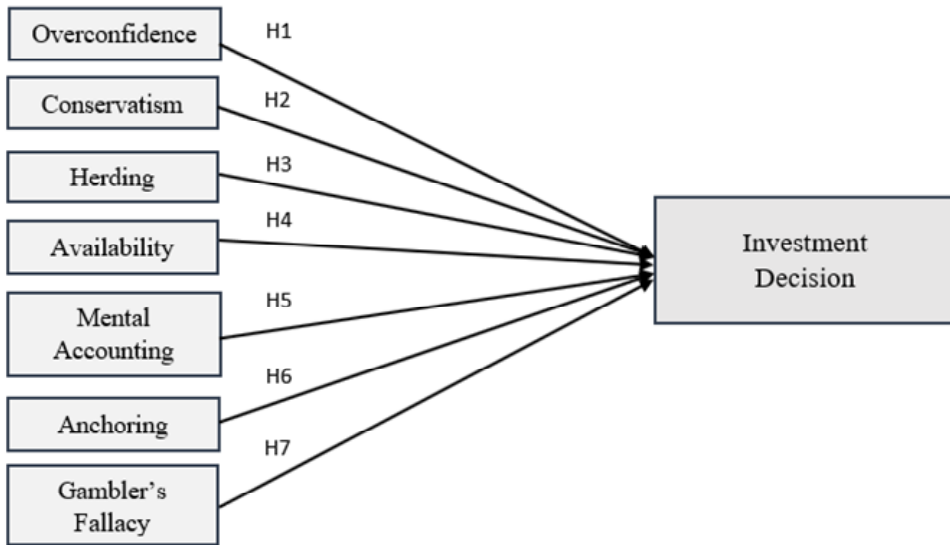
The influence of behavioural biases, such as excessive optimism, confirmation bias, the illusion of control, loss aversion, mental accounting, and the status quo, on investors' financial decision-making was examined by Bashir et al. (2013a). The study found that overconfidence, confirmation biases, illusions of control, and extreme optimism all had a positive impact on investors' decision-making. It was also shown that, despite their strong correlation, status quo, loss aversion, and mental accounting biases have little influence on investors' choices.

In the Colombo stock exchange, Kengatharan and Kengatharan (2014) looked into the behavioural elements that affect individual investors' decisions as well as the connections between these characteristics and investment performance. The findings demonstrated that individual investors' investment decisions at the Colombo stock exchange are influenced by a variety of factors, including herding, heuristics (overconfidence and availability bias), prospects, and market conditions. Apart for the anchoring variable from the heuristic's component, which demonstrates substantial influence on investment decision, most of the factors have moderate effects.

Arif and Bhuiya (2016) investigated whether the rational decision-making of investors in the Islamabad Stock Market was influenced by self-attribution bias, overconfidence, and overoptimism bias. The study came to the conclusion that the

decision-making of investors is negatively connected with all the characteristics stated. Pourbijan et al. (2014) examined just how the overconfidence bias of investors affected investing in the Tehran stock exchange market. They discovered that investing in the Tehran stock exchange market is significantly impacted by the overconfidence bias. Tripathy (2014) discovered that the psychological biases of overconfidence, anchoring, regret, and loss aversion affect the decision-making of the Bhubaneswar stock market. In order to understand how overconfidence and the illusion of control affect investors' decision-making on the Islamabad stock exchange, Qadri and Shabbir (2014) undertook an empirical study. Their findings demonstrated that overconfidence and the false sense of control have an important positive influence on the choices made by investors.

Figure 1 Conceptual model



Bakara and Chui Yi (2016) had investigated the Malaysian stock exchange investors by using the survey questionnaire same as done in this research method. The findings show that overconfidence, conservatism, and availability bias have a significant impact on investors' decision-making but herding behaviour has no obvious impact. In addition, psychological factors are shown to be gender-specific. The majority of the study's conclusions concur with data from past examinations.

Rehan and Umer (2018), examined the impact of behavioural biases on investors' investment decisions at the Pakistan stock exchange. Their findings revealed that regret aversion, representativeness, overconfidence, risk aversion and anchoring, these five behavioural biases have a significant and positive impact on investors' decision making in Pakistan. On the other hand, availability and mental accounting do not affect significantly on investors' decision.

We observed that no study was done to determine the impact of behavioural biases on investors' investing decisions at the Bangladesh stock exchange after analysing a number of studies. We develop the following seven hypotheses to analyse the actions of Bangladeshi investors on the Bangladesh stock exchange based on the background research.

- H1 Investors of Bangladesh are driving by the overconfidence bias.
- H2 Investors of Bangladesh show positive behaviour towards conservatism.
- H3 Investors of Bangladesh have herding behaviour bias to an acceptable level.
- H4 Investors of Bangladesh possess Availability bias while investment decision making.
- H5 Investors of Bangladesh are influenced mental accounting bias.
- H6 Investors of Bangladesh having anchoring bias while taking investment decisions.
- H7 Investors of Bangladesh are affected by gambler's fallacy bias.

2.1 Conceptual model

The model is generated to analyse the influences of behavioural biases on the investment decisions of investors on the basis of Bangladesh stock exchange. To prove the proposed model fitness, we will use AMOS output.

3 Objectives of the study

The objectives this research focused on are:

- 1 To examine the influence of over confidence on investors' investment decision
- 2 To scrutinise the influence of conservatism on investors' investment decision
- 3 To observe the influence of herding on investors' investment decision
- 4 To find out the influence of availability on investors' investment decision
- 5 To inspect the influence of mental accounting on investors' investment decision
- 6 To study the influence of anchoring on investors' investment decision
- 7 To detect the influence of Gambler's fallacy on investors' investment decision

4 Methodology

4.1 Research method

The paper studied the influence of behavioural biases on investors' investment decisions at the Bangladesh stock exchange. In this regard, young investors were chosen as sample. the number of young investors is increasing at the Bangladesh stock exchange. They are the ultimate risk takers, which is not so common for aged investors. Young investors are also practicing different new theories and techniques to analyse the share market. That is why we chose the young investors for our study.

4.2 *Data collection methods*

We used both secondary and primary of data for our study. As a source of primary data, we practiced survey through a semi structured questionnaire. The structured part of the questionnaire includes a number of close ended questions presented in 5-point Likert scale (strongly agree to strongly disagree). For the unstructured part we designed two open ended questions. For secondary data we chose newspapers, journals, business magazines, blogs and annual reports. We collected the required data through both online and offline survey.

4.3 *Sample and respondents*

For the study the sample size was 147. Our selected sampling frame was young investors of Bangladesh stock exchange. The sample was selected from populations that fulfilled three criteria.

- 1 domestic investors domiciled in Dhaka stock exchange.
- 2 young investors with age ranges between 18–35 years.
- 3 active investors who trade at least three times a week.

4.4 *Measurement and scaling procedures*

As measurement and scaling procedures we used formative model. According to formative model indicators do not share common theme and causality flows from indicators to construct. We used formative model to analysed the impact of behavioural biases on investors' investment decisions and the indicators include overconfidence, conservatism, herding, availability, mental accounting, anchoring and gambler's fallacy.

4.5 *Common method bias*

Podsakoff et al. (2003) stated that appropriate strategies can lessen CBM risk. Our study followed those established strategies to minimise the risk. We also rearranged survey questionnaire's order. Furthermore, respondents were promised about their secrecy for making them free from additional stress. The paper used Harman's single-factor test to find out common method bias threat.

The above principal component analysis (PCA) output revealed 19 individual factors accounting 56% of total variance. The 1st unrotated factor got 43% of data variance. Thus, single factor did not emerge and 1st factor did not capture most of the variance. Hence, for our paper CMB will not be a major threat.

4.6 *Data analysis procedure*

We used IBM's Amos 21 and SPSS version 21 software to examine the influence of behavioural biases on investors' investment decisions. The multiple regression model was employed to estimate reliability and validity. The study used Cronbach's α value to test reliability and AVE value to test validity. Then, we used Amos 21 to examine how

behavioural biases affect investors' investment decisions. To test the hypotheses, we used C.R. and P values derived from path analysis.

Table 1 PCA output

Component	Total variance explained					
	Initial Eigenvalues			Extraction sums of squared loadings		
	Total	% Of variance	Cumulative %	Total	% Of variance	Cumulative %
1	8.218	43.255	43.255	8.218	43.255	43.255
2	1.400	7.366	50.622	1.400	7.366	50.622
3	1.029	5.418	56.040	1.029	5.418	56.040
4	0.926	4.872	60.911			
5	0.828	4.360	65.272			
6	0.739	3.890	69.161			
7	0.682	3.588	72.750			
8	0.634	3.339	76.089			
9	0.586	3.085	79.173			
10	0.544	2.864	82.037			
11	0.488	2.568	84.605			
12	0.465	2.446	87.052			
13	0.443	2.332	89.383			
14	0.393	2.066	91.449			
15	0.368	1.939	93.388			
16	0.348	1.831	95.220			
17	0.335	1.763	96.982			
18	0.306	1.612	98.594			
19	0.267	1.406	100.000			

Note: Extraction method: principal component analysis.

5 Data analysis

To prove a study reliable, the prescribed value is ≥ 0.70 (Nunnally and Bernstein, 1994). Evaluating the derived values, we can prove our study reliable as the values range from 0.01 to 0.85.

AVE value can prove a paper's convergent validity and established value is ≥ 0.50 . Table 2 shows that the derived AVE values range from 0.53 to 0.98. Therefore, we can conclude that our study is a reliable one.

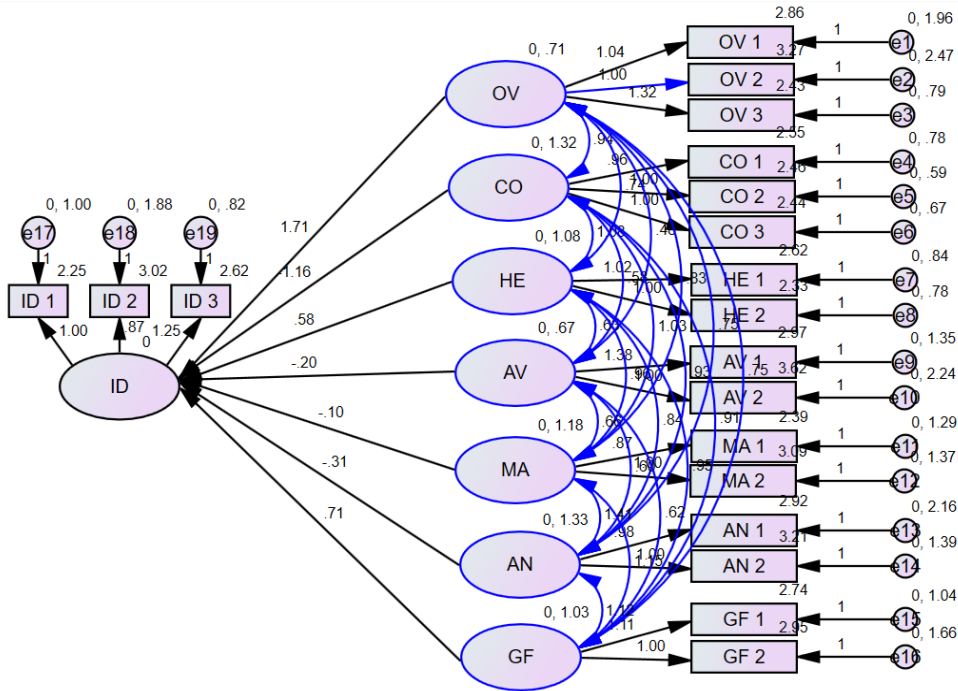
The prescribed CFI, TLI AND RMSEA values indicate whether a model have a good fit or not. The recommended values are $CFI \geq 0.95$ (Schreiber et al., 2006), $TLI \geq 0.90$ (Schreiber et al., 2006) and $RMSEA \leq 0.06$ (Hu and Bentler, 1999). Through analysis, the resulting values are $CFI = 0.961$, $TLI = 0.914$ and $RMSEA = 0.053$. all the generated values indicate a good model fit as the values fulfil are the conditions.

Table 2 Cronbach’s α value and AVE value

Construct	Overconfidence	Conservatism	Herding	Availability
Cronbach’s alpha	0.847	0.850	0.832	0.701
Average variance extracted (AVE)	0.558	0.982	0.576	0.359

Construct	Mental accounting	Anchoring	Gambler’s Fallacy	Investment decision
Cronbach’s alpha	0.708	0.796	0.731	0.786
Average variance extracted (AVE)	0.438	0.431	0.466	0.656

Figure 2 Path analysis model (see online version for colours)



The correlation between the constructs and indicators is established by above diagram. A positive correlation is present here between overconfidence and its indicators as the derived values are 1.04, 1.00 and 1.32. The same situation is noted for conservatism, herding, availability, mental accounting, anchoring and gambler’s fallacy. Negative correlation is studied between availability and investment decision; mental accounting and investment decision; anchoring and investment decision. Positive correlation is also present here between overconfidence and investment decision; conservatism and investment decision; herding and investment decision; gambler’s fallacy and investment decision which indicate a change in overconfidence, conservatism, herding and gambler’s fallacy generate positive change in investment decision.

Table 3 Regression weights: (Group number 1 – default model)

<i>Indicators</i>	<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P</i>
ID<---OV	1.713	0.758	2.259	0.024
ID<---CO	-1.164	0.561	-2.074	0.038
ID<---HE	0.583	0.362	1.610	0.107
ID<---AV	-0.199	0.231	-0.863	0.388
ID<---MA	-0.103	0.206	-0.500	0.617
ID<---AN	-0.306	0.199	-1.540	0.124
ID<---GF	0.709	0.350	2.025	0.043
OV 1<---OV	1.038	0.096	10.822	***
OV 2<---OV	1.000			
OV 3<---OV	1.323	0.104	12.717	***
CO 1<---CO	0.955	0.039	24.767	***
CO 2<---CO	1.000			
CO 3<---CO	1.003	0.038	26.608	***
HE 1<---HE	1.016	0.050	20.368	***
HE 2<---HE	1.000			
AV 1<---AV	1.382	0.146	9.474	***
AV 2<---AV	1.000			
MA 1<---MA	0.873	0.053	16.399	***
MA 2<---MA	1.000			
AN 1<---AN	0.981	0.064	15.254	***
AN 2<---AN	1.000			
GF 1<---GF	1.108	0.064	17.215	***
GF 2<---GF	1.000			
ID 1<---ID	1.000			
ID 2<---ID	0.867	0.069	12.610	***
ID 3<---ID	1.248	0.068	18.466	***

Table 3 shows AMOS text output for structural path. To attest the variables' significant, the prescribed value should be $C.R. \geq 1.96$ and $p \leq 0.05$. According to these values, conservatism; herding; availability; mental accounting and anchoring are not significant as they did not match with the required C.R. and p values. Rest of the variables, i.e., overconfidence and gambler's fallacy are significant by fulfilling the designated values.

The table is created to show the acceptancy evaluation of hypothesised relationships with derived data from path analysis. The hypothesis will be acknowledged as accepted if $C.R. \geq 1.96$ and $P \leq 0.05$.

H3, H4, H5 and H6 are rejected as $C.R. \leq 1.96$ and $P \geq .05$. For H2, $P \leq 0.05$ but $C.R. \leq 1.96$. So H2 is also rejected. Hence, conservatism, herding, availability, mental accounting and anchoring do not have a prominent impact on investment decision.

On the other hand, H1 and H7 are accepted as $C.R. \geq 1.96$ and $P \leq 0.05$. So, it can be said that overconfidence and gambler's fallacy enhance investment decision.

Table 4 Regression weights

<i>Indicators</i>	<i>Estimate</i>	<i>S.E.</i>	<i>C.R.</i>	<i>P</i>	<i>Result</i>
Investment decision<---overconfidence	1.713	0.758	2.259	0.024	A
Investment decision<---conservatism	-1.164	0.561	-2.074	0.038	R
Investment decision<---herding	0.583	0.362	1.610	0.107	R
Investment decision<---availability	-0.199	0.231	-0.863	0.388	R
Investment decision<---mental accounting	-0.103	0.206	-0.500	0.617	R
Investment decision<---anchoring	-0.306	0.199	-1.540	0.124	R
Investment decision<---gambler's fallacy	0.709	0.350	2.025	0.043	A

Note: ***S. E= standard error, *** C. R= z value (regression/ (standard error).

6 Discussion

A little number of studies could have attained the topic we have adopted and those studies established discrete outcomes. From the findings we get that Overconfidence bias has significant impact on investment decision of investors. In their study, Taborda et al. (2019) also found that overconfidence has an impact on the investment decisions of investors. On the other hand, Lim (2012), Qadri and Shabbir (2013), Bashir et al. (2013b), and Bakara and Chui Yi (2016) proved that Overconfidence has no impact on investor's decision making process. Our investors did not show conservatism while investing; that is just opposite from the researches done by Lim (2012), Kengatharan and Kengatharan (2014) and Bakara and Chui Yi (2016). Herding is a bias that have not any impact on the Bangladeshi investors which does not match with the findings of Lim (2012) and Bakara and Chui Yi (2016). The study findings excavates that the availability behavioural bias is also not present in our investors. This result also shows similarity with the evaluation Luong and Thu Ha (2011), Nofsingera and Varmab (2013) and Bakara and Chui Yi (2016). If we see further for the result of the Mental Accounting cognitive bias, it does not surpass the acceptable range of significance, so the analyst or financial planning managers will feel free about impact on the decision making while making portfolio. However, it does not align with the Greenblatt and Han (2005), research on momentum effect due to mental accounting. For the sixth bias we found from the study that investors show no sign on anchoring while taking investment decision clearly not same result as found in the research of Luu (2014). We can see from the results that the gambler's fallacy has an impact on the investors decision making. In a study conducted on Bombay stock exchange, Rakesh (2013) stated that gambler's fallacy has a significant role on investment decisions of Indian shareholders. Arif and Bhuiya (2016) concluded that gambler's fallacy plays a moderate role in the decision making process of Bangladeshi shareholders. Another study showed that young investors of Malang are greatly influenced by gambler's fallacy (Wijayanti et al., 2019). Jain et al. (2022) established that overconfidence bias and gamblers' fallacy have a positive impact on investor's investment decision. The investors will not force or influence the analyst or investment managers to take chances based on minimal calculations. The study will help the investors, policymakers, and academics to gain a competent understanding about behavioural psychology as well as the relation between finance and psychology. This also facilitates the investors and policy makers to develop efficient investment strategy. This

paper can help the stock market regulators and policy makers about the situation of the biases in investment decision making by the investors of Bangladesh, in future if the impact factor changes of some biases, they can mitigate the change by further study and implementing necessary policies. Investors, decision-makers, and scholars can all benefit from the study's useful practical consequences. Overconfidence, conservatism, herding, availability, mental accounting, anchoring, and gambler's fallacy biases can be understood to assist investors manage risk, make better decisions, and stay away from frequent mistakes. Interventions can be created by policymakers to lessen negative consequences, increase market effectiveness, and safeguard investors. Academics can make a difference by enhancing investor education, creating behavioural finance curricula, and improving investing models. In the end, our research equips interested parties with knowledge to enhance investment strategies, create efficient policies, and advance behavioural finance.

7 Conclusions

Stock market of Bangladesh is performing a significant role in the overall economy of Bangladesh with a good ROI which motivate the investors to invest a mentionable amount. While taking investment decisions, investors are not always so logical. Different psychological traits also affect their investment decisions. The aim of this paper was to examine the impact of behavioural biases on investors' investing decisions using seven variables: overconfidence, conservatism, herding, availability, mental accounting, anchoring and gambler's fallacy. The results indicates that only overconfidence and the gambler's fallacy have significant impact on the Bangladeshi investors' decision-making process and other variables have negligible impact. We believe that the findings will help the respective people to take effective and efficient decisions regarding stock market investment.

8 Theoretical implication

Our proposed model showed the relationship between the behavioural biases and investors' investment decisions on the basis of Bangladesh stock exchange. No study is available in this issue focusing on all the biases, i.e., overconfidence, conservatism, herding, availability, mental accounting, anchoring and gambler's fallacy. hence, the proposed study has put an effort to fill that discussed gap. The model that has been proposed in this study, will be an addition to the existing literature of investors' investment decision making processes.

9 Managerial implications

The findings of our paper have an extensive managerial implication. According to the analysis, availability, mental accounting, anchoring, conservatism and herding do not have any direct impact on investment decisions. on the other hand, overconfidence and Gambler's fallacy, have significant impact on investors investment decision. So, now the investors can be very careful about the two significant biased factors (overconfidence and

gambler's fallacy). While, the other factors need a comfortable concern. These findings can help the investors to take effective decision which can be a very profitable deal for them.

10 Limitations and future research

Though the study tried to evaluate the impact of behavioural biases on investors' investment decisions, there exists some limitations. The respondents who took part in the survey, were only 147 in number. If the number of respondents could have been increased, the result could be more validated or justified. Also, the paper has not used any mediating or moderating variable. Whereas, many other effective mediating or moderating factors can be introduced in future research. The findings of the study are based on a tiny portion of DSE investors on some particular days. This practice will not permit to understand the whole multifaceted decision-making behaviour of individual investors. So here comes the scope of an elaborate further study.

References

- Adeyeye, P.O., Aluko, O.A. and Migiro, S.O. (2018) 'The global financial crisis and stock price behaviour: time evidence from Nigeria', *Global Business and Economics Review*, Vol. 20, No. 3, pp.373–387.
- Arif, K.M. and Bhuiya, M.A.H. (2016) 'Capital market investors' attitudes in Bangladesh: evidence and policy implications', *International Journal of Economics, Finance and Management Sciences*, Vol. 4, No. 6, pp.344–348.
- Babajide, A.A. and Adetiloye, K.A. (2012) 'Investors' behavioural biases and the security market: an empirical study of the Nigerian security market', *Accounting and Finance Research*, Vol. 1, No. 1, pp.219–229.
- Bakara, S. and Chui Yi, A.N. (2016) 'The impact of psychological factors on investors' decision making in Malaysian stock market: a case of Klang Valley and Pahang', *Procedia Economics*.
- Bashir, T., Azam, N., Butt, A.A., Javed, A. and Tanvir, A. (2013a) 'Are behavioural biases influenced by demographic characteristics and personality traits? Evidence from Pakistan', *European Scientific Journal*, Vol. 9, No. 29, pp.277–293.
- Bashir, T., Rasheed, S., Raftar, S., Fatima, S. and Maqsood, S. (2013b) 'Impact of behavioral biases on investor decision making: Male vs female', *Journal of Business and Management*, Vol. 10, No. 3, pp.60–68.
- Chaudhary, A.K. (2013) 'Impact of behavioral finance in investment decisions and strategies—a fresh approach', *International Journal of Management Research and Business Strategy*, Vol. 2, No. 2, pp.85–92.
- Chu, C-C., Tsai, S-B., Chen, Y., Li, X., Zhai, Y., Chen, Q. et al. (2017) 'An empirical study on the relationship between investor protection, government behavior, and financial development', *Sustainability*, Vol. 9, No. 12, pp.2199.
- Gervais, S. and Odean, T. (2001) 'Learning to be overconfident', *Review of Financial Study*, Vol. 14, No. 1, pp.1–27.
- Greenblatt, M. and Han, B. (2005) 'Prospect theory, mental accounting and momentum', *Journal of Financial Economics*, Vol. 78, No. 2, pp.311–339.
- Hu, L.T. and Bentler, P.M. (1990) 'Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives', *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6, No. 1, pp.1–55.

- Jagongo, A. and Mutswenje, V.S. (2014) 'A survey of the factors influencing investment decision: the case of individual investors at the NSE', *International Journal of Humanities and Social Science*, Vol. 4, No. 4, pp.92–102.
- Jain, J., Walia, N., Kaur, M. and Singh, S. (2022) 'Behavioural biases affecting investors' decision-making process: a scale development approach', *Management Research Review*, Vol. 45, No. 8, pp.1079–1098.
- Kahneman, D. and Tversky, A. (1979) 'Prospect theory: an analysis of decision under risk', *Econometrica*, Vol. 47, No. 2, pp.263–292.
- Kapoor, S. and Prosad, J.M. (2017) 'Behavioural finance: a review', *Procedia Computer Science*, Vol. 122, pp.50–54.
- Kengatharan, L. and Kengatharan, N. (2014) 'The influence of behavioural factors in making investment decisions and performance: study on investors of Colombo stock exchange', *Asian Journal of Finance and Accounting*, Vol. 6, No. 1, pp.1–23.
- Larrick, R.P., Burson, K.A. and Soll, J.B. (2007) 'Social comparison and confidence; when thinking you're better than average predicts overconfidence (and when it does not)', *Organ. Behav. Hum. Procc.*, Vol. 102, No. 1, pp.76–93.
- Lerskullawat, P. and Ungphakorn, T. (2018) 'Does overreaction still exist in Thailand?', *Kasetsart Journal of Social Sciences*, Vol. 40, No. 3, pp.689–694.
- Lim, L.C. (2012) 'The relationship between psychological biases and the decision making of investor in Malaysian share market', *Unpublished Paper International Conference on Management. Economics and Finance (ICMEF 2012) Proceeding*.
- Luong, L.P. and Thu Ha, D.T. (2011) *Behavioural Factors Influencing Individual Investors' Decision-Making and Performance a Survey at the Ho Chi Minh Stock Exchange*, Unpublished M.Sc. Thesis, Umea School of Business.
- Luu, T. (2014) 'Behavior pattern of individual investors in stock market', *International Journal of Business and Management*, Vol. 9, No. 1, pp.1–16.
- Nofsingera, J.R. and Varmab, A. (2013) 'Availability, recency and sophistication in the repurchasing behavior of retail investors', *Journal of Banking and Finance*, Vol. 37, No. 7, pp.2572–2585.
- Nunnally, J.C. and Bernstein, I.H. (1994) 'The assessment of reliability', *Psychometric Theory*, Vol. 3, pp.248–292.
- Orléan, A. (2011) 'Comprendre les foules spéculatives: mimétisme informationnel, autoréférentiel et normatif. Crises financières', *Economica*, Paris, Vol. 4, No. 1, p.105.
- Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y. and Podsakoff, N.P. (2003) 'Common method biases in behavioral research: a critical review of the literature and recommended remedies', *Journal of Applied Psychology*, Vol. 88, No. 5, pp.879–903.
- Pourbijan, F., Setayesh, M.R. and Janani, M.H. (2014) 'Assessing impacts of investors' overconfidence bias on investment in Tehran stock exchange market', *International Journal of Research in Management*, Vol. 4, No. 4, pp.1–10.
- Qadri, S. and Shabbir, M. (2014) 'An empirical study of overconfidence and illusion of control biases, impact on investor's decision making: an evidence from ISE', *European Journal of Business and Management*, Vol. 6, No. 14, pp.38–44.
- Rakesh, H.M. (2013) 'Gambler's fallacy and behavioural finance in the financial markets: a case study of Bombay stock exchange', *International Journal of Business and Management Invention ISSN (Online)*, Vol. 2, No. 12, pp.2319–8028.
- Rehan, R. and Umer, I. (2017) 'Behavioural biases and investment decisions', *Market Forces, College of Management Sciences*, Vol. 12, No. 2, pp.12–20.
- Schreiber, J.B., Nora, A., Stage, F.K., Barlow, E.A. and King, J. (2006) 'Reporting structural equation modeling and confirmatory factor analysis results: a review', *The Journal of Educational Research*, Vol. 99, No. 6, pp.323–338.
- Shiller, R.J. (1999) *Human Behavior and the Efficiency of the Financial System*, Amsterdam, Unpublished.

- Shin, H. and Park, S. (2018) 'Do foreign investors mitigate anchoring bias in stock market? Evidence based on post-earnings announcement drift', *Pacific- Basin Finance Journal*, Vol. 48, No. 2, pp.224–240.
- Taborda, C.T., Deemen, A.V., Rodriguez, Y. and González, J.M.G. (2019) 'Overconfidence and disposition effect in the stock market: a micro world based setting', *Journal of Behavioral and Experimental Finance*, Vol. 21, No. 1, pp.61–69.
- Thaler, R. (1985) 'Mental accounting and consumer choice', *Marketing Science*, Vol. 4, No. 3, pp.199–214.
- Tripathy, C.K. (2014) 'Role of psychological biases in the cognitive decision-making process of individual investors', *Orissa Journal of Commerce*, Vol. 34, No. 1, pp.69–80.
- Wijayanti, D., Suganda, T.R., Thewelis, F.S. (2019) 'Gambler's fallacy as behavioural bias of young investor', *Journal of Business and Behavioural Entrepreneurship*, Vol. 3, No. 2, pp.72–80.