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ABSTRACT

Purpose: The purpose of this research is to examine the information processing strategies' influence on the financial satisfaction of investors. This research also investigates the mediating influence of financial opportunities.

Design/Methodology/Approach: The proposed model's relationship is examined using mixed methodology. Qualitative data is gathered by using in-depth interviews. While quantitative data is collected through questionnaires.

Findings: This study's results explain that financial opportunities significantly mediate the relationship. Further, information processing strategies have a significant influence on financial opportunities. This unique study contributed to the literature and developed a financial opportunity scale.

Implications/Originality/Value: This study suggested that understanding and knowledge of financial opportunities would help to increase the financial decisions of investors. This research also highlights implications and limitations to investors and practitioners.

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Introduction

Financial decision-making is a major element of financial management. Financial investment in the stock market is essential for investors and managers to choose the best stock option (Sood, Pathak, Jain, & Gupta, 2023). Good financial decision-making tends to good financial management. So, financial satisfaction is an important indicator that determines the individual financial situation (D'Agostino, Rosciano, & Starita, 2021; Panjaitan, Renaldo, & Suyono, 2022).
Nowadays, individuals have a major responsibility for managing their finances (Lusardi, 2019). Because financial decisions are very complicated due to the dynamic environment and technological changes in financial markets (Abdeldayem & Aldulaimi, 2023; Lusardi, 2019). This growth in complex decisions creates contradictory information processing strategies. Information processing strategies are exhibited through heuristics and behavioral biases (Lovric, Kaymak, & Spronk, 2008; Prast, 2004; Sjöberg & Engelberg, 2009).

Heuristics and cognitive biases help to choose the appropriate stock option. This guides individuals for the best decisions and to achieve their financial objectives. This study determined the active information processing strategies. This type of strategy is used for regular purchase and sale of items. It required maximum time and cost for transactions. In active strategies, individuals select the stocks deliberately (Grossman & Stiglitz, 1980; Keim & Madhavan, 1995; Wermers & Yao, 2010). Further, active strategy is divided into the following: representativeness bias and availability bias. Correct stock selection leads to maximum financial satisfaction.

Financial literacy is an important element for economic development (Oppong, Salifu Atchulo, Akwaa-Sekyi, Grant, & Kpegba, 2023) and it has a major influence on financial services (Leeladhar, 2006). It creates financial happiness, knowledge, and awareness. Past studies examined financial literacy by financial attitude, behavior, and knowledge. While it is also determined by basic or advanced, objective and subjective financial literacy (Noh, 2022; Potocki & Cierpial-Wolan, 2019; Tomar, Baker, Kumar, & Hoffmann, 2021; Yanto, Ismail, Kiswanto, Rahim, & Baroroh, 2021). So, the current study employs financial opportunity for financial decision-making. Whereas, financial opportunity is concerned with investment in the stock market. A well-educated investor can plan better and select the best investment opportunities. Moreover, it indicates financial optimism, financial information, and preferences to accomplish desired outcomes.

The findings of the current study stated that behavioral biases have a significant influence on the financial satisfaction of investors. Whereas, financial opportunity also mediated the relationship between active information processing strategies and the financial satisfaction of investors. This research contributed to the literature in different ways. First, this is the first study, to identify the information processing strategy known as active strategy. In active strategies, representativeness bias and availability bias are used to determine the information source of the individual. Second, this research examined the mediating influence of financial opportunity that how an investor used his information to choose the best stock option. Further, the paper is organized into different sections. Section 2 started with the literature review and hypothesis development of the study. Section 3 explained the methodology, section 4 presented data analysis and findings. Section 5 concluded this research and also provided the limitations and future directions of the study.

**Literature Review and Hypothesis Development**

Behavioral finance is the field of finance which secured more attention since the 1980s. Behavioral finance is argued with traditional finance. Because traditional finance states that investors are rational and markets are efficient. Prospect theory proposed by (Kahneman & Tversky, 2013) describes that investor takes decisions that involve risks and outcomes that are predictable. The heuristics theory states that individuals make quick decisions under uncertainty (Kahneman, Slovic, & Tversky, 1982).

The human brain has a limited ability to process information and this limited ability simplifies financial decision-making (Yoshinaga & Ramalho, 2014). Multiple past studies determine the impact of behavioral biases and investment decisions making (Gupta & Shrivastava, 2022; Kumar & Goyal, 2016; Parveen et al., 2023; Suresh, 2021; Zahera & Bansal, 2018). So, this research mainly targets active information processing strategies. This strategy consists of
representativeness bias and availability bias impact on the financial satisfaction of investors. Moreover, the current study used financial opportunity for financial decision-making. Opportunities are used to create more skills and knowledge for the future. Moreover, financial opportunities reduce the financial anxiety, uncertainty and misbehavior of investors. Financial opportunity is also referred to as financial knowledge. Individuals who have more knowledge and information about the stock market can make the best financial decisions and achieve the maximum return on investment (Hastings, Madrian, & Skimmyhorn, 2012). Financial opportunity is concerned with the chances of investment. Financial opportunity is a way to increase financial growth and wealth, and advancement in financial decisions. It provides a broader range of activities, strategies, and information about stock market investment.

Representativeness Bias and Financial Opportunity
Representativeness bias is described as a tendency to make financial decisions on the base of past experiences, knowledge and stereotypes. This bias is referred to as overreacting to information-processing strategies and financial decision-making processes (I. Khan, Afeef, Jan, & Ihsan, 2021; Willows & Richards, 2023). This bias edges to an inaccurate conclusion because it only emphasizes simple and recognizable events. While all other factors and information are not taken into consideration. Investors predict future outcomes on the base of past events. This bias causes people to make financial decisions according to the current company's reputation, financial position, management situation price earnings ratio etc. They choose hot stock and estimate future outcomes by using past information (Guo, McAleer, Wong, & Zhu, 2017; Toma, 2015). There is a huge literature available on representativeness bias and investment decisions (Bashir, Arshad, Nazir, & Afzal, 2013; Kasoga, 2021; Kishor, 2022; Parveen, Satti, Subhan, & Jamil, 2020). This bias leads to an overreaction in stock prices and the behavior of investors (Kartini & NAHDA, 2021; Talwar, Talwar, Tarjanne, & Dhir, 2021). However, this study determines representativeness bias influence on financial opportunity. This bias has a significant impact on the financial opportunities of the stock market. In this bias, individual investors follow current market analysis and trends. An investor invests by comparing all other investment opportunities. This leads to investing in that stock which provides maximum monetary rewards. So, it is stated that:

H1: There is a significant positive influence of representativeness bias on financial opportunity.

Availability Bias and Financial Opportunity
The availability bias played a key role to observe and understand the phenomena of stock markets, where stock prices are overreacted due to positive and negative news (Pompian, 2012). Investors focus on the short-term context and eliminate the long-term perspective. They are inclined to take more risk following a gain. On the other hand, they tend to be more risk-averse following a loss (Mittal, 2022). Past research showed that investors feel more satisfied and more confident when they have the best information (Shah, Ahmad, & Mahmood, 2018; Wang, Rodan, Fruin, & Xu, 2014). However, this research examined availability bias's influence on financial opportunity. This bias is concerned with individual decision-making based on available information rather than deciding by collecting all the facts and figures. So, it is concluded that:

H2: There is a significant positive influence of availability bias on financial opportunity.

Financial Opportunity and Financial Satisfaction
Financial opportunities are the chances, options and preferences of financial investment. Financial literacy is associated with traditional theories and it is stated investors have rational behavior. A financially literate investor uses rational behavior to achieve maximum utility as per risk preferences (Baker & Ricciardi, 2014; Sahi, 2017). Investors make optimal financial decisions and gain the highest financial satisfaction (Xiao & O'Neill, 2018; Xiao & Porto, 2017). Financial literacy is also associated with the financial satisfaction of investors but no study explored the linkage with financial opportunity. However, this research determined the mediating
impact of financial opportunities and proposed the following hypothesis:
H3: There is a significant positive influence of financial opportunity on financial satisfaction.

**Mediating Act of Financial Opportunity**
Financial opportunities are also concerned with different investment opportunities and strategies to achieve financial goal and objectives. Financial opportunities can enhance the financial growth and wealth of individual investors. It has a positive impact on investor financial decisions and financial satisfaction towards the stock market. Investors' financial satisfaction is related to individual perception of financial situation. Financial literacy is relevant to financial knowledge, financial attitudes, financial concepts, interest, bonds and time value of money concepts (Grohmann, 2018; Lusardi & Mitchell, 2011). Traditional finance theories state that, investors are rational. This rationality provides them with maximum monetary benefits and leads to financial satisfaction (Baker & Ricciardi, 2014; Sahi, 2017). Financial opportunities provide multiple investment options to investors. In representativeness bias, investors make financial decisions according to their mental shortcuts and stereotypical thinking. Individuals also make decisions on the base of past experiences. So, in this study, individual invest in such opportunities that matches their mental thoughts and provide successful and satisfying investment. In availability bias, investor select the investment strategies which match their cognitive biases and have recently performed. Hence:
H4: Financial opportunity significantly positively mediates between representative bias and financial satisfaction.
H5: Financial opportunity significantly positively mediates between availability bias and financial satisfaction.

**Methodology**
The objective of this research is to examine the linkage of active strategies and financial satisfaction by mediating acts of financial opportunities (Figure 1).

![Figure 1: Conceptual framework](image)

This study applied a sequential exploratory method. In sequential exploratory research, first qualitative study and then a quantitative study was performed. In a qualitative study, nine in-depth semi-structured interviews was executed to determine financial opportunities impact. The quantitative data was gathered by questionnaires. This study used 317 final questionnaires for further analysis.

**Measurement of Variables**
The current study explores the active information processing strategies by two biases namely representativeness bias and availability bias. This research aims to examine the active strategies' impact on financial satisfaction by mediating the influence of financial opportunity. The variables
of current research are representativeness bias, availability bias, financial opportunity and financial satisfaction. A five-point scale was used to obtain the responses by investors, where 1 denoted with “strongly disagree” and 5 expressed with “strongly agree”. This research adopted the representativeness bias scale by (Baker, Kumar, & Goyal, 2021) and, availability bias scale is adapted by (Jain, Walia, & Gupta, 2020). Whereas, the financial satisfaction scale is adopted by (Damian, Negru-Subirica, Domocus, & Friedlmeier, 2020; K. A. Khan, Çera, & Pinto Alves, 2022). The mediating variable financial proficiency is measured by the scale development process. This process is explained further. Moreover, factor analysis was used to measure the linkage of items in a single factor.

**Scale Development Process**
This research has developed a scale for financial opportunity from investors' point of view. Initially, a set of items were designed for the instrument. All the items were examined by EFA and literature review support. All the items of financial opportunity were discussed with financial experts and consider their feedback. Finally, financial opportunity was measured by three items using a five-point Likert scale.

First of all, this study examined the sampling adequacy and normality of data. The KMO value is 0.717, which is greater than the 0.5 suggested by (Sarstedt, Hair Jr, Cheah, Becker, & Ringle, 2019). Bartlett's test of sphericity is also significant with p<0.001 which fulfill the assumption of EFA (Hair, Black, Babin, Anderson, & Tatham, 2006). Exploratory factor analysis results are mentioned in Table 1. The eigenvalue is more than 0.1 and factor loadings are also greater than 0.5 (Roesch & Rowley, 2005). The sample size is adequate and the data is normal.

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FO1: I get more satisfied with investing money instead of saving it.</td>
<td>0.885</td>
<td></td>
</tr>
<tr>
<td>FO2: I tend to invest in the present and anticipate more returns in future.</td>
<td>0.824</td>
<td></td>
</tr>
<tr>
<td>FO3: I am comparing alternative securities before making a decision.</td>
<td>0.793</td>
<td></td>
</tr>
<tr>
<td>FS1: I am content with my financial situation.</td>
<td>0.823</td>
<td></td>
</tr>
<tr>
<td>FS2: I am content with my investing status.</td>
<td>0.802</td>
<td></td>
</tr>
<tr>
<td>FS3: I am content with retained money.</td>
<td>0.793</td>
<td></td>
</tr>
</tbody>
</table>

**Results and Discussion**
The objective of the current study is to examine the behavioral biases' impact on investors' financial satisfaction by mediating the influence of financial opportunity. This study applied structural equation modelling (SEM) to test the hypothesis. Analysis was performed by using the SmartPLS4 software package. This research first performed exploratory factor analysis. Then, confirmatory factor analysis (CFA) to check the reliability, validity (Anderson & Gerbing, 1988) and model fitness. Model fitness was examined by using factor loadings, and convergent and discriminant validity. Finally, structural model assessment was estimated and hypotheses were tested by bootstrapping techniques.
Reliability and Validity of Model
Cronbach’s alpha and composite reliability are used to assess the reliability and internal consistency of all variables. The cut-off value of Cronbach’s alpha and composite reliability of any scale must be greater than 0.7 (Fornell & Larcker, 1981; Malhotra & Dash, 2016). So, in this study, all construct values are greater than a threshold value. All the results of reliability and factor loadings are given in Table 2. The construct validity is examined by convergent validity and discriminant validity.

Convergent Validity
It is examined by factor loadings, composite reliability and AVE (Campbell & Fiske, 1959). The factor loadings of each construct are more than 0.7 (Kline, 2011). The composite reliability is greater than 0.6 (Bagozzi & Yi, 1988). Further, the AVE value of each construct is more than 0.5 (Fornell & Larcker, 1981). These results showed that convergent validity is achieved (Table 2).

### Table 2: Reliability and Convergent Validity

<table>
<thead>
<tr>
<th>Construct</th>
<th>Indicator</th>
<th>Loadings</th>
<th>Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability Bias</td>
<td>AVA1</td>
<td>0.84</td>
<td>0.81</td>
<td>0.88</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>AVA2</td>
<td>0.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AVA3</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Opportunity</td>
<td>FOP1</td>
<td>0.75</td>
<td>0.73</td>
<td>0.85</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>FOP2</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FOP3</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Satisfaction</td>
<td>FSF1</td>
<td>0.84</td>
<td>0.76</td>
<td>0.86</td>
<td>0.67</td>
</tr>
<tr>
<td></td>
<td>FSF2</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FSF3</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representativeness Bias</td>
<td>REP1</td>
<td>0.84</td>
<td>0.85</td>
<td>0.91</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>REP2</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REP3</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discriminant Validity
The discriminant validity of the current study is assessed by criteria (Fornell & Larcker, 1981). This discriminant validity of the current model is satisfactory because the square root of the AVE value is greater than the correlation of that construct with other measures in the model (Table 3). Further, there is no multicollinearity issue because the VIF value is less than 10 (Hair et al., 2006).

### Table 3: Discriminant Validity

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVA</td>
<td>1.2315</td>
<td>0.8472</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOP</td>
<td>1.0001</td>
<td>0.2848</td>
<td>0.8083</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSF</td>
<td>1.0000</td>
<td>0.2185</td>
<td>0.3635</td>
<td>0.8203</td>
<td></td>
</tr>
<tr>
<td>REP</td>
<td>1.2315</td>
<td>0.4336</td>
<td>0.4579</td>
<td>0.2911</td>
<td>0.8744</td>
</tr>
</tbody>
</table>

Structural Model Evaluation
After achieving the model reliability, convergent validity and discriminant validity, the next step is to determine the structural model evaluation by bootstrapping technique. The current study measured the significance of parameters by SEM technique. The $R^2$ value of the current study is 0.2188. This explains the total variance of the model is 21%. The results of this research stated that individual investors using active information processing strategies can achieve and
maintained effective performance of investment. They get maximum return and maximum financial benefits. Representativeness bias has a significant influence on financial opportunities. So, H1 is accepted. It is explained that investors using representativeness bias have more financial awareness and optimism about financial decisions. This bias creates more investment opportunities for investors on the base of past experiences. Availability bias has a significant impact on financial opportunities. Therefore, H2 is accepted. The findings revealed that investors feel more comfortable investing in readily available stocks. Financial opportunities also have a significant positive impact on financial satisfaction and support H3. Financial opportunities create a more favorable environment for investors to gain maximum return. Financial opportunities help investors increase financial satisfaction and reduce reliance on others, minimize uncertainty. It contributed to the financial and emotional well-being of investors. To determine the mediation effect, financial opportunities significantly positively mediate with representativeness bias and financial satisfaction. It creates financial opportunities that lead to successful investment. It can boost financial confidence about opportunities. These findings support H4. Financial opportunities also significantly positively mediate the relationship between availability bias and the financial satisfaction of individual investors. It increases the consistency of financial decisions. Investors choose stock according to recent available information. Thus, it supported H5.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>T Statistics</th>
<th>P Values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: REP -&gt; FOP</td>
<td>0.4135</td>
<td>0.0600</td>
<td>6.8670</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: AVA -&gt; FOP</td>
<td>0.1096</td>
<td>0.0564</td>
<td>1.8848</td>
<td>0.0595</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: FOP -&gt; FSF</td>
<td>0.3675</td>
<td>0.0595</td>
<td>6.1073</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: REP -&gt; FOP -&gt; FSF</td>
<td>0.1525</td>
<td>0.0356</td>
<td>4.2017</td>
<td>0.0000</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: AVA -&gt; FOP -&gt; FSF</td>
<td>0.0405</td>
<td>0.0223</td>
<td>1.7274</td>
<td>0.0842</td>
<td>Supported</td>
</tr>
</tbody>
</table>

**Note:** REP = representativeness bias, AVA = availability bias, FOP = financial opportunity, FSF = financial satisfaction.

### Conclusion
The objective of the current study is to examine the mediating influence of financial opportunity on the relationship between information processing strategy and the financial satisfaction of individual investors of the stock market. This study used an exploratory research method. The qualitative data of the current study is collected by conducting semi-structured interviews. This study conducted nine in-depth interviews with individual investors in the stock market. The quantitative data of this research is collected through questionnaires. Because the questionnaire technique is cost-effective and requires less time. Total number of questionnaires used in this research was 317. This is the first study to develop a scale for financial opportunities. In the literature, many studies have examined financial literacy through financial attitudes, behavior and financial knowledge. However current research examined extensive elements of financial literacy known as financial opportunity.

The significance of the hypothesis was measured by using SEM techniques. Overall findings stated that active information processing strategies have a significant positive influence on financial opportunities. It creates more opportunities for investors to invest in the stock market. This study also checked the mediating impact of financial opportunities on the financial satisfaction of individual investors of the stock market. So, financial opportunity significantly mediates the relationship between representativeness bias and availability bias with financial satisfaction. Finding support for all concerned hypotheses and contributing to the literature review.
The evidence of this research highlights the importance of active information processing strategies and the financial satisfaction of individual investors. This study also shed the importance of financial opportunities for optimal financial decision-making. The results of this study are also important for investors, researchers, financial advisors and policymakers to give more attention to financial literacy. Investors must have financial understanding and knowledge to choose the maximum beneficial opportunity for trading. This research also has some limitations. This study only used active information processing strategies. This research is only limited to individual investors' perspectives. Future research could investigate other information processing strategies such as passive or behavioral strategies. Researchers could also determine the influence of risk preferences, emotions and anomalies. Further, researchers can undertake the moderating impact of financial planning and financial experiences.

References


Wermers, R., & Yao, T. (2010). Active vs. passive investing and the efficiency of individual stock prices. *Unpublished paper, University of Iowa and University of Maryland (May).*


