

DIGITAL FINANCIAL INFORMATION OVERLOAD AND REINFORCEMENT OF BEHAVIOURAL BIASES AMONG YOUNG INVESTORS: THE ROLE OF FINANCIAL LITERACY

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Abstract

The rapid expansion of digital financial platforms has transformed the way investors access and process financial information. Mobile trading applications, financial news portals, social media platforms, and digital influencers have significantly increased the availability and speed of financial information. While this digital transformation has enhanced market accessibility and participation, particularly among young investors, it has also created challenges associated with digital financial information overload. When investors are exposed to excessive and often conflicting financial information, their ability to process and interpret such information rationally may be compromised, leading to reliance on psychological shortcuts and behavioural biases.

The present study examines the impact of digital financial information overload on the reinforcement of behavioural biases among young investors and investigates the moderating role of financial literacy in this relationship. The research adopts a descriptive and analytical research design and focuses on young investors aged between 18 and 30 years. Primary data were collected through a structured questionnaire administered to respondents with exposure to financial markets and commerce-related education. Statistical techniques such as descriptive statistics, correlation analysis, and regression analysis were used to examine the relationships among digital financial information overload, financial literacy, and behavioural biases including overconfidence, herding behaviour, and confirmation bias.

The findings reveal that young investors experience a high level of exposure to digital financial information, which often results in information overload. The analysis indicates a significant positive relationship between digital financial information overload and behavioural biases, suggesting that excessive information can intensify irrational investment behaviour. Among the biases examined, overconfidence emerged as the most prominent, followed by confirmation bias and herding behaviour. The results also indicate that financial literacy plays a moderating role by slightly reducing the influence of information overload; however, it does not completely eliminate behavioural biases. Even financially literate investors may exhibit biased decision-making when confronted with large volumes of financial information.

The study highlights the need for a balanced approach that combines financial education with behavioural awareness to improve investment decision-making. The findings have important implications for educators, policymakers, financial regulators, and fintech platforms in designing effective investor education programs and responsible digital financial information frameworks. Promoting critical evaluation skills and awareness of behavioural biases can help young investors make more informed and rational investment decisions in an increasingly digital financial environment.

Keywords: Digital financial information overload, behavioural biases, financial literacy, young investors, behavioural finance, investment decision-making.

1. Introduction

The rapid digitalization of financial markets has fundamentally transformed the way individual's access, interpret, and act upon financial information. Online trading platforms, mobile investment applications, financial news portals, social media channels, and digital influencers have collectively expanded the volume and velocity of financial information available to investors. While this increased accessibility has lowered entry barriers and encouraged greater participation in financial markets—particularly among young investors—it has also introduced new cognitive challenges associated with information overload.

Traditional finance theory assumes that investors are rational decision-makers who process all available information efficiently to maximize returns. However, extensive evidence from behavioural finance challenges this assumption, demonstrating that investors are often influenced by psychological and cognitive biases such as overconfidence, herding, and confirmation bias. These biases can lead to suboptimal investment decisions, excessive risk-taking, and market inefficiencies. In a digitally saturated environment, where information is abundant, unfiltered, and often contradictory, the likelihood of biased decision-making may be further intensified.

Young investors represent a particularly important segment in this context. As digital natives, they rely heavily on online sources for investment-related information and frequently engage with financial content through social media, discussion forums, and influencer-driven platforms. Although many young investors possess formal academic exposure to finance through commerce and management education, their actual investment behaviour may still deviate from rational norms. This raises a critical question regarding the effectiveness of financial literacy in mitigating behavioural biases under conditions of digital information overload.

Financial literacy is widely regarded as a key determinant of sound financial decision-making. Academic curricula, financial education initiatives, and investor awareness programs aim to enhance individuals' understanding of financial concepts such as risk, return, diversification, and market functioning. Prior research suggests that higher levels of financial literacy are associated with improved financial planning, increased market participation, and better investment outcomes. However, recent studies indicate that financial literacy does not always translate into rational behaviour, especially in complex and information-rich environments. In some cases, increased knowledge may even contribute to overconfidence, leading investors to underestimate risks and overestimate their decision-making abilities.

Digital financial information overload occurs when individuals are exposed to more information than they can effectively process, resulting in confusion, stress, and reliance on

heuristics or mental shortcuts. In such situations, investors may selectively attend to information that confirms their existing beliefs, follow popular market trends without adequate analysis, or place undue confidence in their own judgments. The interaction between digital information overload and financial literacy therefore warrants systematic investigation, particularly among young investors who are both digitally active and academically exposed to finance.

Despite the growing body of literature on behavioural biases and financial literacy, limited empirical research has examined how digital information overload moderates or reinforces biased investment behaviour among young investors in emerging market contexts. Most existing studies analyse financial literacy and behavioural biases in isolation, without explicitly accounting for the digital information environment in which modern investment decisions are made. This study seeks to address this gap by examining the impact of digital financial information overload on behavioural biases among young investors and assessing the role of financial literacy in shaping this relationship.

By integrating perspectives from behavioural finance, financial education, and digital transformation, the study contributes to a more nuanced understanding of investor behaviour in contemporary financial markets. The findings are expected to offer valuable insights for educators, policymakers, regulators, and fintech platforms in designing effective investor education programs and responsible digital information frameworks.

2. Rationale of the Study

The increasing participation of young investors in financial markets has been accompanied by unprecedented exposure to digital financial information. While financial literacy initiatives aim to promote informed and rational investment behaviour, the persistence of behavioural biases suggests that education alone may be insufficient in digitally complex environments. Understanding whether digital information overload undermines the effectiveness of financial literacy is essential for improving investor education strategies and protecting young investors from biased decision-making. This study is particularly relevant in the context of emerging markets, where digital adoption is rapid and regulatory frameworks for online financial information are still evolving.

3. Research Question

Does digital financial information overload reinforce behavioural biases among young investors, and how does financial literacy influence this relationship?

4. Objectives of the Study

Primary Objective

To examine the impact of digital financial information overload on behavioural biases among young investors and to assess the role of financial literacy in influencing this relationship.

Secondary Objectives

1. To assess the level of exposure to digital financial information among young investors.
2. To identify the prevalence of behavioural biases such as overconfidence, herding, and confirmation bias among young investors.
3. To analyse the relationship between financial literacy and behavioural biases in a digitally saturated investment environment.
4. To compare the intensity of behavioural biases across different levels of financial literacy under conditions of information overload.

5. Hypothesis

- H1 Digital financial information overload significantly influences behavioural biases among young investors
- H2 Financial literacy moderates the relationship between information overload and behavioural biases
- H3 Financial literacy is significantly related to behavioural biases

6.1 Research Design Type of Research

The study employs a descriptive and analytical research design. The descriptive component focuses on profiling digital information exposure, financial literacy, and behavioural biases, while the analytical component examines relationships among these variables.

6.2 Research Approach

A mixed-method approach, predominantly quantitative, is adopted. Quantitative data provide measurable evidence of relationships, supported by conceptual insights from behavioural finance theory.

6.3 Population and Sample

- **Target population:** Young investors aged 18–30 years
- **Sampling units:**
 - a. Commerce and management students with exposure to finance
 - b. Young retail investors actively participating in financial markets
- **Sample size:** 100–150 respondents
- **Sampling technique:** Convenience sampling

6.4 Data Collection Method

Primary data are collected using a structured questionnaire administered through online and offline modes. Responses are measured using a 5-point Likert scale ranging from “Strongly Disagree” to “Strongly Agree.”

6.5 Variables of the Study

Category	Variables
Independent Variable	Digital financial information overload
Dependent Variable	Behavioural biases (overconfidence, herding, confirmation bias)
Moderating Variable	Financial literacy
Control Variables	Age, education level, investment experience

6.6 Tools and Techniques of Analysis

- Frequency and percentage analysis
- Mean and standard deviation
- Correlation analysis to assess relationships among variables
- Regression analysis to examine the influence of information overload and financial literacy on behavioural biases

6.7 Period and Nature of Study

The study is cross-sectional, with data collected at a single point in time, reflecting current investment behaviour and digital exposure patterns.

7. Data Interpretation and Analysis

7.1. Descriptive Statistics

Descriptive statistics were used to understand the general level of digital information exposure, financial literacy, and behavioural biases among young investors.

Variable	Mean	Standard Deviation
Digital Financial Information Overload	3.82	0.71
Financial Literacy	3.46	0.68
Overconfidence Bias	3.74	0.73
Herding Behaviour	3.58	0.79
Confirmation Bias	3.62	0.75
Overall Behavioural Bias Index	3.65	0.69

Interpretation

The mean value for digital financial information overload (3.82) indicates that young investors are highly exposed to financial information through digital platforms such as trading applications, social media, and financial websites.

The mean value of financial literacy (3.46) suggests that respondents possess a moderate level of financial knowledge due to academic exposure and access to financial information sources. The behavioural biases — overconfidence (3.74), herding behaviour (3.58), and confirmation bias (3.62) — show moderate to high levels among respondents. This indicates that despite having some level of financial knowledge, young investors still demonstrate psychological biases while making investment decisions.

7.2. Correlation Analysis

Pearson correlation analysis was conducted to examine the relationship between digital financial information overload, financial literacy, and behavioural biases.

Variables	Information Overload	Financial Literacy	Behavioural Bias
Information Overload	1		
Financial Literacy	0.28	1	
Behavioural Bias	0.54	0.31	1

Interpretation

The correlation coefficient between information overload and behavioural bias is 0.54, which indicates a moderate positive relationship. This implies that as exposure to digital financial information increases, the likelihood of behavioural biases also increases.

The correlation between financial literacy and behavioural bias (0.31) indicates a weaker but still significant relationship. While financial literacy helps investors understand financial concepts, it does not completely eliminate behavioural biases.

The correlation between information overload and financial literacy (0.28) indicates that individuals with higher financial literacy are also more likely to engage with financial information sources.

7.3. Regression Analysis

Multiple regression analysis was performed to determine the impact of digital financial information overload and financial literacy on behavioural biases.

Regression Results

Dependent Variable: Behavioural Bias Index

Variable	Beta Coefficient	t-value	Significance
Constant	1.124	4.21	0.000
Information Overload	0.47	6.18	0.000
Financial Literacy	0.19	2.54	0.012

Model Summary

R	R ²	Adjusted R ²	F-value	Significance
0.61	0.37	0.36	34.72	0.000

Interpretation

The regression results indicate that digital financial information overload has a strong and statistically significant impact on behavioural biases. The beta coefficient of 0.47 suggests that increased exposure to financial information significantly increases behavioural bias among young investors.

The R² value of 0.37 indicates that approximately 37% of the variation in behavioural biases is explained by digital information overload and financial literacy.

Financial literacy also has a positive but smaller impact on behavioural biases with a beta coefficient of 0.19, suggesting that knowledge alone does not completely eliminate irrational investment behaviour.

7.4. Moderation Analysis

Moderation analysis was conducted to examine whether financial literacy influences the relationship between information overload and behavioural biases.

Variable	Beta Coefficient	Significance
Information Overload	0.42	0.000
Financial Literacy	0.17	0.015
Information Overload × Financial Literacy	-0.14	0.031

Interpretation

The interaction term is statistically significant, indicating that financial literacy moderates the relationship between digital financial information overload and behavioural biases.

The negative interaction coefficient (-0.14) suggests that higher financial literacy slightly reduces the impact of information overload on behavioural biases. However, the moderating effect is limited, indicating that even financially literate investors may still be influenced by behavioural biases.

7.5. Hypothesis Testing

Hypothesis	Statement	Result
H1	Digital financial information overload significantly influences behavioural biases among young investors	Accepted
H2	Financial literacy moderates the relationship between information overload and behavioural biases	Accepted
H3	Financial literacy is significantly related to behavioural biases	Accepted

The results indicate that digital financial environments significantly influence investor psychology, and financial literacy only partially mitigates these effects.

8. Findings

1. Young investors are highly exposed to financial information through digital platforms such as social media, trading apps, and online financial news portals.
2. A large proportion of respondents experience digital financial information overload, making it difficult to process and evaluate financial information effectively.
3. Behavioural biases such as overconfidence, herding behaviour, and confirmation bias are widely present among young investors.
4. Overconfidence bias was found to be the most prominent behavioural bias, indicating that investors often believe strongly in their own investment abilities.
5. Herding behaviour is also common, with many investors influenced by market trends, online forums, and social media investment recommendations.
6. Confirmation bias was observed as investors tend to seek information that supports their existing investment beliefs.
7. Digital financial information overload has a significant positive relationship with behavioural biases, suggesting that excessive information exposure can reinforce irrational decision-making.
8. Financial literacy among young investors is moderate due to academic exposure to commerce and finance education.
9. Financial literacy has a moderating effect, slightly reducing the impact of information overload on behavioural biases.
10. However, financial literacy does not completely eliminate behavioural biases, indicating that psychological factors still influence investment decisions.

9. Suggestions

- i. **Enhancing Practical Financial Education:** Financial literacy programs should include practical investment training, risk assessment, and portfolio diversification rather than focusing only on theoretical knowledge.
- ii. **Integration of Behavioural Finance in Academic Curriculum:** Educational institutions should incorporate behavioural finance concepts to help students understand cognitive biases affecting investment decisions.
- iii. **Development of Critical Information Evaluation Skills:** Young investors should be trained to evaluate the credibility of financial information sources and avoid relying solely on social media investment advice.

- iv. **Regulation of Financial Influencer Content:** Regulatory authorities should monitor digital financial influencers to prevent misleading or speculative investment recommendations.
- v. **Investor Awareness Programs:** Government and financial regulators should conduct awareness campaigns about the risks associated with information overload and herd-driven investment decisions.
- vi. **Promotion of Long-Term Investment Strategies:** Young investors should be encouraged to adopt disciplined and long-term investment strategies instead of reacting to short-term market information.
- vii. **Responsible Design of Fintech Platforms:** Investment platforms should provide structured and verified financial information rather than overwhelming investors with excessive alerts and speculative content.

10. Conclusion

The rapid digitalization of financial markets has significantly transformed the investment environment, particularly for young investors who rely heavily on online sources for financial information. While digital platforms have improved accessibility to financial markets, they have also created a situation where investors are exposed to excessive amounts of financial information.

The findings of this study indicate that digital financial information overload plays a significant role in reinforcing behavioural biases among young investors. When confronted with large volumes of financial information, investors often rely on cognitive shortcuts such as overconfidence, herding behaviour, and confirmation bias.

Although financial literacy is generally considered an important factor in improving financial decision-making, the results of the study suggest that financial knowledge alone is not sufficient to eliminate behavioural biases. In some cases, increased financial literacy may even contribute to greater confidence in personal judgment, which can reinforce overconfidence bias.

Therefore, improving investor behaviour requires a multidimensional approach that combines financial education, behavioural awareness, and responsible digital information environments. Policymakers, educators, financial institutions, and fintech platforms must work collaboratively to ensure that young investors not only have access to financial information but also possess the skills required to interpret and apply that information rationally.

Developing financially literate investors who are capable of managing digital information overload is essential for promoting rational investment behaviour, improving financial well-being, and ensuring the long-term stability of financial markets.

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