

Fear of Missing Out (FOMO) & Investment Decision: A Systematic Literature Review

Rulit Candra¹, Aisah Aisah², Nugraha Nugraha³, and Imas Purnamasari⁴

1,2,3,4 Pendidikan Ekonomi dan Bisnis, Universitas Pendidikan Indonesia rulit@upi.edu, aisah05@upi.edu, nugraha@upi.edu,

Abstract. The purpose of this systematic review article is to analyse prior studies on fear of missing out (FOMO) and investment. The data collected comes from three databases, i.e., Scopus, EBSCO Host, and Taylor & Francis, using PRISMA guidelines. The primary inclusion criteria for this systematic review were English language articles, open-access and full-text papers, and scientific journals only. This literature review explores the relationship between the fear of missing out (FOMO) and investment behaviour. The findings highlight the significant influence of FOMO on investment decisions, emphasising the importance of understanding psychological factors, emotional biases, and contextual influences in shaping investor behaviour and improving investment outcomes. To better understand the complex relationships between FOMO and investment, future research can include empirical studies, investigate other behavioural biases, explore the impact of demographic factors, conduct cross-cultural studies, and use virtual reality or real-world scenarios.

Keywords: Fear of missing out, FOMO, Investment, Finance, Financial Behavior.

1 Introduction

Behavioural finance emerged in the 1980s to understand the psychological factors influencing investor behaviour, challenging traditional finance theories. This field focuses on biases like overconfidence, loss aversion, and herding behaviour, which can lead to suboptimal investment decisions and unexplained market fluctuations.^{1,2} One such bias gaining prominence is the Fear of Missing Out (FOMO).

Originating from marketing strategies in the mid-1990s, social media has magnified FOMO, manifesting as the anxiety of exclusion or missing potential benefits.³ In investment contexts, FOMO can cause investors to deviate from rational strategies, making impulsive decisions based on the dread of missing profitable opportunities, often neglecting fundamental analysis.^{4,5}

The COVID-19 era witnessed a surge in 'Robinhood investors' - young, digitally adept individuals trading stocks, spurred by lockdown-induced liquidity and time, enhanced digital platforms, and plummeting stock valuations.⁶ These novice investors, influenced by FOMO, often prioritise social trends over data-driven decisions, echoing

the view that many are joining the investment bandwagon due to prevailing social norms and the allure of quick gains.⁷

In light of the above, the primary aim of this paper is to undertake a systematic literature review (SLR) to delve deeper into the relationship between the Fear of Missing Out (FOMO) and investment decisions. By exploring this intricate nexus, we seek to illuminate how FOMO influences investment behaviour, thus equipping stakeholders with insights to shape strategies that can offset these biases, ensuring alignment with long-term financial goals.

2 Methods

The methodology used for selecting studies has been described following the guidelines provided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).⁸ PRISMA is a well-known framework used to ensure that systematic reviews and meta-analyses are executed and reported standardised and transparently.⁹

All studies assessing the relationship between fear of missing out (FOMO) and investment were eligible for this systematic review. The inclusion criteria were database from Scopus, EBSCO Host, and Taylor & Francis; written in English; assessed "fear of missing out" OR "FOMO" AND "investment"; only open-access studies are included; type of document is journal academics only; and subject area are included: Finance & Management, Accounting, Business, Economics.

A literature search for the systematic review article was conducted in June 2023, including the databases viz., Scopus, EBSCO Host, and Taylor & Francis. Numerous inquiries were born in the above-stated electronic databases, and after performing various trials and errors, the final search term for the study: "fear of missing out" OR "FOMO" AND "investment decision" OR "financial decision".

After conducting preliminary searches in multiple academic databases using title, abstract, and keywords, the relevant studies were subjected to further evaluation and screening to determine their eligibility for inclusion in this systematic review.

3 Results & Discussion

A total of 530 studies were identified in the initial search process (Scopus, n= 244; EBSCO Host, n= 173; and Taylor & Francis, n= 113). First screening criteria: relevance of the topic & purpose, findings, or implication contains keywords, resulted (n=242). Second screening criteria: research focus, unit of analysis, unit of data collection, context, quality assessment, and results (n=49). As a result, (n=26) studies were selected for the full-text eligibility phase of the study. Out of the studies chosen for the eligibility of full text (n=9), studies were excluded due to not assessing the relationship between behavioural factors and investment decisions. Finally, (n=17) studies were selected for systematic review. The following Table 1 gives an information summary of all final result studies regarding authors, countries, year of publication, name of journals, number of citations, and keywords.

Table 1. Summary of final articles were selected for SLR.

No	Authors	Country	Year	Journal	Cited by	Keywords
1	Clor-Proell S.M., Guggenmos R.D., Rennekamp K. 10	USA	2019	The Accounting Review	31	Investment apps; mobile communication; push notifications; fear of missing out; information release
2	Shiva A., Narula S., Shahi S.K. ¹¹	India	2020	Journal of Content, Community and Com- munication	44	Nomophobia, I-FOMO, Fear of Missing Out, SmartPLS, Information Systems, PLS-SEM
	Kim H.J., Hong J.S., Hwang H.C., Kim S.M. Han D.H. ¹²	South Korea	2020	Frontiers in Psychology	35	Bitcoin, cryptocurrency, fear of missing out, character, temperament
4	Jying-Nan Wang, Hung-Chun Liub, Shuang Zhanga, Yuan- Teng Hsu ¹³	China	2021	Applied Economics	10	Bitcoin; informed trading; FOMO; GJRGARCH
	Derya Güler ¹⁴	Netherlands	2021	Journal of Behavioral Finance	17	Rational investor sentiment; Irrational investor sentiment; Bitcoin; VAR; CGARCH; EGARCH; GJR-GARCH; AP-ARCH; Asymmetric volatility effect; FOMO; Behavioral finance; Noisy traders; Covid-19
6	Lenhard Johannes ⁷	United King- dom	2021	Anthropology Today	0	Investors; Anthropologists; Venture capital; Finance; Automation
7	Martin B.A.S., Chrysochou P., Strong C., Wang D., Yao J. ¹⁵	Denmark	2022	Personality and Indi- vidual Differences	12	Dark Tetrad; Machiavellianism; Narcissism; Psychopathy; Sadism; Conspiracy beliefs; Bitcoin; Cryptocurrency; Crypto
	Sourirajan S., Perumandla S. 16	India	2022	International Journal of Bank Marketing	2	Desire, Habit, Anticipated regret, Model of goal-directed behaviour, FOMO, Positive anticipated emotion
9	Gupta S., Shrivastava M. ¹⁷	India	2022	International Journal of Emerging Markets	29	Herd behaviour, Loss aversion, fear of missing out (FOMO), Retail investors
10	Dony Sudrajat ⁶	Indonesia	2022	Journal of Economics Research and Social Sciences	0	Investment; Stocks; Students; Pandemic
11	Bonaparte Y. ¹⁸	USA	2022	Journal of International Financial Markets, In- stitutions and Money	5	Cryptocurrency, Bitcoin, Speculative asset, Productive asset, Demographics, Saving mo- tive, Sophisticated investor, Social investor
12	Misra R.; Prosad J.M.; Ashok S.; Goel P. ¹⁹	India	2022	Qualitative Research in Financial Markets	4	COVID-19, Investor behaviour, Market sen- timents, Behavioural tendencies, Biases, In- vestment strategies, Exploratory research
13	Metin Argan, Vahdet Altundal, Mehpare Tokay Argan ⁵	Turkey	2022	Journal of East-West Business	3	Behavioral finance; FOMO; investment; involvement; satisfaction
14	Sezen Güngör, Nihan Tomris Küçün, Kader Erol ²⁰	Turkey	2022	International Journal of Business & Manage- ment Studies	0	Behavioral Finance, Fear of Missing out, Investor Behavior, Investor Psychology
15	Muhammad Ilyas, Moeljadi, Achmad Helmy Djawahir ²¹	Indonesia	2022	International Journal of Research in Business and Social Science	1	Financial Knowledge, Financial Wellbeing, Financial Attitude, Investment Intention
	Hafishina A.D.R., Abraham J., Warnars H.L.H.S., Manurung R.H., Nainggolan T ²²	Indonesia	2023	TEM Journal	0	investment, bias, digital money, cryptocurrency, psychological factor, disruption
17	Paul Gerrans, Sherin Babu Abisekaraj, Zhangxin (Frank) Liu ²³	Australia	2023	Journal of Financial Literacy and Wellbeing	0	FOMO; fear of missing out; financial liter- acy; risk tolerance; gender; cryptocurrency and stock investment

Country of Origin: Most studies originate from different regions worldwide, including the United States, India, Turkey, Indonesia, South Korea, China, the Netherlands, the United Kingdom, Denmark, and Australia. This diversity indicates a global interest in these research topics.

Year of Publication: The studies were published between 2019 and 2023, suggesting the topics are of recent and current interest in the finance and psychology fields.

Journals: The articles were published in various reputable journals, indicating that these topics are of interest across multiple academic disciplines, including finance, psychology, marketing, economics, anthropology, and more.

Citations: The number of times each paper was cited varies widely, from 0 to 44, which could suggest that some topics or findings have had more influence or relevance than others in the academic community. However, for the most recent articles (2023), the lower citation count might be because they need more time to accumulate citations.

Keywords: Several themes emerge from the keywords. The most common ones are:

- **Investment**: Specifically, a focus on newer investments such as cryptocurrency (Bitcoin) and mobile investment apps.
- Fear of Missing Out (FOMO): Many articles investigate the psychological aspect of FOMO and its impact on investment behaviours.
- **Behavioural Finance**: A subset of the articles explores the cognitive biases (like herd behaviour loss aversion) influencing investor decisions.
- Covid-19 Impact: Few studies explore the influence of the pandemic on investment strategies and behaviours.

Overall, these papers explore how modern trends (like cryptocurrencies) and psychological factors (like FOMO) affect investor behaviour. A few articles examine these topics specifically in the context of the COVID-19 pandemic. These topics are highly relevant as financial markets become more accessible to individual investors and global events like the pandemic increasingly impact financial behaviours.

Fear of Missing Out (FOMO) and Investments: A significant portion of research papers revolve around the concept of Fear of Missing Out (FOMO) in the context of investment decisions. The prevalence of this theme suggests a keen academic interest in understanding the psychological factors influencing investments. The studies primarily focus on Bitcoin and other cryptocurrencies, reflecting the impact of these novel and rapidly expanding investment avenues. ¹⁵ Researchers appear interested in how the fear of missing out, driven by seeing others profit, may lead to impulsive investment decisions, potentially contributing to market volatility. ¹³

Behavioural Biases in Investing: Various research papers delve into the behavioural biases influencing investment decisions. They examine cognitive biases like herd behaviour and loss aversion and emotional factors such as anticipated regret or positive anticipation, which might motivate investment choices. This focus on behavioural finance highlights a growing recognition of the importance of cognitive and emotional biases in understanding investor behaviour, going beyond traditional economic theories that assume rational decision-making.

Impact of COVID-19 on Investments: Certain studies delve into the effect of the COVID-19 pandemic on investment behaviours. As a significant global event, the pandemic led to substantial shifts in the economic landscape and individuals' financial circumstances, significantly impacting investment patterns. This strand of research reflects the importance of understanding the influence of broader macroeconomic events on individual financial decisions.

Investor Characteristics and Investment Behaviors: Several papers explore the relationship between specific investor characteristics and investment behaviours. They

delve into factors such as an investor's financial literacy, gender, risk tolerance, demographic traits, and even particular conditions like being a student. This research focus indicates an interest in understanding how different population subgroups exhibit unique investment behaviours and preferences.

Alternative Forms of Investment: It's noticeable that many studies emphasise Bitcoin and other cryptocurrencies. The rise of these digital assets and their surging popularity as a form of investment among individual retail investors likely drives this focus. The volatility and relatively novel nature of cryptocurrency markets make them a fertile ground for academic research.

Diverse Methodologies: The list of research papers also suggests using various methodologies, including Structural Equation Modeling (SEM), Vector Auto Regression (VAR), and Exploratory Research. This variety of analytical approaches indicates the depth and breadth of research in the field, with each methodology offering unique insights into the topic.

Future research in mobile technology and investor behaviour can delve into the influence of mobile tech on investors' perception of negative or mixed-valence information, exploring the role of push notifications, app design, and individual differences like personality in investment behaviours. Expanding studies on Nomophobia and I-FOMO to diverse cultures and larger samples, including institutional investors, can provide richer insights. In the cryptocurrency domain, longitudinal studies observing Bitcoin investors, cultural influences, and regulatory and technological impacts are critical areas of exploration. Additionally, understanding the role of social narratives in investment decisions beyond just venture capital and examining potential biases is essential. There's a need to probe deeper into behavioural biases like loss aversion, herding behaviour, and the relationship between personality and investment in cryptocurrency. Investigating other investment biases, understanding investor behaviour during financial crises, and the intricate dynamics between FOMO, financial literacy, and risk tolerance can enrich our understanding of investment decision-making processes.

4 Conclusion

This literature review, sourced from databases like Scopus, Ebsco Host, and Taylor & Francis, sheds light on the profound influence of the Fear of Missing Out (FOMO) on investment decisions, extending from individual behaviours to broader market impacts. Emphasising its prevalence in realms from cryptocurrency to traditional stock markets, the findings reveal FOMO as a significant emotional bias that affects decisions across diverse demographics and situations, such as the COVID-19 pandemic's influence on student stock interest. Coupled with other psychological facets like the Dark Tetrad traits, FOMO's influence underscores the importance of understanding emotional and cognitive biases in finance. The review also highlights the role of social narratives and personal ties, especially in venture capital decision-making. Ultimately, comprehending the intricate balance between psychological factors, emotional biases, and external influences is crucial for more informed investment decisions and better financial outcomes.

References

- 1. Nair, V. R. & Antony, A. Evolutions and challenges of behavioural finance. *International Journal of Science and Research* **4**, 1055–1059 (2015).
- 2. Niehaus, G. & Shrider, D. Framing and the disposition effect: evidence from mutual fund investor redemption behaviour. *Quant Finance* **14**, 683–697 (2014).
- 3. McGinnis, P. J. Fear of missing out: Practical decision-making in a world of overwhelming choice. (Sourcebooks, Inc., 2020).
- 4. Rikberg, O. The Impact of Behavioural Biases on Individual Investors' Decision-Making: An Analysis of Cognitive and Emotional Biases in Investment Choices. (2023).
- 5. Argan, M., Altundal, V. & Tokay Argan, M. What Is the Role of FoMO in Individual Investment Behavior? The Relationship among FoMO, Involvement, Engagement, and Satisfaction. *Journal of East-West Business* **29**, 69–96 (2023).
- 6. Sudrajat, D. Fear of Missing Out and Student Interest in Stocks Investment during Covid-19 Pandemic. *Journal of Economics Research and Social Sciences* **6**, 115–123 (2022).
- 7. Lenhard, J. Towards fully automated investing? How venture capitalists are making the economic future old-fashioned. *Anthropol Today* **37**, 25–27 (2021).
- 8. Moher, D. *et al.* Preferred reporting items for systematic reviews and metaanalyses: The PRISMA statement. *PLoS Medicine* vol. 6 Preprint at https://doi.org/10.1371/journal.pmed.1000097 (2009).
- 9. Page, M. J. *et al.* The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *International Journal of Surgery* **88**, (2021).
- 10. Clor-Proell, S. et al. Mobile Devices and Investment News Apps: The Effects of Information Release, Push Notification, and the Fear of Missing Out. (2019).
- 11. Shiva, A., Narula, S. & Shahi, S. K. What drives retail investors' investment decisions? Evidence from no mobile phone phobia (Nomophobia) and investor fear of missing out (I-FoMo). *Journal of Content, Community and Communication* **10**, 2–20 (2020).
- 12. Kim, H. J., Hong, J. S., Hwang, H. C., Kim, S. M. & Han, D. H. Comparison of Psychological Status and Investment Style Between Bitcoin Investors and Share Investors. *Front Psychol* 11, (2020).
- 13. Wang, J. N., Liu, H. C., Zhang, S. & Hsu, Y. T. How does the informed trading impact Bitcoin returns and volatility? *Appl Econ* **53**, 3223–3233 (2021).
- 14. Güler, D. The Impact of Investor Sentiment on Bitcoin Returns and Conditional Volatilities during the Era of Covid-19. *Journal of Behavioral Finance* (2021) doi:10.1080/15427560.2021.1975285.
- 15. Martin, B. A. S., Chrysochou, P., Strong, C., Wang, D. & Yao, J. Dark personalities and Bitcoin®: The influence of the Dark Tetrad on cryptocurrency attitude and buying intention. *Pers Individ Dif* 188, (2022).

- 16. Sourirajan, S. & Perumandla, S. Do emotions, desires, and habits influence mutual fund investing? A study using the model of goal-directed behaviour. *International Journal of Bank Marketing* **40**, 1452–1476 (2022).
- 17. Gupta, S. & Shrivastava, M. Herding and loss aversion in stock markets: mediating role of fear of missing out (FOMO) in retail investors. *International Journal of Emerging Markets* 17, 1720–1737 (2022).
- 18. Bonaparte, Y. Time horizon and cryptocurrency ownership: Is crypto not speculative? *Journal of International Financial Markets, Institutions and Money* **79**, (2022).
- 19. Misra, R., Prosad, J. M., Ashok, S. & Goel, P. A qualitative examination of changing investment preferences, sentiments and behavioural tendencies in COVID-19: a particular case of Indian individual investors. *Qualitative Research in Financial Markets* 14, 602–620 (2022).
- 20. Güngör, S., Tomris Küçün, N. & Erol, K. Fear of Missing Out Reality in Financial Investments. *International Journal of Business & Management Studies* **03.** 53–59 (2022).
- 21. Ilyas, M., Moeljadi & Djawahir, A. H. The effect of financial knowledge and financial well-being on investment intention mediated by financial attitude. *International Journal of Research in Business and Social Science (2147- 4478)* **10**, 175–188 (2022).
- 22. Hafishina, A. D. R., Abraham, J., Warnars, H. L. H. S., Manurung, R. H. & Nainggolan, T. Disrupting Money: Psychological Factors of Investment Biases in Cryptocurrency. *TEM Journal* **12**, 482–493 (2023).
- 23. Gerrans, P., Abisekaraj, S. B. & Liu, Z. (Frank). The fear of missing out on cryptocurrency and stock investments: Direct and indirect effects of financial literacy and risk tolerance. *Journal of Financial Literacy and Wellbeing* 1, 103–137 (2023).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

