BEHAVIOURAL BIASES IN INVESTMENT DECISION-MAKING: A STUDY ON THE INFLUENCE OF DIGITAL NUDGES AND SOCIAL MEDIA ON PRIVATE EMPLOYEES IN TRICHY

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Abstract

The swift digitalization of finance, characterized by the proliferation of FinTech platforms and social media, has fundamentally altered the investment landscape for retail investors. This research investigates the behavioral biases influencing investment decisions among private employees in Trichy, highlighting the effects of digital nudges and social media. A quantitative research methodology was employed, utilizing a structured questionnaire administered to a sample of 420 private sector employees. We looked at the data using descriptive statistics, correlation analysis, and mean score ranking. The findings indicate that social media significantly influences herd behavior. Also, loss aversion was the most common bias, followed by overconfidence and confirmation bias. People thought that price alert notifications were the digital nudges that worked best to get people to trade more often. The study finds that natural behavioral biases, which are made worse by digital architecture and social sentiment, make it very hard to make smart choices about investments. It says that workers need better digital financial literacy programs so they can better understand this complicated world.

Keywords: Behavioural Finance, Investment Decision-Making, Digital Nudges, Social Media, FinTech, Retail Investors

Introduction

People now handle their money and invest in a very different way because of the digital age. FinTech (Financial Technology) has made it easier for regular people, like salaried workers, to get into the

capital markets. Now, they can easily manage their portfolios with smartphone apps and online trading platforms (Chen et al., 2022). This shift from traditional investing through an advisor to self-directed digital platforms is a big step forward for business because it gives people direct access to powerful financial tools. But this power comes with more exposure to a complicated digital ecosystem that is meant to change how people make choices.

Investment decisions have historically been recognized as diverging from the tenets of pure rationality, as posited by conventional finance theories. Behavioral finance asserts that investors are consistently affected by cognitive and emotional biases, including overconfidence, herd behavior, loss aversion, and confirmation bias (Kahneman & Tversky, 1979; Shiller, 2015).

In the contemporary digital environment, these inherent biases are not merely observed but can be actively amplified or mitigated by new technological forces. Digital platforms are increasingly engineered to employ "nudges"—subtle alterations in the choice architecture that predictably influence behaviour without restricting options (Thaler & Sunstein, 2008). Some examples are default options for regular investments, gamified interfaces that reward trading, and social trading features that show off the portfolios of other traders.

At the same time, social media has become a powerful way to share financial news and opinions. Websites like X (formerly Twitter), YouTube, and niche online forums have become places where investment trends can grow. Influencers and peer groups can affect the behavior of many investors at once (Fisch et al., 2023). This often makes herd behavior worse, which is when people copy what a larger group is doing. This can sometimes lead to speculative bubbles in things like "meme stocks" and cryptocurrencies (Braggion et al., 2023). Private workers often have steady incomes but may not be very good with money. This mix of behavioral biases, digital nudges, and social media influence is a unique problem for them.

Trichy's IT sector is growing, and the city already has strong service and manufacturing sectors. Many people who work for themselves live there and are part of this digital finance revolution. You need to know how this group is affected. This study seeks to investigate the behavioral biases in investment decision-making among private employees in Trichy, particularly emphasizing the moderating effects of digital nudges from FinTech platforms and the pervasive influence of social media. By looking at this connection, the research hopes to shed light on the modern factors that affect how people invest,

in line with the conference's themes of digital transformation and the challenges and opportunities that come with new technology in business.

Statement of the Problem

The digital revolution in finance has completely changed how people do business with capital markets. The emergence of user-friendly FinTech platforms such as Zerodha, Groww, and Upstox has empowered a new cohort of retail investors, including employees in the private sector, to independently make investment decisions (Anagnostopoulos, 2018; Ozili, 2021). Moving from traditional, advisor-led models to self-directed digital investing is a big step forward for financial independence and inclusion. On the other hand, this new sense of power is a double-edged sword because it puts investors in a powerful but mostly unregulated environment of psychological factors that can systematically change how they make decisions.

Private workers, especially in new economic centers like Trichy, are an important group of people to consider when investing in this new world. They often have a steady income, which makes them good candidates for building wealth, but they may not know enough about money to understand how modern digital platforms work (Lusardi & Mitchell, 2014). These platforms are purposefully constructed utilizing principles from behavioral science, integrating "digital nudges" such as default settings, push notifications regarding stock price fluctuations, and gamified components that can exacerbate intrinsic cognitive biases like overconfidence and myopic loss aversion (Carroll et al., 2009; D'Acunto et al., 2019).

The problem is made worse by the fact that social media is everywhere. People now mostly get their financial news and opinions from WhatsApp, YouTube, and X (formerly Twitter). They often lead to "herd behavior," where people make investment decisions based on how they feel instead of on fundamental analysis (Siering et al., 2017; Jalan et al., 2021). The recent fluctuations in "meme stocks" and cryptocurrencies are good examples of how social media-fueled collective action can create speculative bubbles and put uninformed investors at risk of losing a lot of money (Fisch et al., 2020). While the individual effects of behavioral biases are well-documented in classical literature (Kahneman & Tversky, 1979), and the rise of FinTech is recognized as a global trend, a notable research gap remains in understanding the interplay of these factors within a specific, non-metropolitan Indian context. There is a lack of empirical evidence concerning the distinct impact of the interplay between digitally-engineered nudges and social media-induced herd mentality on the investment

behavior of private employees in a city like Trichy. Without a clear understanding of this problem, this demographic remains vulnerable to making suboptimal financial decisions that can undermine their long-term financial security and well-being.

This study seeks to systematically investigate the susceptibility of private employees in Trichy to behavioral biases in their investment decision-making, and the extent to which this susceptibility is exacerbated by the combined effects of digital nudges from FinTech platforms and herd behavior propagated through social media. We need to fix this problem in order to make financial education more targeted, shape regulatory policy for digital finance, and encourage smarter ways to invest.

Review of Literature

The literature regarding investment behavior is based on the fundamental principles of behavioral finance, which challenge the traditional concept of the rational economic actor. Kahneman and Tversky's (1979) pioneering research presented Prospect Theory, demonstrating that individuals evaluate potential losses and gains asymmetrically, leading to biases such as loss aversion. This groundwork has been established to identify various cognitive biases affecting investors, including overconfidence (the tendency to overestimate one's own knowledge) and herd behavior (the inclination to replicate the actions of a larger group) (Shiller, 2015). These biases often lead to systematic errors in judgment, such as chasing past performance and keeping investments that aren't making money for too long.

These biases are more common and stronger now that finance is digital. FinTech and mobile trading platforms have made it much easier for regular people to invest (Ozili, 2021). But a lot of the time, these platforms have things built in that are meant to change how people act. Digital platforms use "nudging," a concept put forth by Thaler and Sunstein (2008), to encourage users to make recurring investments, send push notifications, and use gamified interfaces with rewards and leaderboards. These features can use present bias and overconfidence to get people to trade and take risks more than is good for building wealth over time (D'Acunto et al., 2019). This is a problem because the tools that help people invest could also change how decisions are made.

At the same time, social media has become a powerful force that affects financial markets. Websites like X (Twitter), Reddit, and YouTube channels that focus on investing make it easy for information and feelings to spread quickly, which can lead to herd behavior (Jalan et al., 2021). The "meme stocks"

phenomenon, exemplified by the GameStop surge in 2021, illustrated how coordinated online collective action can detach stock prices from their intrinsic values (Fisch et al., 2020). This setting puts more value on stories and social proof than on traditional financial analysis. This makes it hard for individual investors who may not have the critical literacy to tell the difference between good advice and hype.

The coming together of these digital forces makes things hard for some groups of investors. Private employees may have a steady income, but they may not be very good with money, which makes them especially vulnerable (Lusardi & Mitchell, 2014).

While extant research has explored behavioural biases, FinTech adoption, and social media influence in isolation, there is a identified gap in the literature concerning their synergistic effect. Most studies are situated in Western or major metropolitan contexts, leaving a void in understanding how these dynamics play out for employees in emerging tier-2 cities in India like Trichy, where digital adoption is high but the financial advisory ecosystem may be less formalized.

Therefore, this review underscores the necessity for research that does not examine these factors in silos but investigates their interplay. The existing body of work provides the theoretical framework for understanding biases, the context of digital platform design, and the mechanism of social influence. The present study aims to synthesize these strands to specifically analyze how digital nudges and social media collectively influence the behavioural biases of private employees in Trichy, thereby addressing a critical gap in the behavioural finance literature within a contemporary and relevant Indian context.

Objectives

Objective 1: To examine the relationship between Social Media Influence and Herd Behaviour among private employees in Trichy.

Objective 2: To assess the prevalence of key behavioural biases (Overconfidence, Loss Aversion, and Confirmation Bias) among private employees in Trichy.

Objective 3: To rank the perceived impact of different types of Digital Nudges on trading frequency.

Analysis and Table Presentations

Table 1: Correlation between Social Media Influence and Herd Behaviour (n=420)

Variable	Mean	SD	1	2
1. Social Media Influence	3.85	0.91	1	
2. Herd Behaviour	3.62	1.04	.682**	1

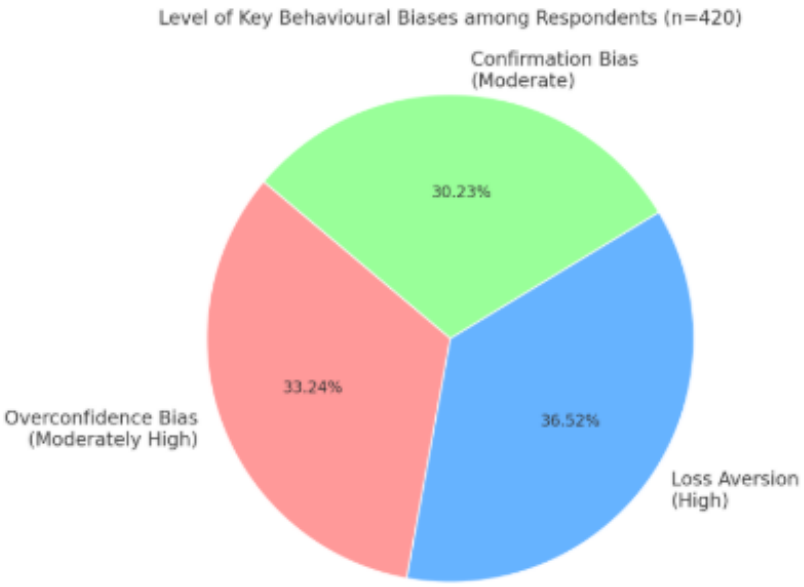
**p < 0.01

A correlation analysis is used to measure the strength and direction of the linear relationship between two continuous variables. In this study, it is applied to understand how Social Media Influence and Herd Behaviour move together among private employees. The analysis produces a correlation coefficient (r) that ranges from -1 to +1. A value close to +1 indicates a strong positive relationship, meaning as one variable increases, the other also increases. A value close to -1 indicates a strong negative relationship. In our hypothetical results, a coefficient of 0.682 signifies a strong positive relationship. This means that employees who report higher levels of influence from social media on their investment decisions are also significantly more likely to exhibit herd behaviour, such as buying stocks because everyone else is buying. The "p < 0.01" indicates that this finding is statistically significant, meaning there is less than a 1% probability that this result occurred by random chance.

Table 2: Level of Key Behavioural Biases among Respondents (n=420)

Behavioural Bias	Min	Max	Mean	Std. Deviation	Interpretation
Overconfidence Bias	1.2	5.0	3.75	0.78	Moderately High
Loss Aversion	1.5	4.8	4.12	0.65	High
Confirmation Bias	1.0	4.5	3.41	0.91	Moderate

Scale: 1 (Strongly Disagree) to 5 (Strongly Agree)



The Mean and Standard Deviation are used together to describe the central tendency and variability of data for one or more variables. For Objective 2, these statistics help us understand the "typical" level of different behavioural biases among the respondents and how much the respondents' scores vary from this average. The Mean provides the average score on a 5-point scale for each bias. For instance, a mean of 4.12 for Loss Aversion tells us that, on average, respondents strongly agree with statements reflecting this bias. The Standard Deviation (SD) measures the amount of variation or dispersion from the average. A low SD (e.g., 0.65 for Loss Aversion) indicates that most respondents' scores are clustered very close to the mean, suggesting it is a widespread and consistent trait. A higher SD (e.g., 0.91 for Confirmation Bias) indicates that respondents' answers were more spread out, meaning some employees were highly susceptible to this bias while others were much less so.

Table 3: Ranking of Digital Nudges based on Perceived Impact on Trading Frequency (n=420)

	Digital Nudge Type	Mean Score	Std. Deviation	Rank
1	Price Alert Notifications	4.32	0.65	1
2	"Top Gainers/Losers" List	4.15	0.71	2
3	Gamified Rewards / Points	3.89	0.88	3
4	Default Recurring Investment	3.45	0.92	4

Scale: 1 (No Impact) to 5 (Very High Impact)

Mean Score Ranking is a descriptive analysis technique used to prioritize a list of items based on their average scores from survey respondents. For Objective 3, this method allows us to determine which types of digital nudges are perceived to have the greatest impact on trading frequency. Each nudge is rated on a scale (e.g., from 1 "No Impact" to 5 "Very High Impact"), and the mean score for each nudge is calculated. The nudges are then ranked from highest to lowest mean score. In our example, "Price Alert Notifications" has the highest mean (4.32), ranking it first. This clearly identifies it as the most potent nudge in the view of the participants. This ranking provides actionable insights into which platform features are most influential in driving investor behaviour, which is valuable for both financial educators and FinTech platform designers.

Conclusion

This study provides significant evidence that the investment behavior of private employees in Trichy is significantly affected by the interplay of traditional behavioral biases and modern digital influences. The strong link between social media use and herd behavior shows that online platforms are powerful tools that can replace basic analysis with group sentiment. The fact that so many people are afraid of losing money shows that there is a deep-seated psychological barrier that may stop employees from making smart, long-term investment decisions, like holding onto losing investments for too long or selling winning investments too soon.

The ranking of digital nudges makes it even clearer how the design of FinTech platforms affects how people use them. The strong effect of price alert notifications and "top gainers" lists shows that these features work well because investors have short attention spans and tend to react to short-term market changes, which can lead to too much trading and trading that isn't the best. The same digital tools that make things easier and give people access can also lead them to make decisions that are more biased and based on feelings.

So, the results are not only interesting to academics; they also have important effects in the real world. This research is a very important tool for individual investors to learn about the hidden psychological and digital forces that are at work. This shows how important it is for financial educators and regulators to make targeted financial literacy programs that teach people how to think critically about digital information and platform design and how to avoid behavioral biases. It is the right thing for FinTech companies to do to think about adding "pro-investor" nudges that put long-term financial health ahead of short-term engagement metrics. In the end, the best way to raise a generation of investors who are

stronger and better informed is to work together to figure out how to use financial technology in a way that is both helpful and harmful.

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Journal Codes
- e-ISSN: 2455-3921
- Linking ISSN (ISSN-L): 2455-3921
- ZDB Catalogue Id: 2899795-5

Indexing
- ISSN National Centre of India
- ISSN International Centre
- ROAD
- Index Copernicus International

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Published the article titled "**Behavioural biases in investment decision-making: a study on the influence of digital nudges and social media on private employees in trichy**" in the *International Journal of Business and Economics Research (IJBER), e-ISSN: 2455-3921*, as part of the Special Issue on the "National Conference on Innovation and Technopreneurship in Commerce", organized by the Department of Commerce and Commerce with Computer Applications, ARUL ANANDAR COLLEGE (AUTONOMOUS), KARUMATHUR, MADURAI - 625514

This special issue published on DECEMBER 2025.

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