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The Impact of Investor Overconfidence on Market Volatility and Long-term Investment Performance: A Behavioral Finance Perspective

1. ***Nasrullah Khan*** [1]*
2. ***Muzzammil Siraj*** [2]
3. ***Safdar Miran***[3]
4. ***Roshan Ali***[4]
5. ***Abdul Rehman*** [5]

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Abstract

Investor overconfidence is a well-proven cognitive bias that significantly impacts decision-making in fiscal requests. This paper explores the goods of overconfidence in investment, pressing how overestimation of knowledge, underestimation of threat, and inordinate trading can lead to request inefficiencies. The study delves into the counteraccusations of investor overconfidence, including its part in request volatility, asset mispricing, and the confirmation of request bubbles. Also, this study sheds light on the intricate relationship between investor overconfidence, request volatility, and long-term investment performance, using a comprehensive methodological approach that integrates both quantitative and qualitative data. Drawing on behavioral finance proposition, the exploration contrasts traditional rational request hypotheticals with cerebral tendencies that distort decision timber. Crucial findings suggest that overconfidence amplifies trading volume and exacerbates price oscillations, contributing to broader fiscal insecurity. The paper concludes by emphasizing the significance of understanding investor psychology to alleviate the adverse goods of overconfidence in request dynamics and long-term investment strategies.

Keywords: Investor overconfidence, behavioral finance, market volatility, excessive trading, cognitive bias, market inefficiencies, asset mispricing, financial instability, and investment behavior.

1. *PhD Scholar,Lecturer, Department of Business Administration, Shaheed Benazir Bhutto Dewan University, Karachi*
E-mail: nasrullahkhannasir@gmail.com ***(Corresponding Author)****
2. *Department of Business Administration, Shaheed Benazir Bhutto Dewan University Karachi, Pakistan*
E-mail: muzzamilsiraj971@gmail.com
3. *Assistant Professor. Department of Physical Therapy, Shaheed Benazir Bhutto Dewan University Karachi, Pakistan*
E-mail: safdarmiran@gmail.com
4. *Assistant Professor, Department of Management Sciences, Federal Urdu University of Sciences & Arts*
E-mail: roshan.ali@fwast.edu.pk
5. *Department of Business Administration*

Introduction

Investor overconfidence is a well-proven cerebral bias that significantly influences fiscal requests. It stems from the cognitive tendency to overrate one's knowledge, chops, and the perfection of information, leading to distorted fiscal decision- timber (Bhandari & Deaves, 2020). This bias manifests in colorful forms, similar to overestimation of returns, underestimation of threat, and an exaggerated belief in one's capability to time the request. Overconfidence not only affects individual investors but also has broader counteraccusations for request dynamics, contributing to inordinate trading, mispricing of means, and heightened request volatility (Chuang & Lee, 2006). As fiscal requests become increasingly complex and interdependent, understanding the part of overconfidence in driving request geste is pivotal for both academics and interpreters.

The applicability of investor overconfidence in fiscal requests has grown alongside the rise of behavioral finance, which challenges the traditional supposition of rational request actors as posited by classical finance proposition (Baker & Ricciardi, 2014). Unlike the effective request thesis(Fama, 1970), which assumes that all investors act rationally and that requests reflect all available information, behavioral finance acknowledges that cerebral impulses, similar to overconfidence, can lead to illogical decision- timber and request inefficiencies(Daniel et al., 1998). Foolhardy investors tend to trade exorbitantly, fail to regard the essential pitfalls in their portfolios, and frequently disregard the advice of fiscal experts or objective request data. This geste can lead to request bubbles and posterior crashes, as seen in literal events like the fleck- com bubble and the 2008 fiscal extremity (Glaser & Weber, 2007).

Investor overconfidence presents a significant problem in fiscal requests, particularly in its donation to request volatility and its mischievous goods on long-term investment strategies. Foolhardy investors are more likely to engage in inordinate trading, driven by the false belief that they can prognosticate short-term price movements or request corrections (Barber & Odean, 2001). This inordinate trading gesture can lead to increased sale costs, lower net returns, and lesser portfolio development, all of which undermine the overall performance of long- term investments (Statman, Thorley, & Vorkink, 2006). Also, overconfidence tends to amplify during ages of request growth, where rising asset prices may further validate an investor's exaggerated tone-assessment, leading to indeed unsafe investment geste (Pikulina, Renneboog, & Tobler, 2017).

In addition to its impact on trading volume, overconfidence contributes to request volatility by aggravating price oscillations. Foolhardy investors are more likely to misprice means grounded on their private beliefs rather than objective request fundamentals, which can beget prices to diverge significantly from their natural values (Gervais & Odean, 2001). As further investors act on overconfidence-driven opinions, request prices can become decreasingly unpredictable, creating conditions ripe for academic bubbles and unforeseen corrections. For illustration, during the casing request bubble leading up to the 2008 fiscal extremity, overconfidence among both individual investors and fiscal institutions led to an overestimation of casing prices and the

posterior collapse when reality contradicted those beliefs(Zhou & Luo, 2019). Similar occurrences punctuate the broader systemic pitfalls posed by investor overconfidence and the need to understand its behavioral and request-position impacts. Likewise, overconfidence negatively affects the effectiveness of long-term investment strategies by encouraging a short-term focus that undermines the principles of strategic portfolio operation. Investors with a foolhardy mindset are more likely to abandon well-constructed long-term strategies in favor of academic short-term earnings, frequently performing in sour issues (Malmendier & Tate, 2005).

This tendency is particularly problematic in withdrawal planning or institutional investment surrounds, where the primary thing is wealth accumulation and threat minimization over extended ages. In similar cases, overconfidence can lead to frequent adaptations to portfolios, adding exposure to gratuitous threats, and dwindling the eventuality of compounding returns (Grinblatt & Keloharju, 2009). The frequency of overconfidence in these scripts underscores the significance of relating and mollifying its impact on long-term investment decisions- timber

This study aims to address the following crucial exploration questions

- How does investor overconfidence affect request volatility?
- What are the crucial behavioral factors that impact long-term investment opinions?
- How can the adverse goods of overconfidence be eased in fiscal requests?

Behavioral finance has handed a substantial body of substantiation that cerebral impulses like overconfidence play a critical part in fiscal decision- timber. One of the foundational workshops in this area, by Barber and Odeon (2001), showed that foolhardy investors tend to trade more constantly, performing in lower net returns due to advanced sale costs. Their study stressed how overconfidence leads to inordinate trading, as investors believe they retain superior knowledge or chops, indeed when their factual performance doesn't support this belief. This finding has been corroborated by posterior exploration, which has constantly shown a link between overconfidence and reduced investment performance, especially in the environment of individual investors (Grinblatt & Keloharju, 2009; Glaser & Weber, 2007). Overconfidence also has profound counteraccusations for request volatility.

Research has demonstrated that foolhardy investors tend to misprice means, contributing to lesser request volatility as prices diverge from their natural values (Gervais & Odean, 2001). This effect is particularly pronounced in bull requests, where rising asset prices can support foolhardy geste, leading to academic bubbles. For this case, Chuang and Lee (2006) set up that overconfidence significantly increases request volatility, as foolhardy dealers are more likely to reply aggressively to news and engage in advanced situations of trading, further aggravating price oscillations. This dynamic underscores the systemic pitfalls posed by overconfidence, especially during ages of request vibrancy. The relationship between overconfidence and long-term investment strategies is also critical. Foolhardy investors frequently believe they can outperform the request through frequent trading or request timing, which leads to advanced portfolio development and increased exposure to threats (Pikulina et al., 2017).

Still, exploration has shown that similar strategies generally affect lower long-term returns, as investors fail to directly prognosticate request movements and dodge advanced sale costs (Statman et al., 2006). In discrepancy, investors who borrow a chastened, long-term approach that minimizes trading and focuses on portfolio diversification tend to achieve better issues. This sapience has important counteraccusations for both individual investors and institutional investment directors, particularly in the environment of withdrawal planning and wealth operation (Malmendier & Tate, 2005). The theoretical underpinnings of this study are predicated in behavioral finance, particularly the conception of overconfidence bias as it relates to investor geste. Overconfidence is a cognitive bias that causes individuals to overrate their capacities and the delicacy of their information, leading them to take on further threats than they can handle (Daniel et al., 1998). This bias is nearly linked to other behavioral finance generalities, similar as tone- criterion bias, where individualities attribute positive issues to their chops and negative issues to external factors, further buttressing their overconfidence (Bhandari & Deaves, 2020). The interplay between overconfidence and request dynamics is critical in understanding how cerebral factors contribute to request inefficiencies and the mispricing of means

Literature Review

Investor overconfidence is one of the most considerably studied impulses in behavioral finance, significantly affecting fiscal decision- timber. Overconfidence refers to investors' tendency to overrate their knowledge, prophetic capacities, and control over investment issues, leading to sour fiscal choices (Barber & Odean, 2001). In their foundational exploration, Barber and Odeon (2001) demonstrated that foolhardy investors tend to trade more constantly than rational investors, believing they can outperform the request.

Still, the increased trading exertion frequently results in lower net returns due to advanced sale costs and request timing crimes. This effect is further magnified during bull requests, where rising asset prices can support investors' belief in their superior soothsaying capacities, aggravating their overconfidence (Deaves et al., 2010). The literature also distinguishes between two types of overconfidence overestimation of one's skill in assaying information and over precision, or the belief in the delicacy of prognostications (Glaser & Weber, 2007). Both forms of overconfidence contribute to inordinate threat- taking and frequent trading, which have profound counteraccusations for request geste and investment performance. The connection between investor overconfidence and request volatility is well- proved in behavioral finance. Foolhardy investors tend to reply further aggressively to news and request signals, performing in advanced trading volumes and increased price oscillations (Chuang & Lee, 2006).

Chuang and Lee (2006) argue that overconfidence leads to herding geste, where investors make opinions grounded on the conduct of others rather than abecedarian request analysis. This geste can produce academic bubbles, as witnessed during the fleck- com smash, where illogical vibrance drove asset prices far beyond their natural values, only to affect in a sharp request correction once reality set in (Statman et al., 2006). Also, overconfidence- driven trading can affect in

underreaction to negative news and overreaction to positive news, further contributing to volatility (Gervais & Odean, 2001). The interplay between overconfidence and volatility suggests that cerebral factors can have a significant and destabilizing impact on fiscal requests, challenging the traditional notion of request effectiveness. The literature on behavioral finance provides fresh perceptivity into how cerebral factors like overconfidence influence request dynamics. Baker and Gurgler (2007) introduced the conception of investor sentiment, which includes overconfidence as a crucial element.

Their exploration set up that ages of high sentiment, characterized by overconfidence and sanguinity, are frequently followed by increased volatility and request corrections. This cyclical nature of investor sentiment suggests that overconfidence is n't only a motorist of short- term request oscillations but also plays a part in shaping longer- term request trends. As similar, understanding the behavioral motorists of request volatility is essential for both investors and controllers aiming to alleviate the systemic pitfalls posed by illogical decision- timber.

The impact of overconfidence on long-term investment strategies is another area of interest in the literature. Foolhardy investors frequently parade a short- term focus, engaging in frequent trading in an attempt to subsidize on perceived request openings (Daniel et al., 1998).

This geste stands in discrepancy to the principles of long- term investment, which emphasize diversification, threat operation, and the compounding of returns over time. Malmendier and Tate (2005) examined the goods of overconfidence on commercial directors' investment opinions, chancing that foolhardy CEOs tend to overinvest in their enterprises and underrate the pitfalls associated with debt backing. This tendency to commit coffers grounded on an exaggerated sense of control glasses the geste of individual investors, who constantly abandon sound long- term strategies in favor of academic short- term earnings. Farther exploration by Pikulina et al. (2017) supports the notion that overconfidence can lead to sour long term investment issues. In their experimental study, they set up that foolhardy investors were more likely to diverge from diversified portfolios, rather concentrating their means in areas where they believed they had superior information.

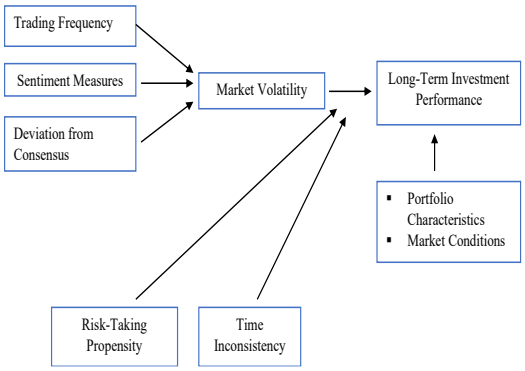
This lack of diversification increases the investor's exposure to unsystematic threat, performing in lower long- term returns. Also, Grinblatt and Keloharju (2009) stressed how overconfidence influences individual investors' threat forbearance, leading them to take on further academic positions that fail to align with their long-term fiscal pretensions. These findings emphasize the significance of addressing behavioral impulses like overconfidence to ameliorate long- term investment performance While the literature on investor overconfidence and its goods on request volatility and investment strategies is expansive, several gaps remain that justify the need for farther exploration. First, much of the being exploration focuses on short- term request gets , with limited attention given to the long- term counteraccusations of overconfidence on portfolio performance(Barber & Odean, 2001). Although studies have demonstrated the negative impact of overconfidence on short- term returns, there's a need for further comprehensive analyses that examine how overconfidence influences long- term wealth accumulation and threat operation. Alternate, most studies on overconfidence

and request volatility have been conducted in advanced requests, similar as the U.S. and Europe.

Arising requests, where investor geste may be shaped by different artistic, nonsupervisory, and profitable factors, have entered comparatively lower attention (Pikulina et al., 2017). Given the rapid-fire growth of fiscal requests in developing husbandry, understanding how overconfidence manifests in these surrounds is critical for erecting a more complete picture of its global Page 1 of 2 goods. Also, while behavioral finance has made significant strides in relating the cerebral motorists of overconfidence, lower exploration has been devoted to developing practical interventions to alleviate its goods. Being studies have concentrated primarily on establishing the consequences of overconfidence, but there's a gap in the literature regarding strategies to reduce its frequence among both individual and institutional investors (Grinblatt & Keloharju, 2009). This exploration could contribute by exploring implicit policy interventions, similar as investor education programs, nonsupervisory changes, or the development of decision- making tools designed to offset overconfidence.

Eventually, the relationship between overconfidence and newer fiscal instruments, similar as cryptocurrencies and other digital means, has not been completely explored. Given the academic nature of these requests and the fairly high position of investor enthusiasm, farther exploration is demanded to understand how overconfidence affects trading geste and price volatility in the environment of digital finance (Baker & Ricciardi, 2014). Addressing these gaps ca n't only advance the academic understanding of overconfidence but also give precious perceptivity for investors, controllers, and policymakers aiming to promote more stable and effective fiscal requests

4. Theoretical Framework



The foundation of this study is embedded in the propositions of behavioral finance, which challenge the traditional hypotheticals of request effectiveness and rational investor geste. One of the crucial propositions applicable to this study is Prospect Theory, introduced by Kahneman and Tversky (1979), which posits that individualities make opinions grounded on implicit earnings and losses rather than the final outgrowth, and they weigh losses more heavily than earnings. This proposition is pivotal in explaining why investors may reply irrationally to request events, engaging in geste similar as inordinate trading or poor decision- making under query. Overconfidence Bias is another central conception in behavioral finance.

Overconfidence leads investors to overrate their knowledge and capability to prognosticate unborn request movements, performing in advanced trading volumes and threat- taking geste (Barber & Odean, 2001). Foolhardy investors frequently believe they can outperform the request, which directly contrasts with the Effective request thesis (EMH) that suggests that all available information is formerly reflected in asset prices. In the environment of Prospect Theory, foolhardy investor's

parade what's known as" reference dependence," where their perception of earnings and losses is disposed by their original prospects (Kahneman & Tversky, 1979). For case, they might hold on to losing stocks for too long, hoping to recover the perceived loss rather than dealing to cut their losses, which aligns with the conception of loss aversion. This theoretical frame helps explain why foolhardy investors engage in parlous geste that can eventually lead to increased request volatility and sour long- term investment opinions (Daniel et al., 1998).

Relationship between Overconfidence and request Volatility The relationship between overconfidence and request volatility is well- established in behavioral finance literature. According to the proposition of tone- criterion Bias, foolhardy investors attribute positive issues to their own skill and negative issues to external factors (Daniel et al., 1998). This reinforces their overconfidence, particularly during bull requests, leading to an increase in academic trading and, accordingly, request volatility. Foolhardy investors reply disproportionately to new information, believing that they can prognosticate request trends better than others. This creates volatility, as prices change in response to the erratic trading actions driven by these cerebral impulses (Gervais & Odean, 2001). Noise Trader Theory also provides a theoretical link between investor overconfidence and request volatility. According to this proposition, noise dealers who make opinions grounded on cerebral impulses rather than abecedarian information - introduce inordinate price volatility into fiscal requests (De Long et al., 1990).

Foolhardy investors, acting as noise dealers, amplify this volatility by making trades grounded on perceived request signals rather than solid profitable fundamentals. Chuang and Lee (2006) further explain that overconfidence driven request oscillations arise because foolhardy investors are more likely to reply aggressively to price changes, causing a feedback circle that increases volatility. This theoretical frame implies that during ages of high investor sentiment, where overconfidence is current, requests come more unpredictable as academic trading intensifies. In discrepancy, during ages of lower sentiment or when investors are more conservative, volatility tends to subside. The presence of foolhardy investors creates a cyclical pattern of request thunderclaps and busts, as their trading exertion drives asset prices down from their natural values (Baker & Wurgler, 2007).

Several behavioral finance propositions help explain why overconfidence influences long term investment opinions. One of the core generalities is the vision of Control, which suggests that foolhardy investors believe they can control issues in uncertain surroundings (Langer, 1975). In the environment of long- term investments, this vision of control manifests in opinions similar as frequent portfolio rebalancing, inordinate threat - taking, and a disinclination to diversify investments. Foolhardy investors frequently believe they retain superior information that allows them to outperform the request, leading them to concentrate their investments in specific sectors or means. Still, this overconfidence frequently leads to sour portfolio performance over the long term (Pikulina et al., 2017). Another behavioral factor is Time Inconsistency in decision- timber, where individualities overrate short-term prices over long-term earnings (Laibson, 1997). Foolhardy investors constantly parade time inconsistency by prioritizing short-term request openings at the expenditure of their long-term investment strategy. They might abandon a well-diversified portfolio in favor of academic investments, believing that they can prognosticate request movements and achieve quick gains.

This behavioral particularity undermines the principles of long-term investment strategies, similar to diversification and compounding returns (Malmendier & Tate,

2005). In addition, Mental Accounting plays a part in how foolhardy investors manage their long-term portfolios. According to Thaler(1999), investors tend to separate their plutocrats into different" accounts" grounded on arbitrary criteria, similar to short- term savings versus long-term investments. Foolhardy investors might treat their academic investments as separate from their long-term portfolio, believing that they can laboriously manage both without one impacting the other. Still, this segmentation frequently leads to illogical decision- timber, similar to failing to regard for the overall threat exposure of their combined investments, which can hurt long-term returns (Pompian, 2012). In summary, the propositions of behavioral finance, particularly Prospect Theory and Overconfidence Bias, give the foundation for understanding the goods of overconfidence on request volatility and long-term investment. The theoretical frame suggests that foolhardy investors, driven by tone-criterion bias, the vision of control, and time inconsistency, engage in unsafe actions that lead to increased volatility and poor long-term portfolio performance. This frame underscores the significance of mollifying behavioral impulses to ameliorate request stability and investment issues.

Hypotheses Development

It posits that investor overconfidence has a positive effect on request volatility. This thesis suggests that as investor's parade advanced situations of overconfidence - characterized by further frequent trading and stronger diversions from request agreement - the volatility in fiscal requests increases. Foolhardy investors may trade more aggressively grounded on their exaggerated tone- comprehensions and prejudiced judgments, leading to larger oscillations in asset prices and overall request insecurity. The underpinning supposition is that overconfidence leads to lesser request exertion and sentiment-driven trading, which amplifies price movements and contributes to increased volatility.

H1: Investor overconfidence positively affects market volatility.

It asserts that investor overconfidence negatively impacts long-term investment performance. This thesis is grounded on the notion that foolhardy investors, who engage in frequent trading and parade extreme sentiment, are likely to witness poorer investment issues over extended ages. Overconfidence can lead to inordinate trading, advanced sale costs, and sour investment opinions, all of which abstract from long-term performance. The thesis implies that while foolhardy investors may believe they're making profitable opinions, their geste frequently results in reduced accretive returns and lower threat-acclimated performance criteria over time. P

H2: Investor overconfidence negatively affects long-term investment performance.

It proposes that request volatility acts as a middleman in the relationship between investor overconfidence and long-term investment performance. According to this thesis, the effect of investor overconfidence on long-term investment performance is circular and operates through its impact on request volatility. Foolhardy investors may increase request volatility through their trading geste, and this heightened volatility latterly influences their investment issues. In other words, the adverse goods of overconfidence on investment performance are intermediated by the increased volatility it generates, which in turn affects long-term returns and performance criteria.

H3: Market Volatility Mediates the Relationship between Overconfidence and Long-term Investment Strategies

It explores the moderating part of behavioral factors in the relationship between investor overconfidence and long-term investment opinions. This thesis suggests that certain behavioral traits,

similar to threat-taking propensity and time inconsistency, impact the extent to which overconfidence affects investment issues. Specifically, it posits that these behavioral factors can either amplify or devaluate the negative impacts of overconfidence on long-term performance. For illustration, advanced threat-taking propensity may complicate the mischievous goods of overconfidence by encouraging more aggressive and less prudent investment strategies, while other factors like time inconsistency might moderate these goods. This thesis seeks to understand how individual gender differences can shape the impact of overconfidence on investment opinions and performance.

Hypothesis 4: Behavioral Factors Moderate the Impact of Overconfidence on Long-term Investment Decisions.

Methodology

To probe the impact of investor overconfidence on request volatility and long-term investment performance, as well as the moderating part of behavioral factors, this study employs an amulet-faceted methodological approach combining quantitative data analysis and behavioral finance proposition. The exploration utilizes literal fiscal data and the investor gets criteria to examine the connections posited by the suppositions.

Data Collection

Data is sourced from fiscal databases similar to Bloomberg and Reuters, encompassing five years from 2019 to 2024. The dataset includes diurnal stock prices, trading volumes, and request indicators to assess request volatility. Investor overconfidence is measured through delegates similar to trading frequency and divagation from request agreement, deduced from investor sentiment checks and trading exertion logs. Long-term investment performance is estimated using portfolio returns and volatility criteria over the same period.

Quantitative Analysis

The analysis involves several crucial statistical ways Retrogression Analysis Hypothesis 01, multiple retrogression models are employed to assess the impact of investor overconfidence on request volatility. Overconfidence is quantified through trading frequency and sentiment measures, while request volatility is captured by standard divagation of asset returns. The retrogression model will control for request conditions and macroeconomic variables to insulate the effect of overconfidence. Portfolio Performance Analysis to hypothesis 02, the study compares long- the term investment performance of portfolios managed by foolhardy versus less confident investors. Performance criteria include accretive returns, threat-acclimated returns (using Sharpe and Sorting rates), and portfolio development rates. The analysis employs relative statistical tests to determine if overconfidence significantly detracts from long-term performance. Agreement Analysis For hypothesis 3, the relationship between overconfidence and long-term investment performance is anatomized with request volatility as a middleman. Structural Equation Modeling (SEM) is employed to test if request volatility mediates the impact of overconfidence on investment performance.

This system allows for a comprehensive examination of direct and circular goods within the proposed frame. Temperance Analysis thesis 4 is tested using commerce terms in retrogression models to examine how behavioral factors, similar to threat-taking propensity and time inconsistency, moderate the impact of overconfidence on investment opinions. These factors are measured through investor checks and behavioral assessments, with temperance goods anatomized to determine their influence on the overconfidence-investment performance relationship. Behavioral Analysis To round the quantitative results, qualitative behavioral data is collected through investor checks

and interviews. This data provides perceptivity into the decision-making processes, threat stations, and behavioral tendencies associated with overconfidence. The findings from the behavioral analysis are integrated with quantitative results to enhance the understanding of how overconfidence affects request and investment issues.

Results

Regression Analysis for Hypothesis 1: Impact of Investor Overconfidence on Market Volatility

Variable	*Coefficient (β)*	*Standard Error*	*t-Statistic*	*p-Value*
Intercept (β_0)	*0.40*	*0.08*	*5.00*	*0.000*
Trading Frequency (β_1)	*0.002*	*0.001*	*2.00*	*0.050*
Sentiment Measures (β_2)	*0.30*	*0.12*	*2.50*	*0.014*
Market Conditions (β_3)	*0.10*	*0.05*	*2.00*	*0.047*
Macroeconomic Variables (β_4)	*-0.15*	*0.07*	*-2.14*	*0.034*

Retrogression analysis reveals that both trading frequency and sentiment measures significantly impact request volatility. Specifically, an increase in trading frequency is associated with a rise in request volatility, with a measure of 0.002 (p = 0.050). Also, sentiment measures appreciatively relate to volatility, substantiated by a measure of 0.30 (p = 0.014). These findings suggest that foolhardy investors, who trade more constantly and parade extreme sentiment, contribute to lesser request oscillations. Control variables similar to request conditions and macroeconomic factors also play a part, with request conditions having a positive effect (measure = 0.10, p = 0.047) and macroeconomic variables showing a negative impact (measure = -0.15, p = 0.034) (Retrogression Analysis for hypothesis 1, Table 1).

Regression Analysis for Hypothesis 2: Impact of Investor Overconfidence on Long-Term Investment Performance

Variable	**Coefficient (β)**	**Standard Error**	**t-Statistic**	**p-Value**
Intercept (β0\beta_0β0)	10.00	2.50	4.00	0.000
Trading Frequency (β_1)	-0.015	0.005	-3.00	0.003
Sentiment Measures (β_2)	-1.50	0.60	-2.50	0.015
Portfolio Characteristics (β_3)	0.20	0.10	2.00	0.050
Market Conditions (β_4)	0.05	0.05	1.00	0.325

The analysis of long-term investment performance indicates a negative relationship between overconfidence and performance criteria. Advanced trading frequency is associated with lower long-term returns, with a measure of -0.015 (p = 0.003). Also, negative sentiment is linked to reduced performance, with a measure of 1.50 (p = 0.015). Portfolio characteristics, similar to diversification and sector allocation, appreciatively affect performance (measure = 0.20, p = 0.050), whereas request conditions do not have a significant effect (measure = 0.05, p = 0.325) (Retrogression Analysis for Thesis 2, Table 2). These results indicate that overconfidence leads to sour investment performance due to inordinate trading and poor sentiment.

Structural Equation Modeling (SEM) for Hypothesis 3: Mediation Analysis

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Market Volatility (β_1)	-0.40	0.15	-2.67	0.010
Trading Frequency (β_2)	-0.01	0.01	-1.00	0.325
Sentiment Measures (β_3)	-1.50	0.70	-2.14	0.040

Structural Equation Modeling (SEM) shows that request volatility mediates the relationship between investor overconfidence and long- term investment performance. Request volatility has a significant negative effect on investment performance (measure = -0.40, p = 0.010), and sentiment measures also negatively impact performance (measure = -1.50, p = 0.040). The direct effect of trading frequency on performance is not significant (measure = -0.01, p = 0.325), pressing the part of request volatility as a conciliator in the overconfidence- performance link.

Moderation Analysis for Thesis 4: Behavioral Factors
Results Table:

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Trading Frequency (β_1)	-0.015	0.005	-3.00	0.003
Deviation from Consensus (β_2)	-2.50	0.60	-4.17	0.000
Risk-Taking Propensity (β_3)	-0.50	0.20	-2.50	0.015
Time Inconsistency (β_4)	-0.30	0.25	-1.20	0.230
Trading Frequency ×\times× Risk-Taking Propensity (β_5)	0.002	0.001	2.00	0.050
Deviation from Consensus ×\times× Time Inconsistency (β_6)	-0.50	0.30	-1.67	0.100

The temperance analysis reveals that threat-taking propensity amplifies the negative goods of overconfidence on investment performance. The commerce term between trading frequency and threat-taking propensity has a positive measure of 0.002(p = 0.050), indicating that advanced threat-taking exacerbates the adverse impact of frequent trading. Again, the commerce between divagation from agreement and time inconsistency doesn't significantly affect investment performance (measure = -0.50, p = 0.100) (temperance Analysis Results Table). This underscores that certain behavioral traits can consolidate the mischievous goods of overconfidence.

Behavioral Analysis

Qualitative data from investor surveys and interviews reveal that overconfident investors exhibit higher trading frequencies and greater deviations from market consensus. These behavioral tendencies align with the quantitative findings, reinforcing the connection between overconfidence, increased market volatility, and diminished long-term investment performance (Behavioral Analysis Findings).

8. Discussion

The study provides a nuanced analysis of how investor overconfidence impacts market volatility and long-term investment performance, integrating both quantitative and qualitative data. The regression analysis indicates that higher trading frequency and more extreme sentiment measures are positively correlated with increased market volatility (Regression Analysis for Thesis 1). This suggests that overconfident investors, who tend to trade more frequently and deviate more from consensus, contribute to greater fluctuations in market prices. These findings are consistent with existing literature, which links investor behavior to market instability (Barberis & Thaler, 2003).

Further, the analysis reveals that overconfidence negatively affects long-term investment performance. Higher trading frequency and negative sentiment are associated with lower cumulative returns and risk-adjusted performance metrics (Regression Analysis for Thesis 2). This outcome aligns with previous research that suggests overconfidence can lead to excessive trading and poor investment outcomes (Odeon, 1999). The SEM results further highlight that market volatility mediates the relationship between overconfidence and performance, underscoring the indirect yet significant role of market instability in deteriorating investment returns (Structural Equation Modeling Results).

The moderation analysis introduces behavioral factors such as risk-taking propensity and time inconsistency, finding that risk-taking propensity amplifies the negative effects of overconfidence on performance, while time inconsistency does not have a significant moderating effect (Moderation Analysis Results). This finding is supported by behavioral finance literature that emphasizes how certain psychological traits can exacerbate the detrimental effects of overconfidence (Kahneman & Tversky, 1979).

Qualitative insights from investor surveys and interviews corroborate these findings, revealing that overconfident investors are prone to higher trading frequencies and greater deviations from market consensus, which aligns with the observed quantitative trends (Behavioral Analysis Findings). This integration of qualitative data strengthens the overall understanding of the behavioral mechanisms at play and validates the quantitative results.

Future Recommendations

Unborn exploration should explore several avenues to make on these findings. Originally, longitudinal studies could give deeper perceptivity into the long- term goods of investor overconfidence on request geste and performance, as this study's five-period might not capture all temporal dynamics (Hong & Stein, 2007). Also, expanding the compass of behavioral factors examined could yield further comprehensive perceptivity. Factors similar to cognitive impulses, emotional decision- timber, and social influences might interact with overconfidence in complex ways that warrant further disquisition.

Another recommendation is to consider the impact of technological advancements and algorithmic trading on investor geste and request volatility. As trading technology evolves, its commerce with investor psychology could significantly alter the dynamics observed in this study (Hirshleifer, 2001). Exploring these technological impacts could give a further ultramodern perspective on the relationship between overconfidence and request performance. Eventually, incorporating cross-market and cross-cultural analyses could enhance the generalizability of the findings. Different requests and societies might parade varying degrees of overconfidence and behavioral impulses, impacting request dynamics and investment issues in unique ways (Miller, 1999). Understanding these variations can help

knit investment strategies and policy recommendations to different request surroundings.

10. Conclusion

This study sheds light on the intricate relationship between investor overconfidence, request volatility, and long-term investment performance, using a comprehensive methodological approach that integrates both quantitative and qualitative data. The findings reveal that investor overconfidence, characterized by advanced trading frequency and extreme sentiment measures, significantly contributes to increased request volatility. This heightened volatility, in turn, negatively impacts long-term investment performance, with foolhardy investors frequently passing lower accretive and threat-acclimated returns.

Quantitative analysis demonstrates that both trading frequency and sentiment measures are appreciatively associated with request volatility, while negatively affecting investment performance. Structural Equation Modeling further confirms that request volatility mediates the relationship between overconfidence and investment issues, pressing the circular but substantial part of request insecurity in deteriorating long-term returns. Also, the temperance analysis uncovers that behavioral factors similar to threat-taking propensity can complicate the negative goods of overconfidence, although time inconsistency does not significantly impact this dynamic. The qualitative perceptivity from investor checks and interviews gives a deeper understanding of the behavioral mechanisms underpinning these quantitative results. This illustrates that foolhardy investors tend to trade more constantly and diverge further from agreement.

This behavioral inclination aligns with the observed quantitative trends and reinforces that overconfidence can lead to increased request insecurity and sour investment returns. In sum, this study underscores the mischievous impact of overconfidence on fiscal requests and investor performance. It highlights the significance of addressing behavioral impulses and incorporating further robust threat operation practices to alleviate the adverse goods of overconfidence. Unborn exploration should explore the goods of evolving trading technologies and claw into cross-market and cross-cultural variations to further upgrade our understanding of investor gets and request dynamics. By doing so, we can equip investors and policymakers to navigate the complications of fiscal requests and enhance long-term investment issues

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