The Effect of Overconfidence Bias on Investors Decisions in the Egyptian Stock Market: The Role of Information Acquisition[1]

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ABSTRACT

The aim of this paper is to empirically test the relationship between overconfidence bias on investor decisions. This paper also contributes to a better understanding of the role of information acquisition in moderating the relationship between behavioral biases and investor decisions. The findings confirm that behavioral biases (overconfidence bias) distort the rationality of individual investors' decisions, and that information acquisition significantly moderates the relationship between overconfidence bias and investor decisions. This study adds to the existing behavioral finance literature by highlighting the underutilized potential of information acquisition in managing irrationality caused by overconfidence bias. Individual investors can benefit from this study by better understanding the negative impact of behavioral biases as well as the utility of information acquisition in dealing with irrationality caused by overconfidence bias. The study attempts to combine behavioral finance and information acquisition literature with an aim concept to extend a theoretical understandings of investor decisions.

KeyWords: *Overconfidence bias, information acquisition, behavioral finance, traditional finance, investor decision*

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1. INTRODUCTION

Behavioral financial literature states that Several anomalies are observed in security markets that are not explained by traditional finance theories. High levels of market turnover are among the most difficult market puzzles to solve in many security markets. Several studies have found a link between past market returns and current market turnover. According to Mushinada and Veluri (2019), rational decisions necessitate infinite decision time, information, and cognitive ability that is directed toward achieving an optimal solution to the problem. According to DeBondt and Thaler (1994), the overconfidence bias is the most powerful factor influencing an individual's judgment. Individuals with overconfidence bias overestimate their abilities while underestimating the risk associated with the securities. Overconfidence bias, according to behavioral finance theories, is the cause of this relationship. traditional financial theorists assert that in an efficient market investors trade, purchase, and sell stocks in a "rational" manner. Each investor also carefully evaluates all available information before making any trading or investing decisions. Traditional finance has been the dominant form of finance for centuries, relying heavily on the use of debt and equity capital markets to raise capital. It is heavily regulated by governments and is subject to strict rules and regulations, but has been criticized for its lack of transparency and accountability. It has long been the primary source of financing for businesses, but in recent years other forms of finance have come to the fore. Unfortunately, traditional finance has also been the source of numerous financial crises, including the 2008 global financial crisis, and often involves a high degree of risk, with investors taking on the risk of losing their principal. Traditional financial instruments can still play an important role in mitigating financial crises and should be taken into account in the design of regulatory and policy measures (Goldfeder 2020). the American stock trader and the pioneer of day trading (jesse Livermore) stated that Emotional control is the most essential in playing the market, never lose control of your emotions when the market moves against you don’t get too confident over your wins or too despondent over your losses. The stock market is a complex and dynamic system that can offer investors a great opportunity to increase their wealth, but also carries with it a certain degree of risk. Investors must be aware of

the potential risks associated with investing in the stock market, such as market volatility, liquidity risk, and counterparty risk. Market volatility is the risk that the value of an investment can goes down or up quickly. Liquidity risk is the risk that an investor may not be able to sell their investment quickly enough to realize the value of their investment. Counterparty risk is the risk that the other party in a transaction may not honor their agreement or may not be able to pay their obligations. In addition to these risks, investors must also consider the potential for fraud or mismanagement of their investments. It is important for investors to understand the risks associated with investing in the stock market and to take appropriate measures to manage and mitigate these risks (Breeden 2019). investigate the impact of overconfidence, a behavioral bias that stems from the second building block of behavioral finance, "cognitive psychology," and affects traders' beliefs, and thus their trading behavior in the form of excessive trading DeBondt and Tahler (1995). The relationship between information acquisition and overconfidence investments is complex. The basic idea is that when an investor has more information, they may be more likely to feel overly confident in their decisions and invest in more risky investments. This can lead to more losses as well as more gains, depending on the accuracy of the information they have acquired. In other words, the more information an investor has, the more likely they are to feel overly confident in their decisions, but this can be both beneficial and detrimental. Investor overconfidence is the phenomenon of investors overestimating their ability to accurately assess investments and make profitable decisions. This can lead to overinvestment in risky assets and the neglect of risk management strategies. Research suggests that investors who are overconfident may acquire more information than is necessary to make a sound decision, leading to an over-reliance on the information they acquire. This can cause them to make decisions that are not in their best interest, such as investing in overly risky assets without considering all of the potential risks involved. Overconfidence can also lead to an over-reliance on past performance, which may not be indicative of future returns. Overall, overconfidence can lead to poor decision making and increased losses for investors. overconfidence is a pervasive phenomenon that can have both positive and negative effects on decision making. They found that,

compared to other biases, overconfidence is more strongly associated with higher decision-making accuracy, but that it can also lead to overestimation of outcomes, more risk-taking and less information-seeking. The authors suggest that future research should focus on understanding the mechanisms that lead to overconfidence, and how to use this knowledge to reduce its negative effects. Recent behavioral finance research has identified a number of psychological biases that influence investor decisions (Itzkowitz and Itzkowitz, 2017). According to behavioral finance academics, everyone has psychological biases that prevent them from making logical decisions, as well as unfavorable investing outcomes and poor investor performance. Intuitive thinking, judgment, and options can also have an impact on the quality of financial decisions (Bondt et al., 2013), or they can result in irrational behavior (Bashir et al., 2013). Overconfidence is a heuristic bias that investors use to reduce the risk of losses in unexpected circumstances. Individual investors' technical knowledge and reasoning abilities are hampered by the use of heuristics, which leads to poor decisions. As a result, investors make irrational decisions.

2. RESEARCH OBJECTIVES

investigate the effect of overconfidence bias on the decision making of individual investors to assess the role of information acquisition on investors decision.

3. LITERATURE REVIEW

Most finance experts place a high value on studying the actions of financial markets and the people who participate in them. A number of conventional financial theories have been put out in an effort to replicate the operation of the markets and their participants from a normative and logical standpoint. Standard finance is the body of knowledge built on the pillars of the arbitrage principles of Miller and Modigliani, the portfolio principles of Markowitz, the capital assets pricing theory of Sharpe, Lintner, and the option-pricing theory of and Black, Scholes, and Merton, according to Statman (1999). The theories of classical finance are built on the rationality assumption, which leads economists to believe that they are error-free .The EMH was still growing throughout the 1960s and 1970s. Eugene Fama is credited

with introducing the efficient market hypothesis in 1965. EMH was one of the pillars of conventional finance. The years between 1960 and 1990 saw many reviews of this hypothesis. The development in EMH that explains the heuristics and behavioral biases of financial market participants is what led to behavioral finance (Fama, 1965). The efficient market hypothesis explains that the real value of a stock or share should be determined by the information that is currently accessible about that stock, and that if that information changes, the stock price will be immediately updated (Fama et al, 1969). In the field of finance, there are two key considerations: first, how to raise money, and second, how to decide how best to manage and invest that money. In the field of finance, decision-making is crucial, and there are other disciplines.

Investor decision-making has been changed by behavioral finance. Investors now have a clearer knowledge of how their feelings, prejudices, and psychological tendencies might affect their choices. Investors can make better decisions and manage their portfolios by being aware of these tendencies. Due to the current market volatility, investors must be able to quickly alter their tactics and make choices based on the most recent information. Investors can make better judgements, lower their risk, and even boost their return with the aid of behavioral finance.

In today's markets, behavioral finance has developed into a crucial instrument for investors. It aids investors in becoming more aware of their own biases and in considering psychological aspects that may have a big influence on their investment choices. Investors can make better decisions and manage their portfolios by being aware of these tendencies. Investors can boost returns, better manage risk, and make more informed decisions with the aid of behavioral finance.

Investors ought to stay current on the most recent advancements in the subject of behavioral finance because it is a constantly developing area of study. Investors should also take into account the recommendations of a financial advisor or other experts when making investing selections Boussaidi (2022).

understanding the reason behind investment decision making and how financial theories like EMH are ineffective to understand market variances and human behavior. Overconfidence bias is among the important constructs that affect people's judgment and cause them to overestimate their competencies and likelihood of success in the market (De Bondt & Thaler, 1995). This research is beneficiary or academician, stock market investor as well as financial market managers so they can understand stock market behavior.

Traditional finance and behavioral finance can work together to create a more comprehensive approach to financial decision-making. Traditional finance provides a structured approach to understanding financial markets and investments, while behavioral finance adds a layer of understanding to the decision-making process by considering the psychological aspects of financial decision-making. By combining the two, investors can better understand the implications of their decisions and make more informed decisions. Additionally, research has shown that the combination of traditional and behavioral finance can lead to improved portfolio performance and a greater understanding of the financial markets.

Traditional finance models are inadequate in capturing the complexities of financial decision-making, and that behavioral finance is an important factor in understanding the financial decision-making process. The paper concluded that incorporating behavioral finance into traditional finance models can help to improve the accuracy of financial decisions and the overall efficiency of the financial market. Maksimovic (2020), the same psychology Decision-making is common in fields including sociology, mathematics, economics, political science, and statistics (Kahneman & Tversky, 2013). As a result, (Kahneman & Tversky, 1979) describe in their examination of "Prospect theory: An analysis of decision under risk" confronted the assumption of rationality, and demonstrated that in the presence of uncertainty, people act indifferently if they have alternatives to choose from. Individuals exhibit risk aversion behavior when they have a guaranteed return and risk seeking behavior when they have certain losses. As a result, (Kahneman & Tversky, 1979) this research became a forerunner in human psychology, which includes financial market decision making.

As was already mentioned, the fundamental tenet of classical finance is that agents are rational and markets are efficient. Observing high trading volume is viewed as puzzling in such an ideal world, where investors are rational investors and markets are efficient. In a world with perfect rationality, Statman (2003) contends that it would be highly challenging to justify any trading activity. Milgrom and Stokey (1982) and Grossman (1976) observe that an Offers to trade serve as a warning to potential adversaries that the trader could possess sensitive information. Trading volume is equal to zero as a result of rational traders' refusal to trade in such circumstances. To escape the no-trading trap, Kyle (1985), Admati and Pfleiderer (1988), and Foster and Viswanathan (1990) introduce the function of liquidity traders, although this remedy is insufficient. Subrahmanyam (1991) goes on to demonstrate that sensible liquidity traders only trade baskets of assets and stay away from trading individual securities. However, as the pricing of baskets depends on the pricing of the underlying securities, baskets of securities cannot be traded without individual stocks first being traded. Statman (2003).

Then, Harris and Raviv (1993) and Shalen (1993) try to break the equilibrium of no trading by using traders who have different opinions about shared information. But it is still unclear why reasonable traders might interpret common information differently. Statman (2003). after a review of the relevant literature, it was discovered that overconfidence bias is not only associated with trading errors, forecasting errors, portfolio losses, and insufficient diversification, but it also has a relationship with investor decision making.

4. PROSPECT THEORY

Amos Tverskey and Daniel Khaneman established prospect theory, which is seen as the conceptual bedrock of behavioral finance (1979). The theory is based on the premise that when face uncertainty, people's intuitive predictions and judgements do not follow statistical principles or the law of probability. prospect theory and overconfidence are both important phenomena that can have a large impact on decision-making and behavior. Prospect theory suggests that people are more likely to take risks when faced with losses, and less likely to take risks when faced with gains. Overconfidence, on the other hand, has been found to

lead to over-investment in high-risk activities, even when the expected payoff is low. Both of these phenomena can lead to poor financial decisions and can be difficult to manage. Therefore, understanding and managing the effects of prospect theory and overconfidence are important considerations in any financial decision-making process. The Prospect Theory of Behavioral Finance provides a useful framework for understanding how individuals make financial decisions. It highlights the importance of psychological factors, such as risk aversion and loss aversion, in influencing the choices people make with their money. The theory also provides insight into how people value gains and losses differently, and how they respond to changes in the prospects of their investments. It is clear that the Prospect Theory of Behavioral Finance has important implications for the practice of financial management and for the design of financial markets. Dempster (2020). Prospect Theory and Behavioral Finance provide a valuable framework for understanding how investors make decisions. it can help by explain why investors often make decisions that are inconsistent with traditional economic models. There are two theories can help explain the differences in risk preferences between individuals, as well as the effects of framing and loss aversion on investment decisions. In other words, prospect theory serves as a stronger descriptive model of decision-making under uncertainty than expected utility theory. The certainty effect and the isolation effect are both the foundations of the hypothesis. The latter relates with the inconsistent preferences people display when the same choice is presented in various contexts and ways, whereas the former leads to risk aversion in situations where certain benefits are guaranteed and risk seeking in situations where certain losses are guaranteed. The theory also offers a particular model of choices, in which the value of each decision is allocated to each gain and loss independently rather than to the total wealth that is ultimately realized. Concave for gains and convex for losses, the value function is "S" shaped, passing through a reference point. This shape explains how people behave as risk-averse people in the realm of gains and loss-averse people in the domain of losses because they feel the impact of losses more than gains.

5. BEHAVIORAL FINANCE

Behavioral finance is a new paradigm that sheds light on the psychological aspects that influence how investors make financial decisions Barber and Odean (1999). It highlighted the importance of taking into account psychological factors in financial decision-making. Studies have shown that investors' decisions are often driven by their emotions, which can lead to suboptimal outcomes. Additionally, investors' behavior is influenced by their biases and heuristics, which can lead to irrational decisions. investors' decision-making can be affected by their social and cultural environment. By taking into account these psychological factors, investors can make better decisions and achieve better financial outcomes Barberis (2003). behavioral biases can have a significant impact on financial decision-making. Investors may be subject to a variety of cognitive biases, leading to an over- or under-weighting of certain stocks or sectors, or to the purchase of stocks at overvalued prices. These biases can lead to poor investment decisions and can have a significant impact on portfolio performance. Thus, it is important for investors to be aware of their biases and to take steps to mitigate them wang (2022). Behavioral finance has revealed a lot about how investors behave and how their decisions are influenced by their behavior. Behavioral finance has shed light on how investors process information, form beliefs, and make decisions that can have both positive and negative consequences. It is significant to study the psychological and cognitive biases that can lead to poor investment decisions. Furthermore, it has emphasized the importance of investors being aware of the potential pitfalls that can arise from these biases and taking steps to mitigate them. Investors can improve their chances of making better investment decisions and meeting their financial objectives by doing so. Hirshleifer (2021). Consequently, the new discipline aims to comprehend financial phenomena that old models were unable to evaluate. "Behavioral finance seeks to explain and expand our understanding of the reasoning patterns of investors, including the emotional process involved and the extent to which they influence the decision-making process," state Riccardi and Simon (2000) in their definition of the field. Essentially, behavioral finance aims to provide a human perspective explanation of the what, why, and

how of finance and investing. The introduction of behavioral finance in the 1980s: (R. Thaler, 1980) reviewed economic theories that analyze how buyers make purchasing decisions. According to (R. Thaler, 1980) economic theory is a mixture of normative and positive theories and it rely on "rational maximization model". Consumers base their purchasing decisions on the information available in the market, and using that information, they make rational decisions based on their interests. several studies in the field of BF were conducted to support BF in the mainstream, primarily in academics. Academicians' focus, according to (Duxbury, 2015), moved to use econometric analysis to study time series data in the direction of behavioral theories that look into how human psychology affects the financial markets. Following that, Thaler and Shiller created the "National Bureau of Economic Research Conference" in 1991. placing a focus on behavioral finance. Human emotions play a significant part in understanding financial decision-making, and the topic of behavioral finance was founded during the psychological revolution of the 1990s (Hong, 2007; Miaszewicz, 2019). Faulkner, (2002). The development of psychological theories and the advent of behavioral finance worked well together to improve understanding of behavioral influences on financial decision-making (Dhankar & Maheshwari, 2018), (Mushinada2020) (Zahera & Bansal, 2018). in the subject of behavioral finance, and behavioural finance identifies human errors as the cause of those anomalies (Jensen, 1978). (De BONDT & THALER, 1985). Although this area of behavioral finance seeks to understand how institutional and individual investors make decisions and how markets behave (Neelakantan, P.R., 2015) Based on an investor's behavioral characteristics and the information they are given about the market or stock, BF bases investment decisions and market outcomes (Baker & Wurgler, 2007). Conclusion: When making suboptimal investment decisions, investors act irrationally, which affects the effectiveness of the capital market and their wealth (Baker, H.K. and Nofsinger, J.R. eds., 2010). The crucial work on this topic by Adam Smith dates back to the 18th century. The Theory of Model Sentiment (1979) and Wealth of Nation (1776), which describe how individuals behave in ways that influence their economic, Decision-making in social and economic contexts with emphasis on the importance of emotions. "Human desire for happiness makes it hard for

people to make a decision that is fully devoid of emotions," claim (Bentham, J., 1781) and (Bentham, J., 1948). According to (Selden, G.C., 1912), the change in share price is caused by the actions of investors. In the arena where scholars discuss the importance of psychology in economic behavior, there are a lot of criticisms. The 1960s and 1970s saw the introduction of a new area of finance where psychologists were involved. So many heuristics and biases are discovered by researchers studying economic decision-making (Chapadia, C.V., 2014). The Nobel Prize winners and "Father of Behavioral Finance" are Kahneman and Tversky. They acknowledge the vast majority of the effort put in in the BF discipline. Cognitive Psychology In 1974, they published a paper titled "Judgment and Uncertainty: Heuristics and Biases," in which they identified three biases/heuristics called: representativeness, anchoring, and availability. Their first paper, titled "Belief in the Law of Small Numbers," was published in 1971In their research, Tversky and Kahneman (1974) came to the conclusion that people will make better decisions in uncertain situations if they understand the three biases mentioned above. The study of behavioral finance helps people comprehend how investors behave and how their psychological makeup has a big impact on stock prices. According to Pombian's definition from 2007, "Cognitive psychology is the scientific study of cognition, or the mental processes thought to be responsible for regulating human behavior. Memory, attention, perception, knowledge representation, reasoning, creativity, and problem-solving are some of the areas of study in cognitive psychology. The cognitive psychology first appears in the late 1950s and early 1960s, but it doesn't really take off until 1958, when Donald Broadbent published his book "Perception and Communication." A cognitive psychology model of information processing was first presented by Broadbent. The model models mental processing using computer software (brain). Broadbent asserts that the concepts of input, representation, computation, and output are used to characterize human cognition. In the meantime, from the standpoint of preferences, investors may produce distortions when they assess risky bets because of emotional biases, like regret and loss aversion. The greatest hypothesis to explain the prevalence, reasons for, and consequences of human errors (preferences) that happen when making

decisions in uncertain circumstances is the prospect theory put forth by Kahneman and Tversky in 1979.

6. OVERCONFIDENCE AND BEHAVIORAL FINANCE MODELS

In many behavioral finance models, overconfidence is often seen as an irrational belief in one's own abilities or judgments, leading to overestimation of one's own capabilities. overconfidence is often interpreted as:

- Investors are overly confident in their own information, often failing to adequately consider the public signals available.
- investors not properly assessing the potential risks associated with their portfolios, leading them to hold riskier investments.

As a result, taking into account the possibility of such overconfidence, the influence of overconfident investors is examined to determine how they affect the financial markets. Anomalies in the market, such as high trade volumes, profitable trading, short- and long-term asset devaluations, and stock returns, are manifestations of these impacts. We will highlight the key behavioral theories that explain how overconfidence bias affects trading behavior and return in the section of the chapter that follows.

7. OVERCONFIDENCE IN PSYCHOLOGY

overconfidence is a psychological bias which is often found in investment decision making. This bias can be explained in terms of cognitive errors, such as the self-attribution bias and the hindsight bias. Additionally, overconfidence can be explained in terms of the availability heuristic, which suggests that people tend to overestimate the probability of events that are easily recalled. Overconfidence is a psychological bias which is often found in investment decision making. This bias can be explained in terms of cognitive errors, such as the self-attribution bias and the hindsight bias. Additionally, overconfidence can be explained in terms of the availability heuristic, which suggests that people tend to overestimate the probability of events that are easily recalled. Overconfidence in investment decision making is a psychological bias that is likely to have a detrimental effect on an

investor's financial performance. investors need to be aware of their potential for overconfidence and guard against it in order to make sound decisions (Davey2020). overconfidence is a psychological bias which is often found in investment decision making. This bias can be explained in terms of cognitive errors, such as the self-attribution bias and the hindsight bias. Additionally, overconfidence can be explained in terms of the availability heuristic, which suggests that people tend to overestimate the probability of events that are easily recalled. Availability heuristic, which suggests that people tend to overestimate the probability of events that are easily recalled. Investors' expectations of their own abilities can have a significant impact on their investment decisions and should be taken into consideration when evaluating their decisions. Overconfidence can be a double-edged sword and should be managed carefully to ensure that it does not lead to overly risky investments that may not be in the best interests of the investor (Mehta and D'Souza 2020).

8. OVERCONFIDENCE BIAS ON THE INDIVIDUAL INVESTORS' LEVEL

the relation between overconfidence and excessive trading volume is established on the same data set by Barber and Odean (2001). Evidence suggests that overconfident investors typically take on more risk, hold more concentrated positions, and trade more frequently, all of which can lead to poorer performance and higher transaction costs. To mitigate these risks, investors should strive to diversify their portfolios and employ more disciplined trading strategies. With these strategies in place, investors may be able to improve their performance while reducing their risk they should recognize the detrimental effects of overconfidence on their investment decisions, such as increased trading frequency, higher risk-taking, and lower performance. To combat these effects, investors should implement diversification strategies and develop disciplined trading habits. This will help improve their performance while reducing their risk (Busenitz, Rapoport & Burton, 2020) Doing so can help them improve their performance and reduce risk. Investors should be cognizant of the potentially damaging effects of overconfidence on their decision-making and behavior. Terrance Odean and his co-authors, in their widely cited works (Odean 1999;

Barber, Odean 2000; 2001), analyze trading data of individual investors obtained from a major US brokerage firm. By doing so, they examine how overconfidence evolved from a psychological side-effect that was neglected to a factor that is widely acknowledged as affecting the financial markets and investor behavior. Despite the challenges in locating appropriate financial data, this field of study begins to grow in response. As evidenced by frequent portfolio turnover, he discovers that heavy trading does not always result in higher revenue. Individual investors have an overconfidence bias. The effects of overconfidence on individual investors' decision-making, as well as the impact of overconfidence on portfolio performance, the role of overconfidence in financial market bubbles, and potential strategies to mitigate overconfidence bias are all discussed. include the fact that individual investors are susceptible to overconfidence bias, which can result in suboptimal portfolio performance, and that strategies such as diversification and financial education can be effective in mitigating the effects of overconfidence Park (2020). People deviate significantly from the financial models' predictions of rational behavior (Barberis, 2003). Recognizing the empirical limitations of the homo economics model for studying private individual behavior, behavioral finance broadens the perspective by fusing information from psychology and economics (Camerer and Loewenstein, 2004). Our investigation focuses on the attitudes and behaviors associated with everyday money.

9. OVERCONFIDENCE BIAS AND INFORMATION ACQUISITION

that overconfidence leads to costly information acquisition behaviors in financial decision making. Overconfident investors tend to acquire more information than necessary, which leads to suboptimal decisions. This result has important implications for financial advisors, as it suggests that investors should be made aware of the potential costs of overconfidence in financial decision making. Additionally, investors should be mindful of the potential of overconfidence to lead to information acquisition biases and should be encouraged to seek advice and engage in more deliberate decision making (Jessica 2020). overconfidence bias has an effect on the amount of information acquired in a decision-making context. when people overconfident

about their performance on a task, they were more likely to acquire more information about the task. However, overconfidence bias did not necessarily lead to improved decision-making outcomes. This suggests that people may be acquiring more information than is necessary in order to make accurate decisions (Wang 2019). overconfidence bias significantly impacts information acquisition, with the effect varying depending on the type of information acquisition task, the characteristics of the decision makers, and the level of overconfidence (Wang 2019). overconfidence bias leads to less accurate decision-making, higher costs, and lower performance. organizations should consider techniques to reduce overconfidence bias, such as increasing transparency, providing feedback, and relying on outside sources of information. Furthermore, organizations should also recognize the potential for overconfidence bias in their own decision-making and take steps to mitigate it Logg et al, (2018).

10. OVERCONFIDENCE AND DEVELOPING FINANCIAL MARKETS

This paper examines the role of overconfidence in financial markets and its implications for the investor decision. overconfidence among professional forecasters may lead to higher expected returns in the stock market. In developing financial markets such as India, investor overconfidence can lead to market inefficiencies and can have a significant impact on performance (Vanoverberghe 2021). Overconfidence can result in investors making irrational decisions, which in turn can lead to mispricing of stocks and inefficient capital allocation. The presence of overconfidence increases the risk of misallocation of capital and can have a negative impact on firm performance. The aim of the study is to investigate whether investors with overconfidence engage in more aggressive trading. It is assumed that higher turnover is associated with higher past returns, indicating that overconfidence is a result of worse performance in the past. an empirical study investigates the investor overconfidence in Ghanaian stock market. Investors in the Ghanaian stock market are more likely to overestimate their own abilities and tend to be excessively optimistic about their own stock investments. overconfidence can lead to the misallocation of resources, resulting in suboptimal outcomes.

overconfidence is a significant factor in influencing the trading volume and stock returns of the Ghanaian stock market. The findings of this paper can provide useful insights to policy makers in developing countries who are looking to improve the efficiency and performance of their financial markets (Kabutey2020). Another study by (Bhatia& Sharma, 2019) suggest that overconfidence is an important factor influencing individual investor trading behavior in the Indian stock markets. Investors tend to display overconfidence in their decisions, resulting in higher portfolio turnover and trading volume, greater portfolio risk taking and larger trades. Overconfidence also induces investors to take on greater risk in their portfolios, resulting in lower portfolio returns. Overall, these results indicate that individual investor overconfidence has a significant impact on investment behavior in the Indian stock market.

11. EMPIRICAL STUDIES OF THE OVERCONFIDENCE BIAS IN FINANCIAL MARKETS

Despite numerous experimental and questionnaire studies, as well as a rapidly developing field of theoretical modeling, empirical analysis of financial market data is regarded as the cornerstone of studying the overconfidence bias. According to empirical studies, in recent years, research has suggested that investor overconfidence can influence decision making. Overconfidence is defined as an overestimation of one's own ability, knowledge, or judgment. It is frequently observed in investors who overestimate their ability to make sound decisions or forecast outcomes. Investor overconfidence can lead to overtrading and other costly behavior. Overtrading can result in higher trading costs and increased risk. Furthermore, it can result in over- or under-diversification, which can increase portfolio risk. Overconfidence can also lead to a preference for high-risk investments and a lack of diversification (Odean2008). Recent empirical studies of the overconfidence bias in financial markets have discovered that investors overestimate the accuracy of their investment predictions. Specifically, investors tend to overestimate their ability to forecast asset performance in the future, resulting in excessive trading and higher costs. The evidence suggests that when making financial market decisions, investors are prone to overconfidence, which can have a

negative impact on their return. Furthermore, the studies suggest that investors can reduce the impact of the overconfidence bias by becoming more aware of it and employing strategies such as diversification and risk management. Lu et al. (2016), found that investors were more likely to overestimate their forecasting accuracy when stock prices were rising, as compared to when stock prices were falling. Additionally, the authors found that investors were more likely to overestimate their forecasting. in another study, Stambaugh et al. (2018) found that investors were more likely to overestimate their forecasting accuracy when they had a relatively high level of financial knowledge. Additionally, the authors found that investors with a higher degree of overconfidence were more likely to trade more frequently and to have lower portfolio returns.

Other studies have found that investors with greater levels of overconfidence were more likely to overestimate the return of stocks they had previously invested in (Beck et al., 2017; Wang, 2018). Additionally, the authors found that investors with higher levels of overconfidence were more likely to take on greater financial risks. Overall, these studies suggest that investors often overestimate their ability to accurately forecast stock prices and that this overconfidence can lead to increased trading activity and lower portfolio returns. the findings indicate that investor overconfidence can have a significant impact on decision-making. Investors who are overconfident in their ability to make sound decisions are more likely to take on excessive risk and engage in risky trading behaviors. As a result, investors must be aware of their own levels of overconfidence and adjust their investment strategies accordingly. Recent research has shown that overconfidence on the part of investors can lead to poor investment decisions.

Overconfidence can lead to investors becoming overly optimistic, overestimating the accuracy of their own judgments and the breadth of their own knowledge, overestimating their ability to predict the future, and taking excessive risks. This can result in insufficient diversification, overtrading, and underestimation of the risks associated with specific investments. Furthermore, overconfident investors tend to pay too much attention to information that supports their own views and ignore contradictory evidence. This can make it difficult for them to

accurately interpret information and make informed decisions. Overconfidence, in the end, can lead to investors making decisions that are not in their best interests M. (2019).

12. THE EGYPTIAN STOCK MARKET TRADING BEHAVIOR

The Egyptian stock market has experienced significant growth in recent years, with the EGX 30 increasing over 500% in the past decade. This growth was driven by strong macroeconomic performance and the emergence of new and innovative financial instruments, including the introduction of derivatives and exchange-traded funds. The Egyptian government has also provided support through a variety of regulatory measures, such as the establishment of the Egyptian Exchange and the Financial Regulatory Authority. the Egyptian stock market has great potential and provides many opportunities for investors. However, there are also significant challenges that need to be addressed in order to ensure the optimal functioning of the stock market and the development of a healthy investment climate. These include the need to improve transparency, corporate governance, and market infrastructure as well as to increase investor awareness and education. Additionally, measures must be taken to reduce regulatory uncertainty, increase liquidity, and improve the efficiency of the market. A successful and well-functioning stock market is essential for the development of the Egyptian economy, and the government must work to ensure that these challenges are addressed (Abdel-Ghani2020). Another study by Ramadan and Elkhatib (2015) identified a number of factors that may have an impact on the market, such as macroeconomic conditions, foreign investment, and the structure of the Egyptian capital market. Therefore, it is important to take into consideration these factors in order to ensure the long-term success of the Egyptian stock market. Anasary and Attuea (2012) looked at the connection between trading volume and stock return. The study examines the Egyptian Stock Exchange's information arrival trend. From 2001 to 2010, 26 securities from the 30 listed businesses on the EGX were included in the sample. The study reveals a number of intriguing findings, including a positive correlation between trading volume and return (using the logarithms of turnover ratio and transaction number as measures of

trading volume), a weak but highly significant contemporaneous relationship between trading volume and return (using both measures), and evidence of noise traders in the market. The findings of Omran and Girard (2007) and El Diftar are consistent with those of the study (2008). Additionally, a negative lagged relationship was found using lag times of two and five days between trading volume (using both measures) and return, indicating that rising (falling) trading volume in the previous two and five days was accompanied by falling (rising) return, and vice versa. This result contradicts the findings of earlier studies and demonstrates how the Egyptian security market differs from other emerging and developed markets. Additionally, they claim that persistence and clustering are characteristics of return in the Egyptian security market, providing proof that the market is informationally inefficient.

13. RESEARCH METHODOLOGY

This research aims to examine the effect of information acquisition on the relationship between overconfidence bias and investor decisions in the Egyptian stock exchange. To do this, survey questionnaires were distributed to individual investors trading in the Egyptian stock exchange in order to collect cross-sectional data.

14. RESEARCH APPROACH

The Hendry Method (also known as the Least Squares Estimation approach) is a widely used econometric methodology and is the main method used in empirical research in economics and other social and behavioral sciences.

Table 1

The Steps	(Hendry Method)
Problem statement.	Examining the relationship between the overconfidence bias and the investor decisions.
Specification of the statistical model	$Y=a+bX$ (Overconfidence bias) =X (Investor decisions) =Y
Obtaining the data.	Selected random sample.
Estimation of the parameters of the econometric model.	For the OLS Equation: evaluating F value and R square For the LS predictors (IVs): evaluating b, SE, Beta and t value
Hypothesis testing	Evaluating the analytical outcomes.
Conclusion and Forecasting.	Investors should be cautious of the potential pitfalls of overconfidence when investing in the stock market, as it can lead to poor decision-making. To prevent this, they must be aware of the risks associated and take the necessary steps to avoid overestimating the accuracy of their data and the reliability of their choices

15. RESEARCH DESIGN

The predictive research design used to investigate the influence of overconfidence bias (independent variable) on investor decisions (dependent variable), taking into account the influence of information acquisition (Moderate variable). Predictive studies are used to develop statistical methods that can be used to accurately forecast the probable value of a continuous measure, or the likelihood of an event occurring in the short or long term. It is used in stock market analysis, index numbers, time series analysis, seasonal effects, and economic forecasting. Although the phrase "predictive research design" is not frequently used, the scientific method aims to make predictions. Correlation, regression, and multiple regression analyses are used as a non-experimental methodology to establish and assess the link between variables, so making it possible to forecast changes in the dependent variable based on these relationships. Forecasting (predicting) outcomes, consequences, or impacts is the main focus of predictive research. This kind of research aims to forecast something that hasn't been attempted, tested, or recommended previously by extrapolating from the investigation of existing phenomena, policies, or other entities. Often times, a predictive research project explores how something might work, how well it might work, or what the potential impact of something might be. Predictive research frequently involves more speculative, theoretical, or experimental ideas than prescriptive (Normative) research does. It relates to concepts that have not been attempted, may not be testable, or have never been thought of before. The predictive paradigm tries to predict the future of something, much like a crystal ball. (Field: 2009)

15. 1 the predictive research design (PRD) as data analysis activity

Predictive research design (PRD), for example, became a crucial tool for the evaluation and verification of design solutions, particularly in industry, between the 1980s and the early 1990s. Yet, there were numerous challenges in implementing (PRD) in industrial practice, and as a result of this development, extra expenditures started to weigh down on the economy in many analysis jobs. These restrictions limited the usage of (PRD) to applications where the complexity of the

geometry, load cases, materials, etc. was such that traditional analytical approaches did not produce any results or did so in a questionable manner.

The circumstance led to research initiatives aiming to broaden the use of (PRD) to encompass the preliminary stages of engineering design activities. The shift from verification to predictive analysis, which acknowledges the importance of foretelling the state of behavior of the product-to-be with greater accuracy and precision than provided by the traditional design analysis methods, was thus the most significant benefit of applying design analysis early in the engineering design process. 2015 (Eriksson)

15. 2 the predictive research design (PRD) and the Confidence in predictions

The need for improved design analysis integration into the engineering design process, as well as an increased level of confidence in the design analysis process as a whole and in the results obtained, is driven by the growing demands and constraints in planning, carrying out, controlling, and monitoring a design analysis task as well as in documenting and communicating the results obtained. However, this demand for more assurance necessitates the creation of the proper tools and techniques. Even more assurance in the design analysis process and its outcomes is needed in instances when it will replace more conventional validation and certification approaches. This need for more assurance is a crucial component of (and prerequisite for) securing management's support for investing in the tools and subject-matter expertise necessary to support a long-term, sustained use of design analysis in an industrial setting. (Ullman2010).

15.3 The predictive research design (PRD) as Research objective

The research project described here is based on the original conceptual framework of the (PRD) concept, and it aims to investigate and provide the fundamentals enabling the development of a full-fledged methodology that empowers the utilization and benefits of design analysis to ensure increased confidence in both the predictions of design parameters and their influence on the behavior of the methodology as a whole. In this work, a methodology is defined as a

process model that also includes a group of activities and the associated approaches, techniques, and tools. The research contained in (PRD) also supports the perception of a potential for increased use of design analysis tools within the engineering design process, which, when introduced properly, allows for design analysis to be a constituent part of future engineering design processes and, consequently, of the general process of product development and product innovation. In other words, the goal of the approach is to enable the construction of a future operational technique that offers the potential for a better utilization of design analysis' full potential inside the engineering design process. (Salkind2010)

16. RESEARCH HYPOTHESES

Based on previous literature review, the following hypothesis are tested:

Dependent Variable:

Investors' Decision

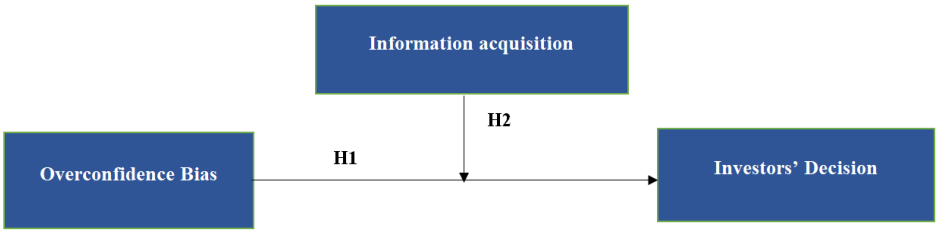

Figure 1- 1: Research Model

H_1: There is a significant relationship between the overconfidence bias and investor decisions.

H_2: The information acquisition moderates the relationship between overconfidence bias and investor decisions.

17. MEASUREMENTS

17.1 Decision of the Investors: The dependent variable was scaled by the following 13 items: (Mushinadaand & Veluri :2019)

1- Buy and sell stocks frequently
2- Need fulfilment.
3- Acquiring and exercising voting rights in a company.
4- Family, relatives and friends.

5- Brokers, analysts or investment consultants.
6- Financial performance of the company.
7- Past experience.
8- Economy and market trend.
9- Newspapers, magazines or published documents
10- Future growth of the industry.
11- Stock's price movement.
12- Increase wealth.
13- Transaction costs

17.2 Overconfidence Bias: the independent variable was measured by 7 items as follows: (Mushinadaand & Veluri :2019)

1- Mastering the future trend for investment.
2- Controllability and responsibility for results from investment.
3- Profit from successful investment strategy.
4- Consistency of market trend with views and opinions.
5- Profit due to sense of care and caution.
6- Certainty of making correct investment decision.
7- Successful expectations triggering investment

Ref: Mushinada, V. N. C., & Veluri, V. S. S. (2019). Elucidating investors rationality and behavioral biases in Indian stock market. Review of Behavioral Finance, 11(2), 201–219.

17.3 Information acquisition: the moderating variable was measured by (Loibl and Hira: 2009)

1- Internet search.
2- management software or Investment analysis.
3- Market monitoring websites.
4- online trading
5- Financial advisor.
6- books, magazines, or newspapers.
7- TV programs.
8- Classes or workshops.
9- newsletters.
10- Radio programs.
11- Colleagues and friends.
12- Investment clubs.
13- Workplace.

Ref: Loibl, Cäzilia C. & Hira, Tahira K. (2009). Know your subject: A gendered perspective on investor information search. Journal of Economic Psychology, 30(2009), 20-41.

Table 2: Summary of Variables and Total Number of Items

Variable	Number of items	Sources
Investor decision	13Items	(Mushinadaand & Veluri :2019)
Overconfidence bias	7 items	(Mushinadaand & Veluri :2019)
Information acquisition	13 items	(Loibl and Hira :2009)

Five-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree) was applied to measure the studied variables weighted as (5-4-3-2-1).

18. SAMPLING

The population of this study consists of the individual investors trading on the Egyptian Stock Exchange (EGX30), who can trade securities both online and on the market floor. In Egypt, there are about 175,000 individual investors as of 2022(Magdy2023). proposed a sample size of 384 observations to establish the necessary sample size a very large population.

19. RELIABILITY ASSESSMENT

A high-quality test must include a reliability test as a key element. It displays the consistency with which a metric is used. The test performs better as dependability increases. Cronbach's Alpha measurement is the most used and trustworthy test. The range of the Cronbach's Alpha coefficient is 0 to 1. If the coefficient is higher than 0.7, reliability is considered to be adequate. 2015 (Cho & Kim)

The following tables show the results of the validity and reliability tests.

The dependent variable (Investors' Decision): The option of Cronbach's Alpha if items eliminated was active because the findings for the dependent variable (Investors' Decision) showed that alpha was.697 and statistically not accepted

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
.697	13

Table 4: Item-Total Statistics (Investors' Decision)

Items (Investors' Decision)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	The Statistical Decision
1-Need fulfilment.	42.7474	30.419	0.495	0.658	Accepted
2-Buy and sell stocks frequently.	42.737	30.821	0.47	0.662	Accepted
3-Acquiring and exercising voting rights in a company.	42.2865	30.664	0.524	0.656	Accepted
4-Increase wealth.	42.9115	29.444	0.403	0.667	Accepted
5-Family, relatives and friends.	42.9766	36.258	-0.084	0.731	Rejected
6-Newspapers, magazines or published documents.	42.7969	36.523	-0.099	0.726	Rejected
7-Brokers, analysts or investment consultants.	42.7005	31.751	0.263	0.689	Accepted
8-Past experience.	42.2448	31.178	0.383	0.672	Accepted
9-Economy and market trend.	42.8021	32.812	0.237	0.691	Accepted
10-Future growth of the industry.	42.6302	31.127	0.424	0.667	Accepted
11-Financial performance of the company.	42.3307	30.426	0.44	0.663	Accepted
12-Stock's price movement.	42.8698	29.153	0.433	0.662	Accepted
13-Transaction costs.	42.8724	30.764	0.347	0.676	Accepted

Table 5: Reliability Statistics

Cronbach's Alpha	N of Items
.765	11

The Cronbach's Alpha was retested after two items (Family, friends, and relatives) and (Newspapers, periodicals, or published documents) were eliminated. The findings showed that alpha =.765 and was statistically valid.

The independent variable (Overconfidence Bias):

Table 6: Reliability Statistics

Cronbach's Alpha	N of Items
.843	7

the independent variable (Overconfidence Bias) had an alpha of.843, which was statistically significant.

The information acquisition moderator is:

The option of Cronbach's Alpha if items deleted was activated since findings for the moderating variable (Information acquisition) showed that alpha was.548 and statistically not accepted:

Table 7: Reliability Statistics

Cronbach's Alpha	N of Items
.548	13

Table 8: Item-Total Statistics (Investors' Decision)

Items (Investors' Decision)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	The Statistical Decision
1- General internet search.	42.7630	33.184	0.557	0.670	Accepted
2- Investment analysis or management software.	42.7526	33.586	0.536	0.674	Accepted
3- Email investment newsletters.	42.3021	33.444	0.588	0.669	Accepted
4- Market watch websites.	42.9271	32.204	0.459	0.679	Accepted
5- Internet trading.	42.9609	33.343	0.431	0.684	Accepted
6- Newspapers, magazines, newsletters, or books.	42.8177	40.708	-0.103	0.742	Rejected
7- TV programs.	42.7526	41.597	-0.178	0.757	Rejected
8- Radio programs.	42.2578	33.508	0.481	0.764	Rejected
9- Financial advisor.	42.8151	35.101	0.347	0.696	Accepted
10- Friends or colleagues.	42.6432	33.395	0.515	0.675	Accepted
11- Classes or workshops.	42.3516	34.088	0.452	0.683	Accepted
12- Investment clubs.	42.9245	39.417	-0.020	0.743	Rejected
13- Workplace	42.8880	33.494	0.411	0.687	Accepted

Cronbach's Alpha was retested after four items (Newspapers, periodicals, newsletters, or books), (TV programmes), (Radio programmes), and (Investment clubs) were left out. The findings showed that alpha =.799 and was statistically valid.

Table 9: Reliability Statistics

Cronbach's Alpha	N of Items
.799	9

20. VALIDITY ASSESSMENT

Bootstrap is a useful method for ensuring that the variables (or analytical model) are legitimate and will yield reliable findings (Deng and Ware, 2012). It can be used to evaluate the consistency of statistical methods, such as the mean standard deviation and standard error of the mean, and to study the quality of fit by modifying the confidence ranges for population characteristics. For estimates like the mean and standard deviation, bootstrapping is a method for determining reliable estimates of standard errors and confidence intervals. It can also be

applied to developing hypothesis tests. (Chernick and LaBudde2012) The primary statistical approach used to assess the relative validity is called bias corrected accelerated (BCa). The skewness and bias in the bootstrap estimate distribution are being corrected using BCa. Two parameters need to be estimated for the BCa interval. First off, the percentage of bootstrap estimates that are lower than the observed value is connected to the bias-correction parameter 0. Second, the acceleration factor, which is calculated by creating n duplicates of the original sample using random number generators, is proportional to the skewness of the bootstrap distribution (Wicklin ,2017). The BCa method involves replacing the original sample thousand times in order to lessen measurement bias. Following this replacement, we test the correctness of the data based on this rotation. Hence, assuming the bootstrap method is correct, the outcomes of the thousand random replacements are nearly identical to the initial results. This demonstrates that our data are relatively genuine or accurate (Chernick, 2011).

Table 10: Bias Corrected Accelerated (BCa) Method

Bootstrap (BCa) Method

		Statistic	Std. Error	Bootstrap			
				Bias	Std. Error	BCa 95% Confidence Interval	
						Lower	Upper
Dependent V	N	384		0	0	.	.
	Minimum	40.00					
	Maximum	55.00					
	Mean	46.0443	.18346	.0039	.1833	45.6506	46.4167
	Std. Deviation	3.59513		-.00742	.10863	3.37145	3.77818
	Variance	12.925		-.042	.777	11.365	14.277
Independent V	N	384		0	0	.	.
	Minimum	20.00					
	Maximum	31.00					
	Mean	24.9844	.12891	-.0022	.1304	24.7293	25.2500
	Std. Deviation	2.52606		-.00247	.09344	2.34410	2.70388
	Variance	6.381		-.004	.472	5.494	7.317
Moderating V	N	384		0	0	.	.
	Minimum	40.00					
	Maximum	52.00					
	Mean	45.9714	.15335	.0043	.1536	45.6491	46.2917
	Std. Deviation	3.00508		-.00678	.08131	2.84932	3.14616
	Variance	9.031		-.034	.487	8.115	9.900
Valid N (listwise)	N	384		0	0	.	.
a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples							

The outcomes show how the standard error and bootstrap readjusting the confidence interval. The bootstrap BCa lower confidence level for the dependent variable (Investors' Decision) was (45.65) and the upper

confidence level for the dependent variable was 46. (46.42). The smallness value of the bootstrapped bias coefficient supports the conclusion that there is only a very minor shift in the standard error coefficient for both the mean and standard deviation. The bootstrap BCa lower confidence level for the independent variable (Overconfidence Bias) was 24.98 and the upper confidence level was 25.25 for this variable. The bootstrap BCa lower confidence level for the moderating variable (Information acquisition) was 45.97, and the upper confidence level was 45.65 for the moderating variable (46.29). The smallness value of the bootstrapped bias coefficient supports the conclusion that there is only a very minor shift in the standard error coefficient for both the mean and standard deviation.

The simple linear correlation:

The degree of association between the independent variable (Overconfidence Bias) and the dependent variable (Investors' Decision) is measured by the correlation coefficient. The direction and the significance level were determined using a simple linear Pearson coefficient.

Table 11: Correlations

		Dep	Indep
Dep	Pearson Correlation	1	-.427**
	Sig. (2-tailed)		.000
	N	384	384
Indep	Pearson Correlation	-.427**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between dependent variable (Investors' Decision) and the independent variable (Overconfidence Bias) was clarified by r Pearson value (-0.427), this confirms the negative and significant relationship between dependent variable (Investors' Decision) and the independent variable (Overconfidence Bias) at the level of (0.01).

Table 12: Correlations

		Dep	M
Dep	Pearson Correlation	1	.340**
	Sig. (2-tailed)		.000
	N	384	384
M	Pearson Correlation	.340**	1
	Sig. (2-tailed)	.000	
	N	384	384

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between the moderating variable (Information acquisition) and the dependent variable (Investors' Decision) was outlined by the r Pearson value (0.340). This value confirms the positive and significant relationship between the two variables at the level of (0.01).

21. HYPOTHESIS TESTING

Multiple linear regressions are used to demonstrate the distinctive contribution of the researched predictor. Regression was used in this study to examine the relationship between the independent variable (Overconfidence Bias) and the dependent variable (Investors' Decision). The regression analysis model is used in this part to test the hypotheses that are being studied.

H_1: There is a significant relationship between the overconfidence bias and investor decisions.

Table 13: Multiple Linear Regression

Independent Variables	B	Std. Error	BETA	t	Significant
Constant	59.788	1.579	-	37.875	0.000
Overconfidence Bias	-.578	0.063	-.427	-9.227	0.000

F value = 85.145**

Multiple R = 0.427

R Square =0.182

Std. Error of the Estimate= 5.5488

The findings show that the value of F is (85.145) and that it is significant at (.000), which supports the validity of the analyzed equation and the independent variable's capacity to account for the variance of the dependent variable.

the explained variance of the independent variables on their influence on the dependent variable (investors' decision), also known as the coefficient of determination (R Square). R Square value was (.182), which means that the independent variable (Overconfidence) accounts for around 18.2% of the variation in the dependent variable (Investors' Decision).

The overconfidence bias's B value was (-.578), Beta value was (-.427), and t value was (-9.227), with a significant level of 0.000, according to Table (13). This suggests that the overconfidence bias has a negative and substantial effect on the dependent variable (Investors' Decision). Hence, statistical evidence supports the first hypothesis H1.

The Regression Equation: Y=59.788+ (-5.578) X

H_2: The information acquisition moderates the relationship of overconfidence bias and investor decisions.

Table 14: Multiple Linear Regressions

Independent Variables	B	Std. Error	BETA	t	Significant
Constant	27.183	4.227	-	6.431	0.000
Overconfidence Bias	-.590	0.058	-.436	-10.199	0.000
Information acquisition	.716	.087	.351	8.217	0.000

F value = 83.742**
Multiple R = 0.553
R Square =0.305
Std. Error of the Estimate= 5.1202

The findings show that the value of F is (83.742) and significant at (.000), which establishes the validity of the investigated equation and the independent variable's capacity to account for the variance of the dependent variable.

The investor decision is the dependent variable, and information acquisition is the moderating factor. The coefficient of determination (R Square) refers to the explained variance of the independent variables on their impact on the investor decision. R Square value was (.305), which means that the independent factors account for around 30.5% of the variation in the dependent variable (Investors' Decision), which is influenced by the information acquired.

The B value of the overconfidence bias was (-.590), the Beta value was (-.436), and the t value was (-10.199), with the significant threshold at 0.000, according to Table (14). This suggests that the overconfidence bias has a negative and substantial effect on the dependent variable (Investors' Decision). The acquisition of information had a B value of (.716), a beta value of (.351), and a t value of (8.217), with a significant level of 0.000. This shows that the information acquisition has a favorable and significant impact on the dependent variable (Investors' Decision). Hence, statistical evidence supports the second theory.

The unique contribution of independent variable and the moderating variable

To demonstrate the significance of the investigated model, this section seeks to calculate the value of the distinct contribution of the independent variable and the moderating variable independently.

Table 15: Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.182	85.145	1	382	.000
2	.123	67.513	1	381	.000

a. Predictors: (Constant), Indep

b. Predictors: (Constant), Indep, M

The findings support the hypothesis that overconfidence bias alone accounts for about 18.2% of the variance in investors' decisions. Also, the moderating factor (information acquisition) by itself explained roughly 12.3% of the variance in the dependent factor (investors' decision).

22. DISCUSSION

The results of the study support the general findings of the financial literature. Regarding the effect of behavioral biases on investors. Behavior, specially overconfidence bias. (Fama, 1965). It is worth mentioning in this context, that such behavioral biases are expected to have a great effect in emerging markets. these markets are generally inefficient and lack institutionalization(ref)policy makers should give special attention to information acquisition by improving disclosure

and transparency. This may result in more sound and rational investment decisions by investors, which may be regarded as an important prerequisite for better performance of individual investors, especially in such die economic conditions.

23. CONCLUSION

The aim of the study is to look into the effect of overconfidence bias on the decision making of individual investors trading on the Egyptian Stock Exchange (ESX), as well as the moderating role of information acquisition on the relationship between the above biases and investor decisions. The study confirms previous findings concerning the impairment of individual investors' rationality due to overconfidence bias through extensive analysis appropriate and some of statistical analysis. The study confirms that overconfidence bias leads to suboptimal investment decisions.

Furthermore, the contributes to the existing literature by providing empirical evidence that information acquisition moderates the relationship between overconfidence bias and individual investor decisions. Simply put, improving information sources, quantity. and quality can assist overconfident individual investors in making rational investment decisions. From the above stated findings, study concludes that The Egyptian stock market is psychologically influenced as investor decision making is affected by overconfidence.

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تأثير انحياز الثقة المفرطة على قرارات المستثمرين في سوق الأسهم المصرية: دور اكتساب المعلومات

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ملخص البحث باللغة العربية

الهدف من هذه الورقة البحثية هو اختبار تاثير التحيزالناتج عن الثقة المفرطة على قرارات المستثمرين. تساهم هذه الورقة أيضا في فهم أفضل لدور الحصول على المعلومات في تعديل العلاقة بين التحيزات السلوكية وقرارات المستثمرين. تؤكد النتائج أن التحيزات السلوكية (التحيز المفرط في الثقة) تشوه عقلانية قرارات المستثمرين الأفراد، وأن الحصول على المعلومات يخفف بشكل كبير من العلاقة بين التحيز المفرط في الثقة وقرارات المستثمرين. تضيف هذه الدراسة إلى أدبيات التمويل السلوكي الحالية من خلال تسليط الضوء على الإمكانات غير المستغلة لاكتساب المعلومات في إدارة اللاعقلانية الناتجة عن التحيز المفرط في الثقة. يمكن للمستثمرين الأفراد الاستفادة من هذه الدراسة من خلال فهم أفضل للتأثير السلبي للتحيزات السلوكية وكذلك فائدة الحصول على المعلومات في التعامل مع اللاعقلانية الناجمة عن التحيز المفرط في الثقة. تحاول الدراسة الجمع بين أدبيات التمويل السلوكي واكتساب المعلومات لتوسيع الفهم النظري لقرارات المستثمرين.

الكلمات الدالة: تحيز الثقة المفرطة، اكتساب المعلومات، التمويل السلوكي، التمويل التقليدي، قرارت المستثمرين.

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