

Psychology of Investment Choices in Pakistan: Examining Overconfidence, Herd Behavior, and Risk Tolerance in Crypto and Stock Markets

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Abstract

The paper explores the psychological aspects of investment decision making in Pakistan in relation to overconfidence, herd behaviour and risk tolerance in stock and cryptocurrency markets. Primary data was gathered using a quantitative research design which used 250 active investors who filled the self-administered questionnaire. The relationships between the psychological factors and investment behavior were analyzed with the help of descriptive statistics, a reliability analysis and correlation analysis and structural equation modeling (SEM). Results show that the three psychological variables have a positive impact on investment decision, but risk tolerance is the most effective predictor. The findings underscore the fact that cognitive bias and social factors play a key role in influencing investor behavior especially in highly volatile markets like cryptocurrencies. The present research will not only give empirical support to the behavioral finance theories but also offers practical implications to investors, financial advisors and regulators in the emerging markets.

Keywords: Behavioral finance; Overconfidence; Herd behavior; Risk tolerance; Investment decision-making; Stock market; Crypto-currency; Pakistan

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INTRODUCTION

Traditional financial theories have been used long to explain investment decision-making, with the assumption that investors behave rationally, objectively gather information, and make decisions that maximize their expected utility. The classical models like the Efficient Market Hypothesis propose that the prices in the market are optimal and they are based on all available information and it is unlikely that systematic investor error can be made. But, the assumptions are not usually true in real life financial behavior. Investment decisions often are based on intuition, emotions and societal pressure and not the purely analytical reasoning. These aberrations have resulted in the development of behavioral finance, a discipline that incorporates the science of psychology in the financial decisions to explain why people tend to act irrationally in their unpredictable market settings.

This was a turning point in the field of financial psychology as Daniel Kahneman and Amos Tversky created the Prospect Theory which showed that people will have a different sense of gains and losses, and make their decisions using perceived outcomes instead of using rational probabilities (Kahneman and Tversky, 1979). Their article laid the foundation that cognitive biases and heuristics play an important role in determining financial decisions, and it does so in uncertain situations. Behavioral finance Since that time, human behavior in finance has also established a number of psychological forces that can determine how investors respond, with overconfidence, herd behavior, and risk tolerance being the most significant ones.

Overconfidence can be defined as a propensity of an investor to over rate his or her knowledge, ability to predict or even control financial performance. Studies have shown these overconfident investors to trade more and make unnecessary risks which tend to result into less overall returns (Barber and Odean, 2001). This prejudice is very noticeable in speculative markets, in which immediate profits can strengthen false impressions of individual competence. Overconfidence can lead one to disregard conflicting information and underestimate losses in highly changing financial situations. Another strong psychological force contributing to financial decision making is herd behavior. It happens when people follow the footsteps of other people instead of using personal analysis. The collective market behavior is something that is usually assumed by investors to be the best information and hence in most cases they invest in following the trend without rational reasons. This conduct has been linked to market bubbles and market crashes since group imitation has the potential to either overprice or underprice assets at a level higher than it is worth (Bikhchandani, Hirshleifer, and Welch, 1992). Herd behavior is being intensified due to online trading groups and social media platforms, which in the digital world propagate opinions and trends concerning investments at a very high rate.

The third important psychological determinant of investment decisions is risk aversion. It is the readiness of an individual to take a risk and run a loss in the quest of returns. The level of risk differs among individuals depending on demographic, psychological, and socio-economic backgrounds such as financial literacy, source of incomes, personality, and experience in investment (Grable and Lytton, 1999). More risk-takers would tend to trade speculatively and invest in risky assets whereas risk-aversive people would invest in less risky and stable assets.

These psychological effects are more pronounced when the traditional stock markets are compared to cryptocurrency markets. The stock markets are filled with the organised regulatory frameworks and established valuation systems whereas the cryptocurrency markets are decentralized, highly volatile, and technologically and socially dependent. Digital

assets being speculative tend to increase the emotion and cognitive bias leading to a critical environment to analyze the behavioral finance dynamic (Statman, 2019). Additionally, during the process of going digital in the emerging economies, the lack of access to digital trading systems and inadequate financial literacy may further enhance the vulnerability to psychological biases (Shiller, 2000).

The psychological motivation of investment actions is particularly relevant when it comes to the creation of financial settings, in which the participation in the market is gaining momentum. Since people more actively use traditional and online investment platforms, the study of the connection between overconfidence, herd behavior, and risk-taking behavior can be a good way to learn more about how investors make decisions, whether the market is stable, and how finance can be taught. This paper thus seeks to investigate how these mental elements influence investment decisions in both stock and cryptocurrency markets thus leading to a further understanding of how behavioural finance is applied in the modern financial systems.

Research Objectives

1. To investigate how the overconfidence, herd behavior, and risk tolerance influence the process of making investment decisions in stock and cryptocurrency markets.
2. To find the comparison of the impact of these psychological factors on traditional stock investors and the cryptocurrency investors.

Research Questions

1. What is the relationship between overconfidence, herding behavior, and risk tolerance and investor decision-making in the stock and cryptocurrency markets?
2. Do stock market investors and crypto investors also have big differences in their psychological behavior in terms of investment behavior?

LITERATURE REVIEW

Ideas Investment decision making Investment decision making has been a growing discipline to incorporate the use of psychology-related explanations instead of strictly rational-based models to explain cognitive and emotional factors that influence financial behavior. Classical economic theories rely on the rationality of investors who take into account all the available information and maximize expected returns. Nevertheless, empirical studies of financial markets have always shown behavioral pattern of irrationality, such as the over-trading, speculative bubble and panic sell-offs. These aberrations have given rise to the behavioral finance which combines the knowledge of psychology into the explanation of how financial decision-making is influenced by cognitive bias and emotional reactions.

One of the theoretical input points of behavioral finance is the Prospect Theory by Daniel Kahneman and Amos Tversky (1979). Prospect Theory is an unconventional theory that questions the conventional rational choice theory by showing that people calculate the gains and losses asymmetrically. Investors always have the tendency of being averse to losses i.e. losses are more psychologically influential than any similar gains. This causes risk-aversion in gain situations and risk-seeking situations in case of a loss. Another point that the theory highlights is that people do not use the objective probability but apply heuristics and subjective perceptions in decision making process. Prospect Theory has emerged as one of the most effective theories of investor behavior especially in the volatile and uncertain financial conditions. Overconfidence is another significant psychological cause that has received a lot of attention in financial literature. The overconfidence is the tendency of an investor to overestimate his or her knowledge, his or her predictive power, or his or her control of factors. Empirical studies have continued to demonstrate that overconfident

investors will trade more often and be more prone to taking excessive risks which in most cases will lead to low net returns because of transaction cost and improper timing of the market. Among the most notable empirical works, one has discovered that overconfidence-led excessive trading is a significant hindrance to investment performance (Barber & Odean, 2001). Biased information processing has also been linked to overconfidence as the investors tend to choose bias information that supports their beliefs and ignore evidence that tends to prove such beliefs wrong. The mental error is especially common in speculative markets, where unstable prices in the market support unrealistic predictions of individual ability.

Overconfidence is also closely associated with self-attribution bias where the investors tend to believe that good results are because they are good at what they do, and failures are because of outside influences. This is a psychological process that makes confidence stronger even in those cases when performance is not relevant to it. Experimental research indicates that overconfidence grows with financial performance in the market particularly when it is followed by a spell of financial success (Gervais and Odean, 2001). Also, it has been established that gender, age and financial literacy are demographic factors that affect the extent to which investors exhibit overconfidence (Glaser and Weber, 2007). These results reveal the multidimensionality of overconfidence and its analysis of the centrality in investment behavior.

The behavioral finance area of study that is also of great significance is the herding behavior. Herd behavior arises when people follow others but they should not follow them blindly as they do not make their own judgment. Informational cascade theory is commonly used as the theoretical explanations of the behaviour of the herd and it implies that a person derives information based on the behaviour of the other people and ignores his own personal information as he/she makes the decision (Bikhchandani, Hirshleifer, and Welch, 1992). The process may result in group decision making styles which increase market volatility. The aggregate following of trends in the market can cause the prices of assets to be way out of range relative to intrinsic prices, causing a speculative bubble or a crash of the market.

Herd behavior has been reported in empirical studies in different financial markets such as stock market, foreign exchange market, and emerging financial systems. Research has indicated that herd behavior is very common especially when there is uncertainty in the market and the information flow is very fast (Chang, Cheng, and Khorana, 2000). The use of technology and social media has also exacerbated herd behavior by enhancing the speed at which financial information and investor mood is disseminated. Digital trading communities and forums online, as well as real-time market updates provide settings where investors can such an environment, easily observe and imitate the actions of others. This is the social mechanism of reinforcement, which enhances conformity and decreases individual analysis.

Cultural and institutional factors have also been related to herd behavior. In developing economies, where the level of financial literacy can be relatively low and regulation arrangements are still in the developmental stage, investors might tend to use more of their social cues and collective wisdom (Banerjee, 1992). Empirical research with the development of financial systems indicates that herd behavior is more in the market structure that has low transparency and high uncertainty (Chiang and Zheng, 2010). These results denote that market structure and availability of information play a critical role in determining the degree to which the behavior of herds creates an impact on investment decisions.

The third important psychological dimension of financial decision-making is the risk-taking. The willingness of an individual to take a risk and the possibility of losing money in an aim of

earning more is the risk tolerance. It has been well-known as one of the key asset placement and investment decisions. The initial studies on risk tolerance focused on demographic and socio-economic factors, such as age, income, education, and financial experience (Grable and Lytton, 1999). This perspective was later broadened by including psychological aspects like personality, emotional stability and cognitive style.

Risk tolerance is dynamic and not fixed but varies according to the market conditions and personal experience. The willingness of the investors to take risks can be changed greatly by economic downturns, financial crises, and high volatility period (Yao, Sharpe, and Wang, 2011). Moreover, the level of perceived market knowledge and confidence also affects risk evaluation by the individuals. More financially literate investors tend to show more confidence in dealing with uncertainty, and thus have a higher risk tolerance (Lusardi and Mitchell, 2014). Overconfidence can however lead to skewed risk perception which leads to a tendency to invest aggressively.

Herd behavior, combined with overconfidence and risk tolerance, has become the focus of the modern research on behavioral finance. Such psychological factors make no independent action but rather interact in the complex manner to influence the investment choices. To give an example, overconfident investors are likely to have a greater risk-taking capacity and this leads to their greater vulnerability to speculative trading. The same can be said about herd behavior, which can be strengthened by the perception of risks, because people perceive group behavior as a sign of lowered uncertainty. The empirical research has established that psychological biases tend to complement each other and increase their effects on financial behavior (Pompijan, 2012).

The emergence of the cryptocurrency markets has given a new dimension to the study of the behavioral finance dynamics. Cryptocurrencies have been classified as highly volatile, not controlled by a central authority, and fast dissemination of information. The characteristics bring about circumstances that aggravate psychological biases. According to empirical studies, it is possible to conclude that an investor in cryptocurrencies is more overconfident and speculative than the investors in traditional stocks (Corbet, Lucey, and Yarovaya, 2019). The herd behavior is important in the cryptocurrency price movements that a significant part is played by social media sentiment and online communities (Ante, 2021).

Comparative analysis of traditional stock markets and cryptocurrency markets signifies that there is a great disparity in the investor psychology of both. The stock markets usually trade under a well-established regulatory framework and defined valuation techniques whereas cryptocurrency markets are more vulnerable to sales-based volatility. The literature indicates that the investors in the digital asset market are more prone to intuition and social factors because of the lack of historical data and the high level of uncertainty (Baur and Dimpfl, 2018). These attributes render cryptocurrency markets to be especially useful in studying behavioral finance theories.

The social and economic implications of psychologically motivated investing behavior have also been concerned as a part of behavioral finance research. Collective psychological dynamics have frequently been associated with market bubbles, financial crises, and manic speculation. Such studies have indicated that the mood of the investors and their emotional response are important factors that affect the price movements (Baker and Wurgler, 2007). It is not just that psychological factors influence a personal investment performance, but also that it contributes to the instability of the financial system.

Emerging market environments are particularly good environment to study behavioral finance. The high-speed financial growth, the spread of digital opportunities, and the

transformation of regulatory regimes make the situations in which the influence of psychological factors can be observed extremely clear. It has been the subject of empirical studies that investors in emerging markets tend to exhibit greater behavioral biasing because of poor financial education and information asymmetry (Shiller, 2000). Finally, the availability of online trading sites has only made the markets even more participative, and psychological effects have become more dominating.

The latest trends in behavioral finance have focused on the necessity of interdisciplinary solutions, which should combine the studies of psychology, economics, sociology, and technology. According to scholars, cognitive processes, emotional response, and social interaction could not be discussed as an entirety of financial decision-making (Statman, 2019). This school of thought emphasizes the need to study psychological variables in certain market settings and not generalize behavioral patterns.

In spite of the broad studies on behavioral finance in the world, there are limited empirical studies on the psychology of the investors in the emerging financial systems. The literature that is in place is focused on developed markets where the institutional set-ups and investor education is vastly different than in developing economies. Exploration of the behavioral impact on various financial settings can be a useful source of insight on the role of cultural, technological, and economic environment on the behavior of investments.

In general, the literature shows that psychological factors are a potent determinant in investment decisions that contradict the common beliefs of rationality. The perception of risk and trade behavior are influenced by overconfidence, the behavior of a herd of people by herding behavior, and the behavior of an individual by risk tolerance. These subjects play off in complex financial landscapes and especially in unstable and fast-changing markets like cryptocurrencies. These psychological motives are vital in seeking to explain actual financial behavior as well as enhance investment decision making processes.

HYPOTHESES DEVELOPMENT

Behavioral finance describes the nature of investment decisions as based on psychological biases and not necessarily on rational analysis of all. Some of the most vital psychological aspects include overconfidence, herd behavior and risk tolerance. These aspects influence the way investors process information, reactions to uncertainty and choices of financial resources. Overconfidence causes investors to make overly big judgments about their knowledge and power to see the market trends, which may cause them to be more active in trading and take more risks. Herd behavior affects the behavior of investors to follow others particularly in uncertain or volatile markets and diminishes independent decision making. Risk tolerance is a factor that dictates the degree of uncertainty that an investor is comfortable with, and has a direct impact on the kind of assets that he/she invests in and the amount of financial risk that he/she is ready to take.

It is assumed that due to the behavioral finance theory, and previous empirical reports, these psychological factors will play a critical role in the decision-making process of the investment.

Hypotheses

H₁: There is a strong positive impact of overconfidence on investment decision-making.

H₂: The herd behavior positively influences investment decision-making.

H₃: The risk tolerance positively influences the investment decision-making.

METHODOLOGY

Research Design

The research design that was used in this study was quantitative research design to determine the impact of overconfidence, herd behavior, and risk tolerance in decision



making when it comes to making an investment. The cross-sectional survey method was selected since it was necessary to collect numeric information about investors at one time and perform the statistical analysis of the association between the psychological variables and investment behavior. The quantitative method was deemed suitable since the study was aimed at the measurement of the psychological constructs and testing the hypotheses through statistical means.

Population and Sampling

The sample size was a group of individual investors who are actively involved in the stock and cryptocurrency market in Pakistan. These respondents were people that have experience purchasing, selling, or holding financial assets using brokerage platforms, trading applications, or cryptocurrency exchanges. The large population of investors made the population size unattainable, thus a non purposive sampling technique of non probability was adopted. This approach made sure that only people who had real experience of investing were used in the research. The respondents who were chosen were 250 in number because they were active participants in financial trading or investment activities, and this was a sufficient number to establish a quantitative analysis and test the hypothesized relationships.

Data Collection Procedure

Primary data collection was done by use of structured self-administered questionnaire that was given online. The questionnaire was distributed in social media, investment groups, and online trading groups where the participants of stock and cryptocurrency markets were identified. Through online distribution, geographically dispersed investors were reached and made access to efficient collection of data.

The final dataset was limited to questionnaires that were completely filled as a way of ensuring data quality and accuracy. Answers that lacked or contained different information were omitted in the analysis.

Research Instrument

The research instrument used in the data collection was a structured questionnaire that was split into two major sections.

In the first part, the demographic data, age, gender, experience in investment, and the investment market type (stock or cryptocurrency) were collected. These were the variables that were used to characterize the sample.

The second part was the measurement of the study variables on a five-point Likert-scale of 1 (strongly disagree) to 5 (strongly agree). Given that the constructs were measured in the following way:

- The question of overconfidence was used in questions of perceived investment ability, confidence in the prediction, and belief in personal financial judgment.
- The measure of herd behavior was done by items that reflect reliance on the decisions of others on investments, tendencies to trend-following and the influence of social opinion.
- Risk tolerance was evaluated using the items that determined willingness to undertake uncertainty and financial loss.
- The measurement of every item included in investment decision-making was based on investment activity, risk-taking behavior, and confidence in financial choices.

The measurement items were based on the available scales of behavioral finance and adjusted to the context of stock and cryptocurrency investment. The questionnaire was checked to make sure that some questions are clear, relevant, and correspond with theoretical constructs.

Data Analysis Techniques

The data obtained were analyzed in terms of statistics with the help of statistical software with the help of a multi-step analysis.

1. The first was the demographic analysis, which was aimed at describing the characteristics of respondents in frequencies and percentages.
2. Second, the descriptive statistics were used to analyze the mean and standard deviation of every variable.
3. Third, reliability test was conducted with the help of Cronbach alpha to determine the internal consistency of the measurements scales.
4. Fourth, correlation studies were done to determine the relationship between overconfidence, herd behavior, risk tolerance, and investment decision-making.
5. Lastly, the hypothesized relationships among the variables were tested using structural equation modeling (SEM). The reason why it was chosen is that SEM enables a researcher to test several relationships among latent constructs at the same time and has the ability to evaluate the research model as a whole. The strength and significance of relationships were evaluated with the help of model fit indices and path coefficients.

Ethical Considerations

The study was voluntary and the respondents were made aware of the objective of the study before filling in the questionnaire. Anonymity and confidentiality of responses were ensured and the information was not used to any other end other than academic research.

DATA ANALYSIS

Demographic Analysis

The initial one was the demographic analysis of the respondents to put investment behavior into perspective. The variables considered included gender, age, education, experience in investment and their main investment market. The demographic data showed that most of the respondents were young to middle-aged investors who took great involvement in the cryptocurrency markets. The majority of the respondents had at least a bachelor degree, which implied that most of them were financially literate enough to be exposed to investment risks and approaches. The investment experience was also very diversified and thus both the novice investor and the seasoned investor was represented. This demographic profile was used as a base to match the relationship between psychological variables and the actual investment behavior in the real world.

Table 1: Demographic Profile of Respondents (N = 250)

Variable	Category	Frequency	Percentage (%)
Gender	Male	148	59.2
	Female	92	36.8
	Prefer not to say	10	4.0
Age	Under 20	28	11.2
	21-30	110	44.0
	31-40	65	26.0
	41-50	32	12.8

	Above 50	15	6.0
Investment Market	Stock	82	32.8
	Cryptocurrency	108	43.2
	Both	60	24.0

Descriptive Statistics and Reliability Analysis

The second step projected descriptive statistics in order to interpret the central propensity and variability of each of the study variables: overconfidence, herd behavior, risk tolerance, and investment decision-making. The mean values indicated that the overall levels of these psychological traits of respondents were moderate to high, which is evidence of active and confident behavior of investors. Cronbach alpha was then used in reliability analysis to make sure that the measurement scales were always measuring what they intended to measure. The Cronbachs alpha values indicated high internal consistency and therefore, subsequent structural analysis is possible as all the variables showed high values of Cronbachs alpha.

Table 2: Descriptive Statistics and Reliability

Variable	Mean	SD	Cronbach's Alpha
Overconfidence	3.74	0.68	0.83
Herd Behavior	3.61	0.72	0.81
Risk Tolerance	3.89	0.64	0.86
Investment Decision-Making	3.78	0.66	0.84

Correlation Analysis

Correlation analysis was the third step with an aim to investigate the strength and direction of relationships between the independent variables (overconfidence, herd behavior, risk tolerance) and the dependent variable (investment decision-making). Pearson correlation coefficients were used to determine the relationship between the three psychological factors and the impact of each one of them on investment decision-making. The three factors showed positive correlations. Risk tolerance showed the closest relationship, and then overconfidence and herd behavior. These positive correlations gave some early indication of the relationships in the hypothesis and warranted additional testing using structural modeling.

Table 3: Correlation Matrix

Variable	1	2	3	4
1. Overconfidence	1			
2. Herd Behavior	0.41**	1		
3. Risk Tolerance	0.52**	0.46**	1	
4. Investment Decision	0.50**	0.44**	0.58**	1

Note: **p < 0.01

Structural Equation Modeling (SEM)

The fourth step entailed testing of the hypothesized relationships with Structural Equation Modeling (SEM). SEM also enabled the simultaneous testing of many relationships between

latent variables and this gave a strong test of the conceptual framework. It was found that overconfidence and herd behavior had a strong positive influence on investment decision-making, as well as risk tolerance. The most significant predictor was risk tolerance, which suggests that the readiness to take risks in finance is the key factor. The model fit statistics were suggestive of the acceptable fit (e.g., CFI > 0.90, RMSEA < 0.08), so the proposed structural model was able to explain the observed data.

Table 4: SEM Path Results

Hypothesis	Relationship	Path Coefficient (β)	t-value	p-value	Result
H ₁	Overconfidence → Investment Decision	0.29	4.21	<0.001	Supported
H ₂	Herd Behavior → Investment Decision	0.24	3.67	<0.001	Supported
H ₃	Risk Tolerance → Investment Decision	0.38	5.12	<0.001	Supported

In short, the discussion has affirmed that demographic factors presented a representative and diverse sample of investors. Descriptive and reliability analyses ensured that the scales of measurement were valid and consistent. Correlation analysis showed that there existed significant positive relationships between the psychological factors and investment decisions. Further results of SEM supported the hypothesized model to show that overconfidence, herd behavior, and risk tolerance indeed had a positive impact on investment decision-making. These results are an empirical confirmation that investor psychology is a crucial factor in financial decision-making which is in line with the behavioral finance theory.

DISCUSSION

The current paper analysed the psychological factors that defined investment decision-making between stock and cryptocurrency investors in Pakistan. In particular, it investigated how the overconfidence effect, the herd effect, and the tolerance of risks affect the decisions of investors. The results proved to be in favor of the three hypotheses and the evidence that psychological aspects have a great influence on financial behavior is in compliance with the main ideals of the behavioral finance.

The first hypothesis (H₁) tested the relation of overconfidence on investment decision-making. Findings showed that the positive effect was found to be significant and that investors that over rate their knowledge and predictive skills are the ones that make active and confident investment decisions. This is in line with the findings of the earlier research conducted by Barber and Odean (2001) and Gervais and Odean (2001) who reported that overconfident investors are more likely to trade and view themselves as talented and take risks that according to the rational models would be viewed as too much. The impact of overconfidence seems to be more visible in the setting of cryptocurrency markets because of market volatility and quick price fluctuations, which could further confirm the sense of individual competence.

The second hypothesis (H₂) was on the behavior of the herd. The review confirmed that the herd behavior has a positive impact on investment decision making which means that investors often depend on social phenomena, tendencies and group behavior in making financial decisions. The result is corroborated by Bikhchandani, Hirshleifer, and Welch (1992) and Chang, Cheng, and Khorana (2000), who found that people tend to go with the crowd in ambiguous situations. This effect could be enhanced by the social media and internet investment forums and the online trading platforms which can expose the investor to the real-

time activities of peers. This herd-driven decision may be further reinforced in emerging markets like Pakistan where financial literacy may be low and the markets may be extremely uncertain.

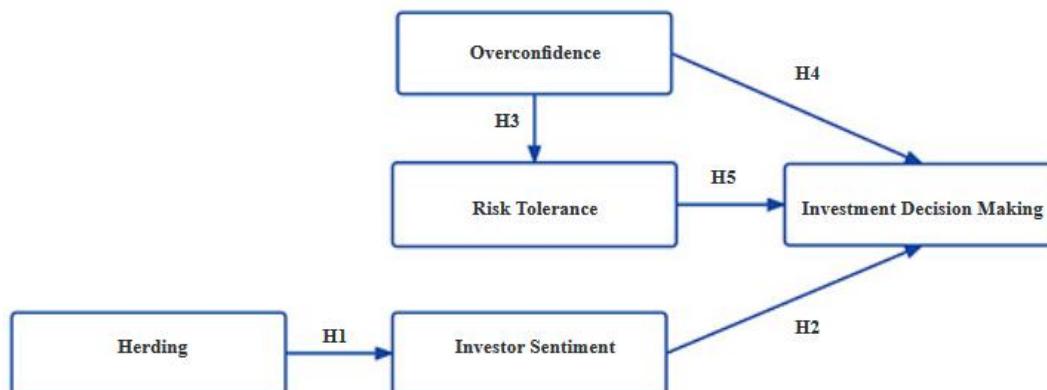
The third hypothesis (H₃) evaluated the contribution of risk tolerance in the determination of investment behavior. It was found that risk tolerance was the most potent predictor of investment choices indicating that the disposition to take financial risk is a very influential factor in the amount of investor activity. This is in line with other findings by Grable and Lytton (1999), and Lusardi and Mitchell (2014), who highlighted that risk tolerance of individuals determines the asset allocation and inclination toward volatile and stable investments. Greener risk investors would have been more willing to participate in more risky speculation, especially in cryptocurrency markets, where there are high rates of price fluctuation and high profit potential.

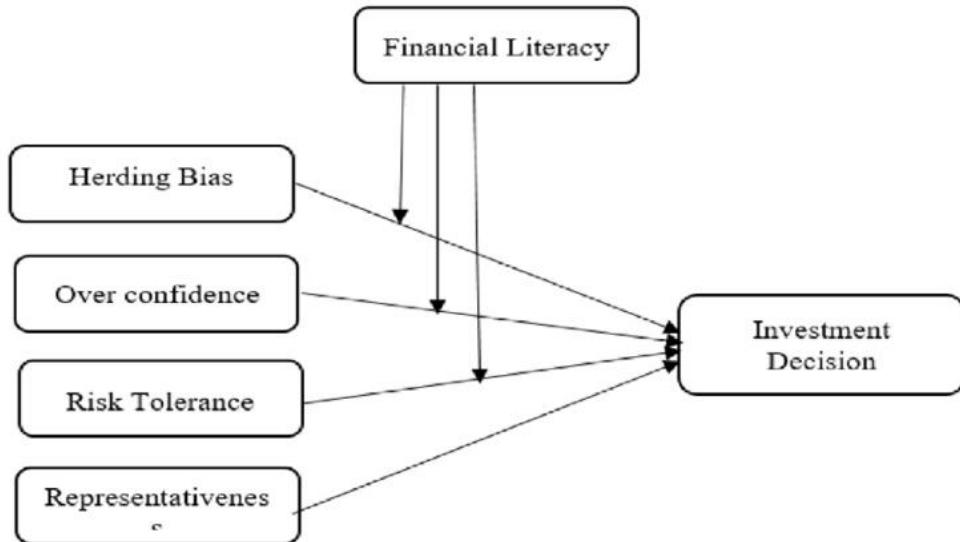
The correlation analysis also confirmed the fact that these psychological aspects are interdependent and have a combined effect on the behavior of investments. Herd behavior and overconfidence were found to be positively related with risk tolerance, indicating that those who are confident about their judgement or who follow a trend in the market are also more risk-takers. These interactions strengthen the role of behaviors in influencing the financial decisions by showing that cognitive factors and social factors are not separate processes.

This has significant implications on the findings of this study. To start with, they validate the idea that the standard rational models of finance, believing that investors are objective in their approach to increasing returns, fall short to explain the reality of investment behavior in the stock and cryptocurrency market. Second, the higher impact of risk tolerance stresses the importance of financial education programs that would assist investors to evaluate and control their risk-taking behavior. Third, the implication of herd behavior role is that the social and informational effects must be put into account when developing investor awareness campaigns or regulatory policies, particularly in an emerging market.

Hypothesis Framework Conceptualizations

The conceptual diagram of the hypothesized relationships between psychological factors and investment decision-making is provided below:





Explanation

- The independent variables are illustrated as overconfidence, Herd Behavior, and Risk Tolerance.
- The dependent variable is Investment Decision-Making.
- The arrows show the positive relationships that are proposed to be tested by SEM.

To sum up, the research proves the idea that investor psychology has a strong influence on making financial choices both in the traditional and digital market. Individual risk preferences are most important in determining investment outcomes, with overconfidence and herd behavior having a positive effect on decisions, although risk tolerance is the greatest. These findings are part of the behavioral finance literature and have some practical implications in the way investors, financial advisors, and policymakers should strive to shape informed and rational investment behavior.

CONCLUSION

The research concludes that psychology is a key factor in the process of investment in a stock and cryptocurrency market. Herd behavior and overconfidence have a positive impact on the decision of investors, yet the ability to tolerate risk turned out to be the strongest predictor of tendencies, and the readiness of a person to venture into uncertainty is very important. These results show that investors are not necessarily rational; instead, they make decisions based on cognitive biases, the effect of social factors, and individual risk aversion. The knowledge of the behavioral patterns can be a good explanation to the reasons why investors make particular financial decisions and why it is important that behavioral finance principles are incorporated into the market analysis and the education of investors.

RECOMMENDATIONS

According to the results, investors are suggested to work on improving the state of financial literacy to have a better perception of risk and market dynamics, which will decrease the impact of overconfidence and herd behavior. Educational programs, risk assessment tools and advisory services should be made available to the investors by financial institutions and regulatory bodies to make better informed and rational decisions. Also behavioral nudges can be applied through investment platforms, e.g. notifications of risky trades or diversified portfolios, to allow an investor to balance possible returns with financial risk. These measures

will be able to encourage more responsible investing and minimize the chances of losses under the influence of psychological prejudices.

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