SENTIMENT, RISK APPETITE AND STOCK RETURNS OF INDIVIDUAL INVESTORS AT THE NAIROBI SECURITIES EXCHANGE

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ABSTRACT

Investor sentiment is a new area of study with the wider field of behavioural finance which argues that investors are irrational in making investment and do not rely on objective information to make decisions. Sentiment is not a stable reality since it fluctuates from optimism to pessimism since investors rely on rumours and instinct as decision criterion. The tendency to rely on bias and rumours by investors leads to heightened activity and increased risk in the market. Risk seeking traders tend to be optimistic and overactive in the market. Thus,

Investor sentiments it is believed has the capacity to explain the phenomenon of market volatility which traditional models have not managed to do thus far. Nevertheless, there is no consensus on the role of investor sentiment on stock returns. Hence the objective of this study was to establish the relationship among sentiment, risk appetite and stock returns of individual investors at the NSE. The study adopted a positive orientation and a correlational descriptive survey. Primary data was collected using a structured questionnaire and the response rate was 70.3 %. The study using stepwise regression established that risk appetite had no mediating effect on the relationship between sentiment and stock returns of individual investors at NSE.

Keywords: *Investor Sentiment, Risk Appetite, Stock Returns*

INTRODUCTION

The influence of investor sentiment on stock returns of individual investors is a field of research that is relatively new at the Nairobi Securities Exchange where studies on behavioural finance are just starting. Investor sentiment is believed to have the potential to explain the reason behind the market bubbles and bursts which traditional finance has not been able to do up to now. Investor sentiment is an unstable phenomenon, meaning that it is not fixed but fluctuates, and it is argued that they can affect investment decisions. Although research has been done in the field, the role of investor sentiment on stock returns in yet to be clearly defined. Some studies argue that when sentiments are high the returns are positive such as (Islam, Mumtaz & Hanif, 2020) while others attest that sentiment has no influence on outcome (Sreenu & Naik, 2021) and still others claim that high sentiments lead to low returns (Lansing, LeRoy & Ma, 2022). Hence, the conflict remains unresolved on the role of sentiment in predicting of stock returns.

Traditional financial models such as Capital Asset Pricing Model (CAPM), Arbitrage Pricing Model (APT) or Markowitz Model, were believed to predict stock returns but so far they have not explained future cash flows that deviate from fundamentals (Smales, 2017). On the other hand, behavioral finance theories propose that sentiments drive asset prices (Shefrin, 2008). Furthermore, behavioural finance theories oppose fundamentals as predictors of future cash flows arguing that irrationality of investors drives asset prices and can explain volatility in the market. In support of behavioural finance, investors resort to easier decision criterion such as instinct and sentiment because the traditional models can be rather complex to apply and interpret (Chang & Fang, 2020). The selection of simpler ways to solve complex investment decisions could result in heightened risk.

Risk is a key aspect of decision making and therefore, determining the level of tolerance an investor can bear is an important step in selecting an investment (Sayim, Morris, & Rahman, 2013). In other words, risk appetite determines the investment decision depending on whether the investor is risk seeking or risk averse. Sentiment and risk interact in such a way that the investor tends to go for risky assets when the mood is high and when the sentiments is low the investor selects certain stocks. Thus it is believed that risk appetite determines the sentiment that an investor manifests in the market and the returns they will get. This is so because risk seeking investor tend to be optimistic and overactive in the market while risk averse traders

manifest caution due to pessimism. Overactive behavior may lead to suboptimal decisions with negative or low returns while caution may not yield abnormal profits. Risk appetite plays an important role in decision making as it affects investor sentiment and outcome.

The current research investigated the mediating role of risk appetite in an effort to obtain more insights into the relationship between investor sentiment and stock returns of individual at NSE. Therefore, this study was motivated by the interest to contribute to resolving the ensuing conflict between traditional and behavioral models on the role of irrationality on asset prices. Specifically, the study sought to establish the influence of sentiment on stock returns of individual investors at NSE.

DEFINITION OF VARIABLES
Investor sentiment is defined as the as the subjective beliefs which investors hold about a stock that is objectively valued or priced. It is argued that investor sentiment could have an influence on stock prices and returns (Shefrin, 2008). Investor sentiment is a phenomenon that is growing in importance because it is believed to have the potential to explain asset prices and volatility that have baffled traditional models. Baker and Wurgler (2007) define investor sentiment as the expectation of future cash flow that is unsupported by facts and figures. In other words, investors make predictions about objectively priced assets which lead to fluctuations away from the fundamental value. According to Zhang (2008) sentiments are the subjective beliefs and expectations of investors about assets that replace fundamental data. This behaviour can explain the sudden perplexing fluctuations in prices that puzzle the market. Accordingly, by not considering objective information, investors risk having suboptimal returns from their investments. Hu and Wang (2013) define sentiment as the interpretation of objective information in a biased way meaning that investor expectations about future asset prices may not be rationally based but founded on instinct and sentiment. Investor sentiment is important as it is believed to impact decisions and returns from investments.

Risk appetite is referred to as the willingness to bear a certain level of risk this is *subjective* since it depends on each investor. There is an *objective* risk inherent in each asset which the investor has to decide if they can tolerate it or not (Gonzalez-Hermosillo, 2008). The risk appetite of an investor is essential in this study because it determines the type of asset that be will selected and thus could impact outcome in returns. Furthermore, the riskiness of an asset is important since it determines the reward in terms of returns that an investor will demand for bearing it (Gai & Vause, 2018). Risk appetite can also be defined as the decision the investor makes regarding the level of uncertainty he is willing to undertake (Rajararan, 2003). Thus, an investor should carefully determine their tolerance level since riskless investments do not exist. Risk appetite refers to two aspects one is the subjective level of willingness to bear a degree of uncertainty and the other is the objective risk brought about by external factors that affect prices (Gonzalez-Hermosillo, 2008). Thus, the level of uncertainty that an investor perceives in an asset can determine whether the investor is risk seeking or risk averse. In other words, the expectation is that the more uncertain an asset is the lower the risk appetite since the investor will demand a greater reward for higher risk.

Stock returns are the sum total of the capital gains and dividends paid in a holding period (Litner, 1965). Returns could be defined as the reward for bearing investment risk. Stock returns are important for this study because they an objective measure of performance because they are based on market prices and not firm estimates. Markowitz (1952) defines stock returns as the mean of the random earnings from a portfolio within a holding period. The Markowitz model assumes that an investor sets up a portfolio subject to a certain level of risk with the aim of maximizing returns. Risk is explained as the variance of the portfolio's returns. Sharpe (1964) defines returns as the linear function of the covariance of a risky asset with the market return. The covariance between the market and risky asset portfolio is the undiversifiable systematic risk which usually is the price of uncertainty. An investor demands a return for bearing undiversifiable risk related to making a certain investment.

THE RESEARCH PROBLEM

Investor sentiment is a phenomenon that is believed to have the potential to explain volatility in asset prices since so far traditional models like APT or CAPM are yet to do so. However, it is a relatively new concept in finance research and hence more can be known about it and how it influences returns. There has been an ensuing conflict between behavioural and traditional theories on the role of irrationality on asset prices and returns. The two branches do not agree on which irrationality or objective information determines stock returns (Rashid, Fayyaz, & Karim, 2019). A conceptual gap is thus highlighted in the lack of consensus on the effect of investor sentiment on stock returns of individual investors because some studies found that the influence is positive (Islam, Mumtaz and Hanif, 2020) others argue it is negative (Lansing, LeRoy and Ma, 2022) while still others attest there is no relationship between the two variables (Sreenu & Naik, 2021).

The varied outcomes may be so because the studies may not have investigated the indirect relationship of investor sentiment and stock returns via mediating on moderating effects. Further the moderating effect of demographic characteristics and the mediating effect of risk appetite on the relationship between investor sentiment and stock returns at NSE are also not clearly defined since this type of study has mainly been conducted in the developed markets. Majority of the studies have tested either the moderating effect of demographics or the mediating effect of risk appetite but only few have investigated the two.

A methodological gap was found in the varied ways of estimating investor sentiment. Hu and Wang (2013) used Buy-Sell-Imbalance Index (BSI) to measure investor sentiment however the details of stocks sold and bought by an investor, are not readily accessible especially in developing markets. Smales (2017) Chicago, USA estimated investor sentiment using volatility index (VIX), but, this index is computed using data from Chicago and therefore is only applicable there. Qadan (2019) used Idiosyncratic volatility to measure sentiment and was computed using Fama and French (2015)'s five factor model. Nevertheless, the Fama and French model includes some rationality assumptions which contradict irrationality arguments. Wenzhao, Su and Duxbury (2021) used Consumer Confidence Index (CCI) to measure sentiment however, CCI is an index ordinarily estimates consumer's income and expenditure expectations.

A contextual gap was identified in that most of the reviewed studies were conducted in overseas markets which are very advanced in technology and infrastructure and the outcome of the studies are rendered ungeneralizable. For example, Kannadhasan (2015) was carried out in Middle East, Smales (2017) was done in Chicago America, Dickason and Ferreira (2018) in South Africa, Fang et al. (2021) was conducted in Taiwan, Wenzhao, Su and Duxbury (2021) was carried out in the UK and Blake, Cannon and Wright (2021) done in the UK as well. Therefore, it would be beneficial for the market to have study done on the role of sentiment within the local context.

The studies conducted locally at NSE on investor behavior are limited in number because in comparison to the developed markets they are few and thus more research is needed. These studies include; Bitok (20110), Aroni et al. (2014), Nyamute (2016) Onsomu, Kajiage, Aduda, & Iraya (2017), Onsomu (2018) and Musembi, Simiyu, & Njoka (2020). In addition, the research done so far at NSE on irrationality has been more geared towards behavioral biases and not on investor sentiment thus a knowledge gap is identified that could be filled with more studies. Thus a research on the role of sentiment on stock returns of individual investors at the NSE would be beneficial to the market.

The objective of the current study was to investigate the effect of risk appetite on the relationship between investor sentiment and stock returns of individual investors at the Nairobi Securities Exchange.

LITERATURE REVIEW
Prospect theory by Kahneman and Tversky (1979) states that investors prefer certainty in outcomes compared to probable gains; a tendency which called the certainty effect. The certainty effect causes the investor to be more risk averse when there is a prospect of gain and to be risk seeking in view of a loss which shows irrationality. This means that the irrational investor will hold on to a losing stock to avoid actualizing a loss and will sell a rising stock to lock in the gain (Barberis et al., 2016). Furthermore, the investor in the theory assigns decision weights to losses and gains instead of the true value of the asset this is so because the investor feels more pain in obtaining a loss that joy for an equal amount of profit.

The current study is anchored on prospect theory since it provides the basis for the research on irrationality since it argues that investors fear making losses more than the desire they have for obtaining gains. Nevertheless, prospect theory is critiqued for relying on the utility assumption which is a rationality argument which asserts that investors seek to maximize wealth and to avoid losses. However, prospect is useful for the study because it is the foundation for the relationship between investor sentiment and returns and it could clarify outcomes that cannot be explained by rational arguments. Noise Trader theory by Trueman (1988) argues that there are traders in the market who rely on rumours and instinct to make investment decisions. These investors are called noise traders and they tend to be optimistic and they have a high risk appetite hence they are overactive when trading in the market. Furthermore, the theory argues that the activity of noise traders can lead to inflated prices and increased investment risk (Shleifer & Summers, 1990). The behaviour of noise traders may at times lead to abnormal profits but it could also lead to suboptimal decisions since they are based on rumours and lack the rigour of analysis of facts of figures. Thus, this theory was relied on by the study to support

the existence of irrational traders in the market who use instinct and hearsay as a decision criterion and as a result are optimistic and risk seeking.

However, traditional finance argues that prices have a self-correcting tendency and that asset values adjust themselves to information as it becomes available (Malkiel, 2003). Therefore, the price inflation effect of noise trading is eliminated by availability of information and it reduces the possibility of abnormal gains. Nonetheless, the theory is beneficial to the study since it shows that interaction between optimism and risk seeking behaviour and how it could affect outcome.

Olweny, Namusonge and Onyango (2013) investigated the effect of financial attributes on risk tolerance of individual investors at NSE. Monthly income and owning a home were the indicators of financial attributes. The sample size was 500 NSE investors who are also holders of CDSC accounts in Kenya. The study used cross tabulation to measure correlations among the variables. Analysis of variance and logistic regression were used to measure the relationship among the variables. The study established that investors who own a home had a higher tolerance for risk than those who did not have one. However, the relationship between home ownership and risk tolerance was not statistically significant. Nevertheless, the influence of income on risk tolerance was found to be significant. The study could also have considered the effect of mortgages and loans since they may impact the relationship of financial indicators and risk tolerance.

Dickason and Ferreira (2018) investigated the relationship among risk tolerance, investor biases and personality. An online survey was carried out among 1,171 clientele of South African Financial Services Group. The study established that the investors who were risk averse and cautious in the market manifested mental accounting bias in trading and aversion to losses. On the other hand, the investors who were risk seeking were affected by self- control bias. The limitation in this study is that it was conducted in South Africa which is more developed than Kenya. The participants were from one organisation only, meaning that the results could be biased to the company and not the whole country.

Gai and Vause (2018) developed a model for estimating risk appetite based on the criteria used by objective investors and the subjectivity of irrational traders in forecasting future cash flows from an asset. The study used an estimation that differentiated risk seeking from risk aversion and the output of the model was in quantities not just in categories. Risk neutral investors' attitude was measured using publicly available option prices. The model demonstrated a capacity to project returns during periods of instability like macroeconomic crises. The study investigated the Asian financial crisis of the late 90s when borrowing money was very costly due to loss of value of the Thai Baht. The study found that the varying risk attitudes led to correlation among asset prices. Fundamentals alone were found to be incapable of explaining the rise in cost of borrowing and so risk appetite was revealed as a better reason for volatility. The flaw in this study was that risk appetite is treated as an indicator of investor sentiment. However, in other literature, investor sentiment is handled as a separate variable from risk appetite. The inconsistency in the model could be because of reliance on the utility function which is founded on rationality assumptions.

Qadan (2019) evaluates the effect of unexplained volatility of stock returns and risk appetite on expected returns. The study used data for the period 1980–2016 from the Center for Research in Security Prices (CRSP) in Chicago. The Five Factor model by Fama and French (2015) was applied in the estimation of unexplained fluctuation in stock returns also known as idiosyncratic volatility. Risk appetite was found to have a significant and positive role in explaining the power of idiosyncratic volatility in predicting expected stock returns. Further, the study concluded that when risk appetite was high investors traded speculatively and vice versa. Thus, the study found a significant and positive effect of risk appetite on the relationship between idiosyncratic volatility and returns. The gap however is that, risk appetite was estimated using investor sentiment proxies that were based on; a survey, paper media and the market. Therefore, the distinction between risk appetite and sentiment is unclear in the study.

Rashid, Fayyaz and Karim (2019) examined the impact of sentiment, momentum and risk factors on returns in the Pakistan asset market. The study was done using returns of companies listed at the Pakistan stock exchange for the period 2000 to 2013. The study established that sentiment and momentum have a significant and positive relationship with returns. The Three-Factor model by Fama and French (1992) showed that the two variables increased the prediction power of the equation. Thus, the role of sentiment and risk in the prediction of future cash flows is revealed. Investor sentiment is also noted as having a negative impact on risk, size and value. Therefore, investor sentiment was found to be a key factor in performance in the market. The limitation of the study was that it used a rationality equation, the Three-Factor model by Fama and French (1992) to test irrationality

Kasoga (2021) investigated the relationship between investment decisions and mental accounting, overconfidence, anchoring and decision framework (heuristics). The study was conducted among 316 individual equity investors at the stock market of Tanzania. The study tested the mediation influence of risk tolerance together with financial literacy using SEM. Financial literacy was found to have no influence in the relationship among heuristics of overconfidence, availability, anchoring, representativeness and investor decisions. On the other hand, risk tolerance was positively influenced by the interaction of heuristics and investment decisions. The order of power of driving investment decisions was overconfidence first then availability, followed by representativeness, then risk tolerance, anchoring and finally financial literacy. The study in trying to encourage investors to take part in the research avoided confidential questions. Therefore, the research may not have covered all the dimensions related to investor sentiment and decision making.
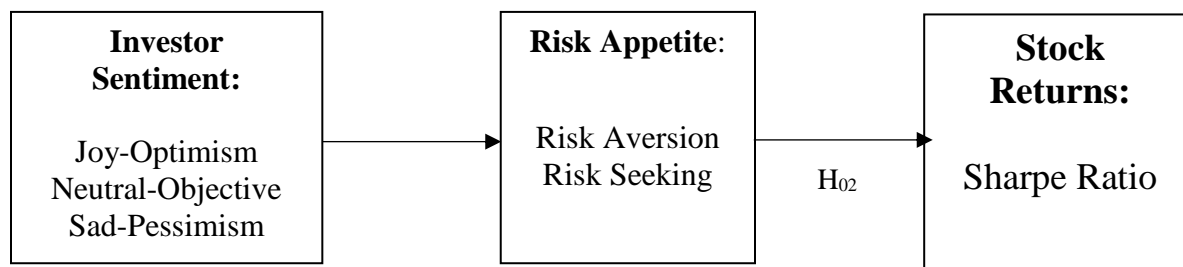
Asad, Toqeer and Mahmood (2022) designed a theoretical framework to explore how different levels of social moods affected individual investor's financial risk tolerance in Pakistan. Qualitative phenomenology was used to interview 22 investors who had trading experience of more than 10 years. Thematic analysis was performed to interpret the data. Validity and reliability was tested using triangulation, audio records, member checking and bracketing. A theoretical model was developed which was based on the themes identified in the thematic analysis. The determinants and levels of social mood were revealed through applying the model. The study found that the interaction of social mood and risk tolerance were moderated by experience, financial literacy and reason for investment. The paper concluded that risk was a key aspect of each investment decision and therefore, it is important that investors understand

its effects well. Further, risk appetite can only be understood in the light of social mood since it has an impact on the investor's tolerance level. A limitation of the study is that phenomenology involves the opinion of the researcher accordingly, it would be difficult to avoid interviewer bias.

CONCEPTUAL FRAMEWORK

H_{02} reflects the mediation of risk appetite in the relationship between investor sentiment and stock returns which was based on (Dickason & Ferreira, 2018). Further, Brooks et al. (2020) argues that moods affect the attitude of the investor towards risk such that high sentiment lead to a risk seeking tendency and low emotions cause aversion to uncertainty. Risk appetite was divided into two categories; risk seeking and risk aversion. Low risk appetite showed risk aversion while a high appetite represented risk seeking. The indicators of risk appetite which follow the study by Qadan (2019) and Kasoga (2021) were; Stability of income, likelihood of taking a loan to buy assets, level of knowledge of stock trading, maximum period one can invest a large sum of money before needing it for expenses, rating of asset risk (high risk and high income assets, balanced portfolio and low risk assets) and reasons for investment.

CONCEPTUAL FRAMEWORK

Investor Sentiment: Joy-Optimism Neutral-Objective Sad-Pessimism	→	**Risk Appetite**: Risk Aversion Risk Seeking	H_{02} →	**Stock Returns:** Sharpe Ratio
Independent Variable		**Mediating Variable**		**Dependent Variable**

H_{01}: There is no significant intervening effect of risk appetite on the relationship between investor sentiment and stock returns of individual investors at NSE.

RESEARCH METHOD

The current study adopted the positive approach since it involves testing hypotheses on the relationship among variables. This is aligned to the objectives of this research. Phenomenology would not be appropriate since it attempts to develop theories and patterns from the observations made, experiences lived and data collected which was not the objective of this study (Blumberg, Cooper, & Schindler, 2005). The descriptive survey was appropriate for this study since which aims at explaining a phenomenon in a population through collection of data and hypotheses testing. The exploratory design is not appropriate for this study since it aims at establishing new areas in order to conduct research. The causal design is geared towards establishing the effect of a stimuli which is not the objective of this study. In the correlational

design variables are defined, operationalized, analyzed and compared to formulated hypotheses and examines whether a change in one variable causes any variation in another one which show they are related to each other. Therefore, this study a cross sectional correlation study involves the collection of data at a point in time to analyse it for relationships among variables (Sekaran & Bougie, 2016).

The population of the study consisted of 1,173,747 individual NSE investors who have active CDSC accounts (Capital Markets Authority, 2021). The sample size was 384 which was selected using both random and convenience method. The respondents of the questionnaire were individual investors at the NSE who were to be contacted through the listed brokerage firms. The questionnaire was distributed via emails to the clients of the agreeable brokerages firms.

A structured questionnaire was considered appropriate since it allows for data to be gathered without the researcher introducing personal biases to the investigation. The questions on sentiments were adapted by the researcher for the study from the questionnaire by the American Associations of Individual Investors (American Association of Individual Investors, 2019). The risk appetite questions were formulated from the Royal Bank of Scotland Morgan (RBS) investor risk profile (RBS Morgan, 2019). The questions on demographics were developed by the researcher following the study by Onsomu (2018) and queries on stocks data were based on Nyamute (2016).

OPERATIONALIZATION OF VARIABLES

Investor Sentiment Operationalization (Onsomu, 2018; Nyamute, 2016, Fang et al., 2021; Association of American Individual Investors, 2021) Interval Scale Part B of the Questionnaire	Joy-Optimism	Operational Definition
		Information source Family + Friends
		Information source Financial Consultant
		Information source Past Experience
		Information source Financial Statement
		Information source Experienced Investor
		Information source Newspapers, Tweeter, Facebook TV News
		Information source Investment Report
		Information source AGM
	Neutral Objective	Operational Definition
		Complication of financial statements
		AGM attendance
		High stock performance expectation
		Moderate stock performance expectation
		Low stock performance expectation
		Negative stock performance expectation
		Frequency of trading at NSE
	Sad-Pessimism	Operational Definition
		Stock prices are declining
		Stock prices are rising
		Stock market performance is declining
		Stock market performance is average
		Stock market performance is good
		Stock information provision at NSE
		Stability of economic environment
		Stability of political environment

OPERATIONALIZATION OF RISK APPETITE

Risk Appetite (Qadan, 2019; RBS Morgan, 2021) Interval Scale Part C of the Questionnaire	Risk Seeking	Risk Seeking-Operational Definition
		Stability of current income
		Loan for NSE assets
		Stocks trade knowledge level
		Max time to invest 70% income before it is needed for expenses
		Aggregate score
	Risk Aversion	Risk Aversion Operational Definition
		High Income and High Risk assets
		Balanced Portfolio
		Volatile investments
		Reason For Investment
		Aggregate score

RELATIONSHIP AMONG INVESTOR SENTIMENT, RISK APPETITE AND STOCK RETURNS-HAYES METHOD (2009)

The study analysed the mediation effect using the three step method proposed by Hayes (2009).

H_2: There is no significant mediation effect of risk appetite on the relationship between investor sentiment and stock returns of individual investors at NSE.

The hypothesis was tested using the following model:

$SR= \beta_0+ \beta_1 IS+ \beta_2 RA+ \varepsilon$

The first model reflects the results of the first step which involved the regressing risk seeking (mediating variable) against investor sentiment (independent variable) (joy-optimism, neutral-objective and sad-pessimism).

The outcome of the first model was as follows; $R^2 =.184$ which implied that the model could explain 18.4% of the variation in risk seeking. The F-statistic of the model was (F= 19.994, p < .01) meaning that the model was significant and thus investor sentiment had an influence on risk seeking.

The coefficients tests had the following output; joy-optimism, ($\beta_1=.3121$, p < .01) and sad-pessimism ($\beta_1=.1468$, p < .01). Thus, the coefficients of joy-optimism and sad-pessimism were significant in predicting risk seeking and so the investigation to move to the next step.

Model two regressed risk aversion (mediating variable) against investor sentiment (independent variable) (joy-optimism, neutral-objective and sad-pessimism). The results of the analysis showed that $R^2= .114$ which means that the model could only explain 11.4% of the variation in risk aversion. The F-statistic of the model was (F= 11.454, p < .01) which implied that the model was significant and thus it could be adopted in predicting risk aversion subject to coefficient test results.

The results of the coefficient tests for the second model were; sad-pessimism was ($\beta_1=.121$, p < .01). Hence, the coefficient of sad-pessimism was significant and it had an influence on risk aversion. Accordingly, the study could move to the third and final step.

The third Model involved regressing Sharpe Ratio (dependent variable) against investor sentiment (independent variable) (joy-optimism, neutral-objective and sad-pessimism) and risk appetite (mediating variable) (risk seeking and risk aversion).

The model was weak and it had the following outcome $R^2= .017$ thus it could only explain 1.7% of the change in Sharpe ratio. The F- statistic of the model was not significant and therefore, it could not be used to predict Sharpe ratio.

The coefficient tests were also not significant and thus the study failed to reject the hypothesis that there is no significant mediating effect of risk appetite in the relationship between investor sentiment and stock returns.

Regression Model of Investor Sentiment, Risk Appetite and Sharpe Ratio

Variable	Model 1[a]	Model 2[b]	Model 3[c]
Outcome	Risk Seeking	Risk Aversion	Sharpe Ratio
Equation	$RS = \beta_0 + \beta_1 JO + \beta_2 NO + \beta_3 SP + \varepsilon$	$RA = \beta_0 + \beta_1 JO + \beta_2 NO + \beta_3 SP + \varepsilon$	$SR = \beta_0 + \beta_1 JO + \beta_2 NE + \beta_3 SP + \beta_4 RS + \beta_5 RA + \varepsilon$
Constant	1.218(.000)	1.778(.000)	-2.13(.116)
Joy_Optimism	.3121(.000)	.106(.0053)	-.267(.222)
Neutral_Objective	-.009(-.157)	.009(.846)	.002(.993)
Sad_Pessimism	.1468(.021)	.121(.002)	.293(.183)
Risk Seeking			-.199(.336)
Risk Aversion			.312(-.349)
F	19.994(.000)	11.454(.000)	.931(.461)
R^2	0.184	0.114	0.017
p-value in (parenthesis)			
a. Predictors: (Constant), Joy_Optimism, Neutral_Objective, Sad_Pessimism. Dependent Variable: Risk Seeking			
b. Predictors: (Constant), Joy_Optimism, Neutral_Objective, Sad_Pessimism. Dependent Variable: Risk Aversion			
c. Predictors: (Constant), Joy_Optimism, Neutral_Objective , Sad_Pessimism, Risk Seeking, Risk Aversion, Dependent Variable: Sharpe Ratio			

RELATIONSHIP AMONG INVESTOR SENTIMENT, RISK APPETITE AND STOCK RETURNS (BOOTSTRAP TOTAL, DIRECT EFFECTS AND INDIRECT EFFECTS)

The results of the total effect of investor sentiment (independent variable) on Sharpe Ratio (dependent variable) (X on Y) was (B=-.2428, p >.05) implying that it was not significant. The direct effect of investor sentiment (independent variable) on Sharpe Ratio (dependent variable) (X on Y) was (B= -2161, p > .05) hence it was also not significant. The indirect effect which is the mediating influence between investor sentiment (independent variable) and risk appetite on Sharpe ratio (dependent variable) (IS, RA on SR) was (B= -.0267, p > .05) which was not significant.

The outcome of Bootstrap was Boot LLCI=-.2551 and BootULCI-.1454 which means that the effect was no significant since the outcome falls outside the range of the LLCI and ULCI. The indirect effect tests the existence of mediation influence in a relationship. Thus, when the effect is not significant it means that there is no mediation. Hence, the study failed to reject the null

hypothesis that there was no significant mediating influence of risk appetite in the relationship between investor sentiment (independent variable) and Sharpe ratio (dependent variable).

THE EFFECTS OF INVESTOR SENTIMENT, RISK APPETITE AND SHARPE RATIO-BOOTSTRAPING

Effects	Effect ULCI	se	t	p	LLCI
Total effect (IS-SR)	-.2428 .4696	.3618	-.6710	.5028	-.9551
Direct effect (IS-SR)	-.2161 .5332	.3806	-.5678	.5706	-.9654
	Effect Boot ULCI	BootSE			Boot LLCI
Indirect effect(s) (IS-RA-SR)	-.0267 .1454	.1013			-.2551

CONCLUSIONS OF THE STUDY

The relationship between investor sentiment, risk appetite and stock returns was not significant. Further risk appetite was found have no significant mediating effect in the relationship between investor sentiment and stock returns at NSE. Thus investors at NSE should consider other factors such as objective information about assets when making investment decisions since risk appetite was found to have no impact on investor sentiment and returns.

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