INVESTORS BEHAVIOR ROLE IN MARKET DECISION - AN IMPACT OF VIX FUTURES ON VIX SPOT

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ABSTRACT

The present study has focused on the investors' behavior role in investment decision making. The study has considered the irrational and rational behavioural aspect and collected the primary data with the simple random methodology. The study also considered the secondary data of volatility base index VIX from nse India. The VIX will tell us the market volatility picture of National Stock Exchange India. The present study made an attempt to know impact of Volatility Index – VIX future on the Spot market volatility. The study has considered the historical data of NSE India from the period of 2015 to 2020. In the study VIX future influence on the VIX spot has been examined with the statistical method of Ordinary least square and the result reveals that the VIX future significantly influenced the VIX spot market and with the ARCH family model Volatility of VIX future impact on the Volatility of VIX spot examined. The GARCH test result reveals that the VIX future volatility influenced positively the VIX spot market.

Keywords: Future Index, Hueristic behavior, Irrational Behaviour, Nifty, Rational Behaviour, Stock Market, Spot, VIX and Volatility.

INTRODUCTION

An investor investing in the stock exchange typically expects some changes in the stock indexes or overall market and then take the investment decisions. Indexes not only measure investors' income, they also calculate the actual state of the economy. The industry has common use of the future by investors, in the same time that speculators are other major beneficiaries of these contracts, to protect themselves against hostile future price fluctuations. The majority of retail investors and block dealing are reportedly tracking the trade volume market, overcoming price fluctuations that these indicators indicate.

Across the globe, shareholders buy or sell shares in periods of uncertainty or high volatility with greed and fear. Incidents like the one that happened in Lehman Brothers in 2008 led investors to the panic in stocks that sparked the global financial crisis. The crisis made investors scared to classify investment strategies on the basis of underlying and forward-looking indicators. Buyers from the post-crisis crisis centered with changing unsafety on diversifying their portfolios. As a result, the 'Volatility Index (VIX)' was developed in stocks around the world and India to measure volatility. VIX is designed to quantify corporate risk and is also used to assess market reactions as an investor anxiety gauge. The price and the net value of volatility are calculated based on the price of different options. A high value for VIX would mean a substantial increase in the stock index of the investor. A low value of VIX only predicts slight improvement, and hence the relationship between the two is negative. The study will analyse the various measures of demand and their effect on the business flow. This analysis has implications both for academics and practitioners. The analysis has straightforward proof of how the value of the stock index is

influenced by changes in selected variables.

Volatility Index is determined on the basis of the price of various options and the net value of volatility is extracted. A high VIX value would imply that the investor assumes significant improvements in the market index, whereas a low VIX value expects just marginal improvement and thus there is a negative connection between the two. Our analysis would analyse the different demand metrics and their effect on the flow of the market. This research has consequences for scholars and clinicians alike. We have clear proof as to how shifts in chosen variables influence the value of the Stock Index.

REVIEW OF LITERATURE

Gopal, (2019**)** investigate that effect of Volatility Index (VIX) impact of India Stock exchange. It found that VIX influences future prices (positively) are directly and indirect influence on open interest and turnover and estimated that VIX indirectly influences spot prices (negative) far less than its direct effect on open interest, future prices and turnover. The study concluded that open interest and turnover prices are often known as fluctuations and are mirrored in the underlying Spot Prize and suggested that different demand metrics will have significant impact on market movement. Tapal, (2017) aimed to examine the volatility in the India VIX. For this purpose data for six calendar years from 2011 to 2016 is extracted and analyzed yearly, half-yearly and quarterly and tested the hypothesis whether the variance is significant among years, half-years and quarters. The study found that there is no significant difference in the volatility among the six year period implying volatility has been consistent for the selected period of six years. Bantwa, (2017**)** examined the "*relationship between India VIX and NIFTY*" and to find the usefulness of the Volatility Index as a risk management tool for trading on the stock market. It is found that the relationship between NIFTY and VIX is strong as the market moves down and vice versa. It found that two indices were moving in the opposite direction. There is a significant Linear regression between India VIX and NIFTY . It Suggested that there the rates of return for different holding periods in the future CNX Nifty Index and the CNX Midcap 50 Index. In the researcher of Sadarskyc, (2016) mainly focused on Market volatility for CARB countries with respect to uncertainties in economic policy shocks and shocks to commodity price. It reveals that volatility of the stock market is positive impact will rise in the countries stock prices and also stated that investors and policy maker will be more beneficiaries will keen observing the movement of CARB countries votaltiy index. Park, (2015) focused on the variance equivalence relation that must exist between the SPX options and VIX derivatives . It was found that during Lehman Brother crisis SPX option prices were cheaper than the VIX derivatives. It was also found out that only SPX option prices adjusts to eliminate the disturbance . These asymmetric results indicated that most of the price discovery occurs in the VIX derivatives rather than in the SPX options. In the researcher of Chandra et al., (2015) investigate the "*Asymmetrical relationship between the Indian Volatility Index (india VIX) and stock market returns*" and demonstrate that the returns of Nifty are linked negatively with shifts in Indian VIX levels, but the values on these two indices are likely to shift separately in the event of high upward moves. The relationship is less important for larger amounts as the demand moves dramatically downwards. "*India VIX is a keen advocate for a risk management tool in which derivatives based on the Volatility Index can be used as a portfolio protection tool against the worst losses*". The study also find that India VIX capture stock volatility better than conventional volatility steps, including the model class ARCH/GARCH . It concluded that, whether changes can be used as a signal for portfolios in India VIX. In order to keep positive portfolio returns, our timing strategy analysis based on shift in India VIX shows that moving to larger (mid-cap) portfolis when India VIX rises (declines) by a certain percentage point.

Mall et al., (2014) examined the relationship between India VIX and nifty returns. By implementing Johanson's co-integration and Granger causality methods. VECM was applied and the output shows that there was significant relationship exists between VIX Index with returns of Nifty. It also concluded that VIX index has significant positive impact on return prices of Nifty. Nicholas et al., (2011) foucsed to examine the relationship between stock returns and volatility. The study estimated that during the crisis period, volatility change quickly for most stocks, with persistent changes. It stated that before the crisis, more investors are rewarded for market risk, and fewer stocks show a positive relation between equity revenues and volatility during the crisis . It concluded, most inventories have no positive and statistically significant leverage effects. Gahan et al., (2012) analyses the pre and post-derivative volatility patterns of "*BSE Sensex and NSE Nifty*". They estimate the variance, considering both pre- and post-derivative styling characteristics of volatility such as durability, asymmetry, etc. During the periods of 1992-2012 and 1995-2012, they use the regular closing index levels of "*BSE Sensex and NSE Nifty*". In the post-derivative phase, volatility is lower than the pre-derivative. It stated that there is a more volatile effect than the time before the derivative in the post-derivative period. They also notice the asymmetrical impact on volatility has increased through adding derivative materials. During the period of January 2005 to June 2009 in the Indian BSE Sensex Indian index Tripathy et al., (2009) investigate the "*relationship between leverage effect and daily stock returns, volume and volatility*". The study found that the residue has significant ARCH effects and the volatility shocks on the market have been very persistent. They also found that newer news as well as old news have an effect on stock volatility. They find evidence of an impact on the stock market asymmetrical and leverage. It also stated bad news has more impact on trade volumes and market volatility. And concluded that GARCH asymmetries fit better than the GARCH symmetry model and suggested that only the arrival of new information is expected to result to systematic fluctuations in trading volume. Al-Ajmi, (2008): In his research, he discovered new data on the risk aversion determinants of individual investors in Bahrain. Many results were uncovered by the survey of 1000 investors, such as men having a strong risk appetite level, schooling and income being heavily associated with risk appetite level, and so on. Bahrainis were found to be more influenced to invest in the equity market than non–Bahrainians. Investment firms and financial sector advertisers were among those who suggested developing programmes to meet the unique needs of various types of buyers.

Kim et al., (2004) investigates that there is a "*positive bond volatility and stock premium ratios is more decisive when the volatility feedback effects*" are considered for the period from January, 1926 to December, 2000 a result of significant and sustained shifts in market volatility. It estimate a formal volatility feedback model based on market volatility from Markov. It found that "*there is a positive reaction between stock market volatility"* and equity price found to be a negative and substantial volatile. Samanta, (2003) explores the role of the stock market with regard to excess return and volatility in forecasting Indian economy's growth in production. He considers that past values suggest that the stock market has important volatility-feedback effects. In recent years, excess revenue has also been very closely correlated with uncertainty. However there is no simple position for stock market yield and volatility to forecast growth in future production. In order to understand the relationship between stock market returns and volatility and potential production growth in India's economy, further in-depth research is therefore required. Yasaswy, (1993): The author examined how turnaround stocks provide large returns to ambitious buyers. The author have focused on these securities have extraordinary potential and are already underpriced. The stock market, as a barometer of the economy, strongly tracks the patterns of the economy as a whole, because when fundamentals are down, so is the stock market. This scenario presents a better chance for bargain seekers who are naturally bullish buyers. They can follow the watch

with caution policy. In its reporting period of May 1992 to February 1996 Song et al., (1998) addressed the connections of Shanghai's and Shenzhen stock exchanges' returns and volatility in China. GARCH models are used to evaluate the relationship of volatility and returns. It notice that the correlation between returns and volatility is positive. It also found that there is "*Transmission of volatility between the two markets (the spill-over effect of volatility)".* Results in the month ahead of ex ante estimates indicate a similar trend in the conditional return variations of both capital markets. The relationship between stock sales and stock volatility is reviewed by French et al., (1987)**.** During the time between January, 1928 and December 1984, they use regular values of the "Standard and Poor" (S&P) composite portfolio. They use "*Auto-regressive Integrated Moving Average" (ARIMA), "Auto-Regressive Conditional Heteroscedasticity*" (ARCH) and the GARCH model. The anticipated market risk premium is associated positively with predictable stock return volatility. It also find that unforeseen "Stock Market Returns" linked to unforeseen shifts in stock return volatility.

Research Gap

Based on the above mentioned review of literature, it is evident that many researcher's have focused on the volatility effect on the stock market. The following are the reviews, which are in different directions. They are

1. Few papers have focused on the derivative products impact on the market volatility with the comparison of index and non-index stocks.
2. The studies have also highlighted spot market volatility effect on the future security volatility.
3. There were papers, which have focused intra-country stock market volatility
4. The studies also examined the nature of volatility between the different asset classes.
5. The stock returns have measured with the VIX volatility relationship.

Therefore, no research has been attempted to know the investors behavior aspect role investment decision, which place the crucial role in market volatility. The study also makes an effort to examine the effect of VIX future volatility on the VIX spot market volatility. Therefore, the present study is making an attempt to know the role of VIX future volatility in spot market volatility.

OBJECTIVES OF THE STUDY

1. To examined the investors' behavior role in stock market investment decision
2. To know the impact of VIX Futures on VIX Spot of equity market
3. To examine the Volatility effect of VIX Futures on VIX Spot of equity market.

Hypotheses of the study

$H0_1$: VIX Futures has no impact on VIX Spot

H1: VIX Futures has impact on VIX Spot

$H0_2$: There is no Volatility effect of VIX Futures on VIX Spot.

$H1_2$: There is Volatility effect exist of VIX Futures on VIX Spot.

RESEARCH METHODOLOGY

The study adopted the exploratory and qualitative research methodology. The study has considered the secondary and primary data for the examination of framed objectives. The

study has collected the primary data from the equity market investors, who are having minimum three years of experience in stock market.

Sampling Methodology

The study applied the simple random methodology to determine the sample size. The study has collected the primary data from Hyderabad region investors with the framed questionnaire. The study has collected the 384 responses relating to investors behavior. The investor's behavior has been classified in two segments i.e. Irrational and Rational Behavior. The study has considered the three major parameters under the Irrational behavior. They are

1. Heuristic behavior – 4 Factors
2. Prospect Behaviour – 3 Factors
3. Herd behavior – 3 Factors

Rational Behaviour

Under this behavior seven factors were considered, which place the crucial role for the investor's decision making in stock market.

Exploratory Factor Analysis

The study applied the exploratory factor analysis to identify the higher loading factors among the investors' behavior segments of Irrational and Rational. The extracted factors plays the vital role for investors' behavioural role in market investment decision.
The study has considered the secondary data of closing values of India VIX and the closing Prices of India VIX Futures were collected from the National Stock Exchange (NSE) website. The study contains the Value of India VIX and India VIX Futures Closing prices for time period 2014-15 to 2019-20 with total of 1663 daily observations each. All statistics values are calculated with E-views 10 software.

Granger's concept (1969, 1988) is used to check the Causality among the variables. Granger proposed a time series data based approach to determine causality. As per Granger X is a cause of Y if X is able to increase the accuracy of the prediction of Y with respect to a forecast, considering only the past values of Y in forecasting Y. As our study deals with the time series data, the problem with time series data is the non-stationarity. In absence of stationarity, the results of Granger concept will be spurious. So, here the researchers follow the step by step process to apply granger causality test. So, in the first step to check the stationarity of the data ADF test is applied at level and at 1st difference followed with final step to check causality Granger Causality concept is used.

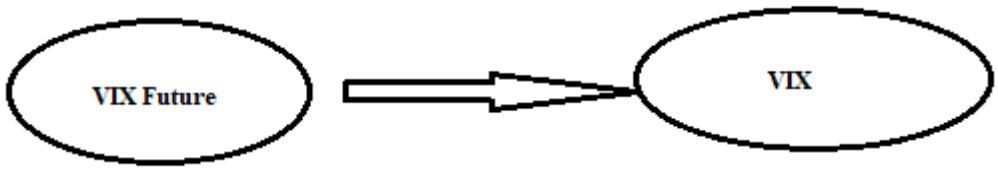
The present estimation of the VIX futures term structure (following Aijio, (2008); Krylova et al., (2009); Fassas, (2012)) has conducted on each trading day by fitting a linear model of the available futures prices and spot VIX level based on the Ordinary least squares criterion. In this study, it estimated the impact of VIX future on VIX by using Ordinary least Square.

Auto Regression Conditional Heteroscedasticity is applied to know the volatile effect in VIX.

Conceptual Framework

The study examined the role of VIX future price effect on the VIX spot market and volatility of spot is having influence by the future volatility. The conventional studies will

examine the spot effect on the future market but in the present study is making a different approach, where VIX derivative is having the impact on the price volatility.



The VIX future has been considered as independent variable and the VIX spot market considered as dependent variable. The study framed the VIX derivative – Future effect on the VIX spot market

DATA ANALYSIS & INTERPRETATION

Objective – 1: To examine the investor's behavior role in stock market investment decision.

The study has considered the primary data from the experienced equity market investors in likert scale opinion structured questionnaire. The study applied the sample adequacy test to run the exploratory factor analysis in Table 1.

Table 1
SAMPLE ADEQUACY TEST

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.872
Bartlett's Test of Sphericity	Approx. Chi-Square	131.169
	Df	136
	Sig.	.021

Source: Primary Data

KMO test calculated values is 0.872 that is above the recommend level (0.70) which signifies adequate of data sampling. Further, Bartlett's test of sphericity indicates that chi square calculated value is greater than critical value that concluded significant of data. Thereby confirming that, segments considered in the study are considered for Factor Analysis in Table 2.

Table 2
INVESTORS BEHAVIOUR ROLE IN INVESTMENT DECISION

Factors	1	2	3	4	5
Over confidence	0.655				
Representativeness	0.492				
Anchoring	0.859				
Gamblers' fallacy	0.285	Heuristic behavior			
Risk aversion		0.754			
Loss aversion		0.642			
Mental accounting		0.268	Prospect Behaviour		

Other investors' decision of purchasing and selling			0.381	
Other investors' decision of the stock volume			0.683	
Other investors' decision on the type of stock			0.285	Herd behavior
Personal and Financial Needs				0.382
Firm Image				0.721
Accounting and Financial Information				0.298
Neutral Information				0.515
Advocate Recommendation				0.682
Decision Making Process				0.584
Stock Indices Performance		Rational Behaviour		0.783

Source: Primary Data

Component 1

The table above explains regarding investors behavior towards market volatility. The outcome have determined in the heuristic behavior is, the highest parameter needed to concentrate is "*Anchoring*" with 0.859, next is "*over confidence*" 0.655 this means that there is more the over confidence levels in the investors behavior and the anchoring which needs to be said understandably for the investor so that he/she could be able to invest in the market which leads to increase in the market volatility. 0.492 is the value for the factor "*Representativeness*" which presents the person representing the keen about the investor. Here the least factor which are lower loading are "*gamblers fallacy*" with 0.285.

Component 2

In this prospect behavior the high loading factor is "*risk aversion*" (0.754) and "*loss aversion*" (0.642) implies the state of risk an investors can handle and loss he is capable enough of baring is important to enhance or decrease the market volatility. As per investors behavior market will change vice-versa.

Component 3

Herd Behavior that explains the "Other investors' decision of the stock volume" with 0.683, "*Other investors' decision of purchasing and selling"* with 0.381 and *"Other investors' decision on the type of stock*" with 0.285. Here, the results indicated that the investors with the herd behavior has the impact of it on market volatility with respect to the decision taken by investor on the stock volume and the lowest factor that affects market volatility is investors decision regarding the type of the stock that he/she chose to invest (Blasco, 2011).

Component 4

Rational Behaviour implies the highest loading factor seemed to be in all the factors except "*accounting and financial information*" with 0.298 and "*personal and financial needs*" with 0.382. The results of the study implies the highest in all these factors are mainly "*stock indices performance"* 0.783 which implies that there is the huge impact through the investors behavior on the market volatility is by stock indices and next is followed by "*firm image*" depending upon certain organization fame or image the market prediction will change. The market volatility is changed through the investors behavior can be by mainly stock indices performance and the respective firm image.

Objective 2: To know the impact of VIX Futures on VIX Spot of equity market

This objective made attempt to know the impact of VIX Futures on VIX Spot. The study is based on secondary data for the period of 6 years i.e., from 2014-15 to 2019-20. Ordinary Least Method applied, before the Granger Causality test applied to know the directional effect of the variables. Below table, explain as follows Table 3

Table 3
PAIRWISE GRANGER CAUSALITY TESTS

Sample: 1 1662			
Lags: 2			
Null Hypothesis :	Obs	F-Statistic	Prob.
NVIX does not Granger Cause SVIX	1660	46.6641	0.032
SVIX does not Granger Cause NVIX		10.7293	0.014

Source: Compiled through Secondary data

Table represents the granger causality with respect to VIX Future and VIX Spot. The result indicates that from f-statistic the calculated value for the VIX Future to VIX Spot and VIX Spot to VIX Future is greater than the critical value and from the p-value it say that "*there is a bi-directional effect exist between the VIX Future and VIX Spot*". Thereby, the study result stated there is a granger cause of VIX Future to VIX spot.

Below Table 4 depicts the Ordinary Least Square with respect to VIX Future on VIX Spot.

Table 4
IMPACT OF VIX FUTURE ON VIX SPOT

Dependent Variable : SVIX				
Method: Least Squares				
Sample : 1 1662				
Included observations : 1662				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
NVIX	0.983325	0.005758	170.7744	0.0000
R-squared	0.637903	Mean dependent var		17.41964
Adjusted R-squared	0.637903	S.D. dependent var		7.285828
S.E. of regression	4.384213	Akaike info criterion		5.794499
Sum squared resid	31926.61	Schwarz criterion		5.797757
Log likelihood	-4814.228	Hannan-Quinn criter.		5.795706
Durbin-Watson stat	0.155843			

Source: Compiled through Secondary data

The table represent the influence of VIX Future on VIX Spot for the period of 2014-15 to 2019-20. Here, the study considered VIX Future closing prices as Independent variable and VIX spot closing prices as Dependent Variable. The result indicates that VIX Future coefficient value is 0.9832, which indicates unit increase in the Future VIX will increase the Spot VIX by 0.983 units. From p-value it signifies that "*rejection of null hypothesis and acceptance of Alternative hypothesis*" i.e., VIX Future has significant positive impact on VIX Spot.

3rd objective: To examine the Volatility effect of VIX Futures on Spot of equity market.

This objective made attempt to identify the Volatility effect of VIX Futures on VIX Spot for the period of 6 years**.** Kwon et al., (1997) stated that the stock market is index of

emotions that can have negative or positive effects on the Volatility Index. To justify this GARCH model has been and to apply GARCH model, the study should satisfy Condition 1 (Heterokedasticity test) and Condition 2 (Residual Graph) and the following is the hypothesis as follows.

H_0: There is no ARCH effect exist with respect to VIX Future and Spot.

H_1: There is an ARCH effect exist with respect to VIX Future and Spot.

Heterokedasticity test - Condition 1

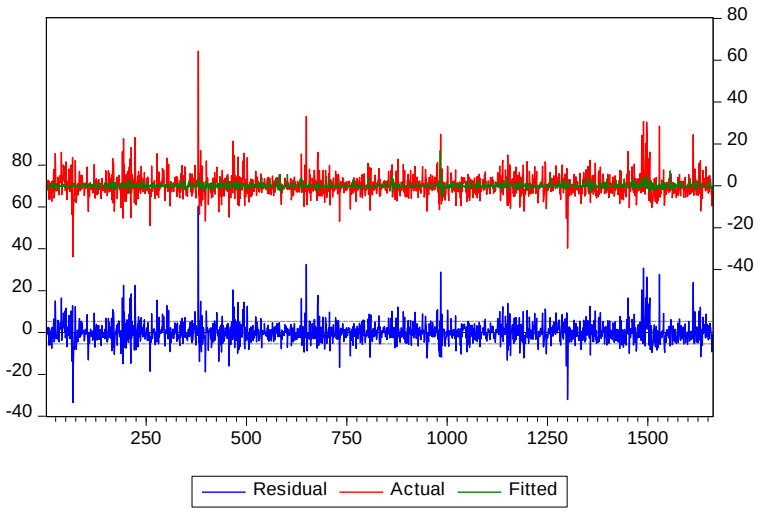
Before applying ARCH models, it is mandatory to examine whether ARCH effect is exist or not. If it exists, then the next step is to run condition 2 i.e. residual graph, if condition 1 and condition 2 are satisfied, then the study made an attempt to determine the ARCH effect is exist between the variable. In order to determine ARCH effect exist on the data set, Heteroskedasticity test is applied and shown in Table 5.

Table 5
HETEROSKEDASTICITY TEST

Heteroskedasticity Test: ARCH			
F-statistic	4.29627	Prob. F (1,1659)	0.02783
Obs*R-squared	4.71554	Prob. Chi-Square (1)	0.02713

Source: Compiled through Secondary data

From the Table 4, it is found that, the F-statistic calculated value (4.29) is noticed to be greater than the critical value (3.8508), and the chi-square probability value seem to be statistically significant at five per cent level of significance ($p<0.05$), which signifies condition 1 is satisfied Figure 1.



Source: Compiled through Secondary data

Figure 1
RESIDUAL GRAPH

Graph represents the residual line with respect to VIX Future and Spot closing price; here the blue line i.e., the residual line is crossing the fitted line, which formed at different interval for the period of 2014-15 to 2019-20. Therefore, it indicates as ARCH effect exist which states condition 2 is satisfied. Hence, condition 1 and condition 2 found to be satisfied

which indicates rejection of Null hypothesis and Acceptance of alternative hypothesis i.e., ARCH effect is exist.

ARCH Family

Since, ARCH effect is exist with respect to VIX Futures and Spot, it is inferred that the ARCH family models can be used to determine whether the effect of VIX futures on Spot. Here, for the selection of the optimum model among the ARCH family, criteria such as the Akaika Information Criterion (AIC) and the Schwarz Information Criterion (SIC) are used which indicate that the model with the lowest AIC and SIC values would be the optimum model for estimating the effect of VIX Futures on Spot and result as follows Table 6.

The table depicts the one of the economic factors i.e., VIX Futures effect on VIX Spot using ARCH family models. The following is the hypothesis

H0: VIX Futures has no effect on VIX Spot.

H1: VIX Futures has no effect on VIX Spot.

Table 6
GARCH EFFECT OF VIX FUTURE VOLATILITY ON VIX SPOT VOLATILITY

Dependent Variable : RSVIX				
Method: ML ARCH – Normal distribution (BFGS / Marquardt steps)				
Sample (adjusted) : 2 1662				
Included observations : 1661 after adjustments				
Convergence achieved after 20 iterations				
Coefficient covariance computed using outer product of gradients				
Presample variance: backcast (parameter = 0.7)				
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)				
Mean Equation				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
RNVIX	0.149843	0.012706	11.79330	0.0000
Variance Equation				
C	3.929810	0.623829	6.299503	0.0000
RESID(-1)^2	0.090470	0.009353	9.672319	0.0000
GARCH(-1)	0.777597	0.027686	28.08632	0.0000
R-squared	0.827156	Mean dependent var		0.148682
Adjusted R-squared	0.837156	S.D. dependent var		5.455413
S.E. of regression	5.380830	Akaike info criterion		6.135464
Sum squared resid	48062.53	Schwarz criterion		6.148505
Log likelihood	-5091.503	Hannan-Quinn criter.		6.140297
Durbin-Watson stat	2.064107			

Source: Compiled through Secondary data

It observed from GARCH model that the coefficient value is 0.7775, which indicates unit increase in VIX Future will increase by 0.775 units. Further r-square of the model is 0.827 and probability of the model is less than 0.05 which indicates reject null hypothesis and accept alternative i.e., there is a significant volatility effect of VIX Futures and Spot.

FINDING OF THE STUDY

The study examined the investors' behavior role in market investment decision. The

study result found that over confidence and Anchoring plays the vital role in Heuristic behavior influencing the investor's decision. The study found that herd behavior factor i.e. stock volume generated by the volume influences the investors' decision. Rational behavior factors such as company image, recommendations and stock indices movement also plays the critical role in investors' decision making.

Volatility measures the pace of market upward or downward movement, and how wildly, in the near future, it will change, i.e. the 'rate and complexity of price changes'. Since VIX is an estimate of future volatility, it has a direct impact on the future price and spot market (VIX). "*It has traditionally been believed that Volatility (VIX) plays a key role in price determination and by tracking volatility, price behaviour can be easily understood Shenbagaraman (2003)*". The study found that the unit increase in the future Volatility will increase the spot by 0.775 units. It also states that VIX helps investors to manage risk effectively and diversify the portfolio and uses it to develop appropriate trading strategies that allow investors to decide when to enter or exit the market.

CONCLUSION OF THE STUDY

The present study has been focused on the investors behavior role in stock market investments decision making. The study has considered the irrational and rational behavior related factors role in the investments decision. The study adopted the qualitative and exploratory research methodology. The study applied the simple random methodology to determine the sample size for the collection of primary data. The study has considered the Hyderabad region of Telangana state with the minimum of three years of experience of stock market investments. The study observed that irrational and rational behavior factors plays the crucial role in decision making of the investors. The study examined the impact of the VIX future on the VIX spot market. Normally in the market spot will have the impact on the future but in this scenario futures effect the study examining on the spot for the volatility index of National Stock Exchange. The study has considered the historical time series data from the period of 2015 to 2020 years and standardized with the stationarity tests with support of E-Views software. The study examined the impact of Vix futures on the spot of Vix and the result stated that it is having the significant impact on the rise of the Vix spot market. The study also made an attempt to know the influence of future of VIX volatility on the spot volatility of Vix. The study result reveals that Vix spot volatility significantly influenced with the fluctuations future Vix.

Further Research Scope

The present study has been emphasized on the VIX future impact on the VIX spot volatility. Based on the present study it has been recommended that the effect of economic factors on the movement of VIX comparison with the Nifty future volatility.

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