Innovations

Impact of Investment Sentiments on Stock Market Returns in Nigeria

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Abstract: *This study investigated the effect of investment sentiments on stock market returns on Nigerian Exchange Group for the period of 32years spanning from 1990 to 2022. The study employed four sentiments proxies: consumer confidence index (CCI), initial public offer (IPO), dividend premium (DIP), and turnover ratio against dependent variable stock market returns proxy by all share index. The ordinary least square regression (OLS), error-correction models (ECM), unit root and co-integration test were adopted. The study found that CCI, IPO and DIP all have a positive relationship with stock market return proxy (ASI). Meanwhile, DIP appears to be insignificant. Furthermore, turnover ratio exacts a negative but significant effect on stock market return in Nigeria. The study recommends that investors' sentiment can have either a positive or negative impact on the growth and progress of the Nigeria exchange group. Also, stockholders should not ignore the significance of fundamental and technical analyses in their investment decision making and in predicting stock prices in developing economy like Nigeria where market integrity is low. Also, it is suggested that behavioral factors be considered in empirical asset pricing models for emerging stock markets.*

Keywords: *Sentiments, Investors, Market Return, Stock, Consumer Confidence Index*

1.0 Introduction

Over the years, the incessant irregularities in global stock market have brought great challenges to classical finance theories as a result of the activities of irrational traders who make investment decision based on emotions, biases, or flawed reasoning rather than objective analysis and sound investment principles (Li & Liu, 2020). However, the "Efficient Market Hypothesis (EMH)" posits that stock market globally is perfectly efficient and that asset prices reflect all publicly available information. This implies that movement in equity prices are difficult to forecast with a high degree of accuracy (Nageri & Abdulkadir, 2019). The EMH stood as the leading theoretical framework for stock market analyses for decades (Hu, Sui & Ma, 2021), stating that market participants are rational and asset prices fully reflect all publicly and privately available information. However, the efficient market hypothesis has faced quite a number of criticisms which emanated from the observed shortcomings in its adoption (Gârleanu & Pedersen, 2018; Chen & Sherif, 2016).As a consequence, the inability of traditional asset pricing models to explain some of the striking events in the history of the stock market has led to the emergence of behavioural finance, which argues that some of the anomalies observed in the stock market can be attributed to noise created through trades which are motivated by sentiment and recognizes the impact of human emotions such as greed, fair or panic on investment decision has become a topic of discussion in financial literature (Rupande, Muguto & Muzindutsi, 2019; Chandra & Thenmozhi, 2017). Relevant studies show that behavioural biases, poor responsive ability to information and investors' sentiment can attract more irrational traders into the market, thereby increasing market instability and reducing market efficiency resulting in deviation of prices from intrinsic value for a protracted period (Latif, et. al., 2021). Conceptually, investor sentiment is the general feeling, mood, belief or expectation of market performance. It is a speculative tendency of investors or a general state of optimism or pessimism about stocks, which originates from the trading of irrational traders in the capital market. (Zhang, Xue, Zhang & Ding, 2020). Similarly, stock returns are the gains investors generate from trading on the stock market which could be in the form of profits or dividends given by the company to its shareholders at the end of every quarter.

1.1 Statement of the problem

Several studies on investors' sentiment have contributed to the advancement of behavioural finance, with a collection of variables for the measurement of sentiment and a significant focus on stock returns. However, the debate on investors' sentiment was intensified in the financial literature by the inconsistent findings of previous studies (Koleosho, Adegbie & Ajayi Owoeye, 2020; Jegadeeshwaran & Basuvaraj, 2020). This therefore highlights the need to find out what in reality is responsible for variation in stock return which necessitated the need to incorporate investors'

sentiment as a potential explanatory variable to explain the fluctuations in stock return in both emerging and developed economies (Etale & Eze, 2019). This study offers novel insights for stockholders, investment professionals, academics, and the general investment environment by addressing the issues of susceptibility of stock return to investors' behaviours. Drawing from the above, this study addresses the subsequent research questions: what effect does investors' sentiment have on equity return in Nigeria? Despite a growing body of literature on the influence of investors' sentiment on stock return over the last decades, there is no consensus on the indicator or variable to measure investors' sentiment. According to Sakariyahu, et al. (2020) and Dalika and Seetharam (2015), empirical studies have employed several indicators (such as trading volume, dividend yield, new issues, closed end fund, initial public offering, new equity issue, turnover ratio, etc.) to capture investors' sentiment. Although, prior studies found direct investors' sentiment to exert influence on stock market performance among emerging markets (Cheng, 2019; Pandey & Sehgal, 2019) which substantiate the findings of Alajekwu, Obialor, Okoro & Ibenta (2017) who reported investors' sentiment to have significant impact on stock market performance in Nigeria. However, the aforementioned studies ignored the impact of indirect investors' sentiment on stock return. Thus, studies on the nexus between investors' sentiment and stock return in developing economies remain open for further discussion. However, most of the studies relied on different indicators based on each country's environment, in consequence, the results of these studies cannot be generalized to explain the impact of investor sentiment on stock returns because market regulations vary, and different indices are published from one country to the other (Chen, Zhao, Li & Lu, 2020). This study is different from other studies because it employed both direct and indirect sentiment indicators to quantify investor sentiment in Nigeria, in order to eliminate bias and reliability challenges that may occur in survey data. Therefore, in this study, it is paramount to determine whether or not investors' sentiment has an impact on stock returns in Nigeria. The specific objectives include: 1. to examine the effect of Consumer Confidence Index on stock market returns. 2. To determine the effect of Initial Public Offer on stock market returns. 3. To assess the effect of Dividend Premium on market returns. 4. To ascertain the effect of investment sentiment on Stock price volatility.

1.2 Hypothesis development

H_{01} Consumer confidence index has no significant effect on stock market returns in Nigeria.

H_{02} Initial public offers have no significant relationship with the stock market returns in Nigeria.

H_{03} Dividend premium has no significant effect on stock market returns in Nigeria.

Ho_4. Turnover ratio has no significant relationship with stock market returns in Nigeria.

2.0. Review of Literature

2.1. Conceptual Review

2.1.1. Concept of investment sentiment

Financial markets are composed of mainly three types of investors, first is the rational traders, whose decisions are solely based on fundamental knowledge, then second type are the emotional investors, making decision on emotions, self-perceptions and finally the noise traders, who make random decisions without any logical basis (Sakariyahu, Sherif, Paterson, & Chatzivgeri 2020).). Noise traders are present in almost every stock market but their impact is influenced by whether the market is emerging or stable enough to absorb such disorders or distortions caused by these noise traders.

Pandey & Sehgal, (2019) mention that some researchers accredit investor sentiment as an inclination to trade on noise, while the same term is employed to make particular reference to investor optimism or pessimism. The term sentiment is also associated with emotions; thus, the media accredit it as investor fear or risk-aversion. Pandey & Sehgal, (2019 regarded the investor sentiment in terms of beliefs and defined it as the representation of market players 'beliefs about future cash flows in connection with some objective standard which is the correct fundamental value of the stock.

One might define investor sentiment as optimism or pessimism about stocks in general. Nageri, & Abdulkadir, (2019) defines sentiment as representing market participants' beliefs about future cash flows relative to some objective norm, namely the true fundamental value of the underlying asset. Nageri, & Abdulkadir, (2019) further, asserts that a definition of sentiment along these lines captures why sentiment is important in the first place and by restricting our attention to this particular notion of sentiment, it is possible to develop a cohesive model, relying on specific assumptions and pre-existing theories of asset pricing and investor behaviour.

2.1.2. Description of Variables.

(1). Consumer confidence index (CCI)

Consumer confidence is said to be the expression of the degree of optimism of the consumers on the state of the economy (Gunathilaka, 2017). The consumers as a result of the state of the economy normally express their confidence in the market through their activities of saving and spending. The idea behind the consumer confidence index (CCI) is that if consumers are optimistic, they tend to purchase more goods and services. This increase in spending inevitably stimulates the whole economy (Haritha & Rishad, 2020).

(2). Turnover

Other measures of trading volume include the number of trades and the average trade size defined over a period of time (within a trading day) (Gârleanu, & Pedersen 2018). The expected holding period for a type-i investor is longer than the expected holding period for a type i+1 investor. Further, investors maximize the expected returns on their portfolios per unit of time. With these assumptions, Ghonghadze and Lux (2016)) show that assets with higher spreads are allocated to portfolios with (the same or) longer expected holding periods (Proposition 1, the clientele effects).

(3). Dividend premium

Freybote, and Seagraves, (2017) define the dividend premium as the difference between the average market-to-book-value ratios of dividend payers and non-payers. When dividends are at a premium, firms are more likely to pay them, and are less so when they are discounted. In other words, on the margin, when the prevailing demand for the stock market dividend premium is high, the propensity to pay dividend increases whereas with a low demand, the propensity to pay dividends decreases.

(4). Initial Public Offerings

The IPO market is often viewed to be sensitive to sentiment. Other than the closed-end funds discounts, there are still numerous sentiments measures that researchers employ in their studies with various reasons and justifications. For example, Daiane, Newton, Marco, and Jessica (2019) relate the net withdraws from open-end funds (the mutual fund redemptions) and the volume of initial public offerings (IPO) with individual investor sentiment. Etale, and Eze, (2019) use the mutual fund redemptions and the odd-lot sales to purchases ratios, in additional to the closed-end fund discounts, as their sentiment measures.

2.2. Theoretical Framework

2.21. Efficient Market Hypotheses (EMH) Theory

This study is anchored on the theory of Efficient Market Hypotheses (EMH) because of its disposition to changes in the information, noise, hearsay and bandwagon effect all of which are part of investors' sentiment. EMH equity prices would always reflect their true values and any deviation is immediately restored but this restoration process might be limited by information asymmetry and investors' irrationality. Rehman (2013) mentioned that the traditional concept of efficient market hypothesis is based on the principle that the prices of stock incorporate all available information and no investor can earn abnormal returns based on some private information has prevailed for a long time in explaining the stock returns. Information asymmetry and investors' irrationality are components of investors' sentiments. The Efficient Market Hypothesis

(EMH) is one of the fundamental equity price models used to explain the movement of prices around their fundamental values. The theory relates important worth to the possible pay of stocks and that the current prices of any equity traded are based on its essential price. The fundamental value of equity in the theory was related to all forms of new information and any discrepancies between the current prices and the fundamental values would be random and short-lived. The basic theme of the random walk hypothesis theory of equity prices determination is traced to the assumption that the fundamental value of equity is determined by new information and when this new information gets to the market, the current prices would adjust to them immediately.

2.2.2. The Prospect Theory

The investors' sentiment and stock return nexus can be explained in the context of the prospect theory which was proposed by two psychologists Daniel Kahneman and Amos Tversky in 1979, and has since become a widely accepted model for understanding human decision making or how investors make investment decisions under conditions of uncertainty and risk. The central idea of prospect theory is that investors' decisions are not based on market fundamentals, but on their perception of gains and losses relative to a reference point, rather than market fundamentals. However, the reference point is subjectively determined and varies among investors, influenced by their beliefs and the information they have access to. According to the theory, investors are risk-averse when it comes to gains and risk-seeking when it comes to losses. Hence by implication, investors are more likely to choose a certain outcome when presented with a choice between two positive options, and are more willing to take a chance on an uncertain outcome to avoid a certain loss. Hence, investors are more likely to take risks when they perceive potential gains, but become more risk-averse when they perceive potential losses. This implies that investors' sentiment can influence stock returns as investors may be more likely to buy or sell stocks based on their perception of potential gains of losses. Unlike the efficient market hypothesis which ignored the influence of human behaviour in its assumptions, prospect theory established that investor sentiment can have a significant impact on investment decisions such that when investors are feeling positive and optimistic about the market, they are likely to take risks and buy stocks. Whereas, when investors are feeling negative and pessimistic, stock returns tend to be lower as investors are more likely to be risk-averse and sell stocks (Lekovic, 2019). Therefore, this theory is important for financial professionals to suit a portfolio to a client's risk profile, and for investors to predict stock prices using technical and fundamental analysis rather than psychological biases

2.3 Empirical review

Ashour, Hao and Harper (2022) examined investor sentiment, investing style and momentum as important condition affect asset price predictability. It was documented that style returns have predictive power for future stock returns in high sentiment periods, but not low sentiment periods. In addition, the study found that the correlation between style returns and stock returns explains the variation in momentum profits in high sentiment periods, but not low sentiment periods.

Gao, Zhao, Sun, and Zhao (2022) documented the effect of investor sentiment on stock volatility with emphasis on multi-source data in China's green stock markets. It was found that both sentiment indices impose significant positive impacts on realized, continuous, and jump volatilities, where trading sentiment is the main factor. In addition, that investors sentiment is positively correlated with the information asymmetry

Abdullahi, Oyedeko, Uthman, and Dangana, (2022) examined the effect of investors' sentiment on momentum of stock prices for winner and loser stocks. The study used Expo-factor research design and the study population includes all companies listed on the Nigeria stock exchange which consist of 155 stocks. The raw stock price data for this study is gathered from Nigerian Group of Exchange. The study employs monthly closing prices adjusted for dividends for some selected quoted firms on the Nigerian Group of Exchange within the span of 3/01/2017 to 31/12/2020. Sixty firms that are consistently traded for the period are selected through purposive sampling technique. The estimation technique used is ordinary linear regression and it reveals that there is positive relationship between trading volume for losers and informed investors; while information or representativeness or both influences the trading volume for winners.

Pandey and Sehgal (2019) determined investor sentiment and its role in asset pricing in India. The study experiment with the construction of alternative investor sentiment indices. It evaluates the role of the sentiment-based factor in asset pricing to explain prominent equity market anomalies such as size, value, and price momentum for India. Based on the findings, the Composite Sentiment index leads other sentiment indices currently in vogue in investment literature. The asset pricing models, including the more recent Fama French 5 factor model, are not fully able to explain the small firm effect which is captured by our sentiment-based factor which seems to proxy for the price over-reactions.

Rupande, Muguto and Muzindutsi (2019) assessed investor sentiment and stock return volatility in South Africa. The study hypothesized that there are movements in risk that are driven by volatility linked to sentiment-driven noise trader activity whose patterns are irreconcilable with changes in fundamental factors. The results show that there is a significant connection between investor sentiment and stock return volatility

which shows that behavioural finance can significantly explain the behaviour of stock returns on the Johannesburg Stock Exchange.

Rashid, Fayyaz and Karim (2019) evaluated investor sentiment, momentum, and stock returns as an examination for direct and indirect effects using sentiment and momentum factors on market risk, size, and value premiums by estimating the interacted asset-pricing model. To carry out the empirical analysis, monthly stock returns of firms listed on the Pakistan Stock Exchange are used for the period 2000–2013. The empirical results indicate that both investor sentiment and momentum factors have a significant impact on the required rate of returns. Specifically, it is found that the premium for both factors is positive and statistically significant.

Pei-En (2019) determined if investor sentiment and investor behaviour have considerable influence on the stock return. The study searched for predictable indicators and measure them based on two approaches: One is the investor behaviour indicator measured by using proxy variables (such as short-term rate of return, the long-term average rate of return, turnover rate, and earning-to-price ratio) and the other is the investor sentiment measured by using proxy variables (investor sentiment index, the consumer confidence index, and the market volatility index).

Concetto and Ravazzolo (2019) investigated how investor sentiment affects stock market returns and evaluates the predictability power of sentiment indices on U.S. and EU stock market returns. As regards the American example, evidence shows that investor sentiment indices have an economic and statistical predictability power on stock market returns. Concerning the European market instead, the investigation provides weak results. Moreover, comparing the two markets, where investor sentiment of U.S. market tries to predict the European stock market returns, and vice versa, the analyses indicate a spillover effect from the U.S. to Europe.

Khan and Ahmad (2018) examined bidirectional contemporaneous and lead-lag relationships between investor sentiment and market returns of Pakistan from 2006 to 2016. The study employed a direct proxy namely Google search volume index (GSVI) and nine other indirect proxies. Besides conventional regression and the VAR model, the study applies Geweke's (1982) tests to investigate the nature of relationships between sentiment and returns. The results indicate a substantive role of sentiment in dragging the stock market away from its sustainable path as implied by economic fundamentals.

Ahmed (2018) conducted a study on the Pakistan stock market to find the relationship between stock market return and volatility. Different market proxies are used to examine the investor sentiments like Stock traded volume, first-day return on IPOs, Dividend Premium, Mutual Funds Flow, and Close Ends Funds Discount, Margin Borrowings, Stock Turnover Ratio. Investor sentiments are used as an independent variable and stocks market volatility is used as a dependent variable. The ARCH regression model was used to examine the association among dependent (Stocks

Market Volatility) and independent variables (Investor's sentiments). Arch regression model effect that it is a good fit to our research model, and according to results show that Stock Traded Volume Negative and insignificant relationship with volatility, First-day return on IPO have a positive but insignificant relationship with stock market volatility; Dividend Premium has a negative and significant relation with stock market volatility, Margin Funds Flow have a positive and significant impact on stock market volatility, Closed-end Funds Discount has a positive but insignificant effect on stock market volatility, Margin Borrowings have a negative and insignificant impact on stock market volatility, Stock Turnover Ratio have a positive and significant relationship with stock market volatility.

3.0. Methodology

The study adopts the ex post facto research design and utilizes time-series data for the period of 32 years (1990-2022).This period is adopted because of the availability of data. The secondary data for the study were obtained from the Central Bank of Nigeria's Statistical Bulletin (various issues), and the Nigeria Exchange Group. Data for this study are annual time series data ranging from 1990 through 2022. This study employed four sentimental proxies. The study adopted all share price index (ASI) to represent the stock market return which is a dependent variable. The ordinary least square regression (OLS), error-correction models (ECM), unit root and co-integration test were adopted. In this study, the main research objective was centered on examining the impact of investors' sentiment on stock market prices return in Nigeria. The dependent variable (stock market return) was proxied by all share price index (ASI) while the explanatory variables are consumer confidence index, turnover, dividend premium, and initial public offer.

This study modeled after the empirical study of Zubairu (2019) though with little modifications since the studies of Lucky (2017) did not capture sensitivity to market risk as a bank soundness indicator which the current study did. Hence, our model is represented thus:

$ASI = \beta_0 + \beta_1 CCI + \beta_2 IPO + \beta_3 DIP + \beta_4 TNR + \mu it.$ (1)

ASI =All share index
CCI =Consumer confidence index
IPO =Initial public offer
DIP =dividend premium
TNR =turnover ratio.
β_0 =Constant Value
β_1- β_4 =Parameter Estimates

4.0 Data Analysis

4.1 Descriptive Statistics

The descriptive statistics show the description of the mean, standard deviation and normality test. Below is the descriptive statistics of the variables under the period of 1990 to 2022.

Table 1: Descriptive statistics

	ASI	CCI	IPO	DIP	TNR
Mean	22162.88	1.593750	6.215938	5.059375	6.728437
Median	23965.15	-1.500000	3.560000	4.025000	6.825000
Maximum	57990.22	17.00000	61.09000	17.02000	17.56000
Minimum	783.5000	-15.00000	-0.170000	0.840000	1.020000
Std. Dev.	15374.51	7.799336	12.13868	4.178346	3.557069
Observations	32	32	32	32	32

Source: Econometric Views Version 9.0 Output (2024)

From table 1 above the mean values for ASI, DIP and TNR are greater than their standard deviation values. This implies that there exists a low volatility around their mean. Meanwhile, mean values for CCI and IPO are lower than their standard deviation values displayed. This implies that there exists a wide dispersion (volatility) among the variables. Again, the mean values for all variables have a positive mean value implying that the stock market return is positive.

Table 2: Summary of Correlation Analysis

	ASI	CCI	IPO	DIP	TNR
ASI	1.000000				
CCI	-0.124926	1.000000			
IPO	0.138919	0.070535	1.000000		
DIP	0.159717	-0.111629	-0.046812	1.000000	
TNR	0.807135	-0.009778	0.219627	0.205467	1.000000

Source: Econometric Views Version 9.0 Output (2024)

The result of correlation matrix indicates that IPO, DIP, TNR have a weak positive correlation with ASI except TNR with higher relationship. This means that stock price in Nigeria is more likely to respond to TNR variations than to CCI, IPO and DIP. However, CCI has a weak negative correlation with ASI.

Table 3: Summary of ADF Test

ADF test at Level (1)(0))				
Parameter	ADF test statistic	Test critical value @ 5%	Prob.*	Decision
ASI	-1.6487	-2.8332	0.3222	Non-stationary
CCI	-2.5673	-2.8332	0.2334	Non-stationary
IPO	-3.7736	-2.8332	0.0225	Stationary
DIP	-2.9211	-2.8332	0.4219	Non-stationary
TNR	-3.4483	-2.8332	0.0332	Stationary
ADF test at First Difference (1)(1))				
Parameter	ADF test statistic	Test critical value @ 5%	Prob.*	Decision
ASI	-5.9834	-2.9133	0.0001	Stationary
CCI	-5.4083	-2.9133	0.0001	Stationary
IPO	-7.4893	-2.9133	0.0000	Stationary
DIP	-9.5843	-2.9133	0.0000	Stationary
TNR	-4.5594	-2.9133	0.0027	Stationary

Source: Econometric Views Version 9.0 Output (2024)

The table above shows the order of integration (stationarity) of the series used for the study. The unit root test revealed that initial public offer (IPO) and turnover ratio (TNR) attained stationary at levels. However, when subjected further, All share index (ASI), Consumer confidence index (CCI) and Dividend premium (DIP) became stationarity at first differencing.

Table 4: Co-integration test

ARDL Bounds Test		
Test Statistic	Value	K
F-statistic	2.681100	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.75	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Econometric Views Version 9.0 Output (2024)

From the Table 4.6 above, it can be observed that the value of the F-statistic 2.681100is less than the 5% critical values at I(0) and I(1) bounds. This implies that the estimated model does not exhibit any co-integration.

Ramsey RESET Test Equation: UNTITLED Specification: ASI(-1) CCI IPO DIP TNR C Omitted Variables: Squares of fitted values			
	Value	Df	Probability
t-statistic	2.776285	32	0.6105
F-statistic	7.707756	(1, 31)	0.6105
F-test summary:			
	Sum of Sq.	Df	Mean Squares
Test SSR	4.43E+08	1	4.43E+08
Restricted SSR	1.82E+09	25	72896412
Unrestricted SSR	1.38E+09	24	57475221

Source: Econometric Views Version 9.0 Output (2024)

The Ramsey reset test above proves that none of the study variables are omitted. This is because its p-value of 0.6105 is greater than the 0.05 level of significance. On this note, the study boldly state the model is stable and fit for prediction.

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.255936	Prob. F(5,25)	0.1799
Obs*R-squared	9.638179	Prob. Chi-Square(5)	0.0862
Scaled explained SS	16.65290	Prob. Chi-Square(5)	0.0752

Source: Econometric Views Version 9.0 Output (2024)

From the table above, the P-value of the chi-square which stood at 0.1799. This gives us prove that there is absence of Heteroskedasticity in the study, since it is not significant at 5%. Thus, the null hypothesis that states that the residuals have no constant variance and zero mean is rejected. Hence, the study concludes that the model is Homoskedastic (i.e. it has equal variance). On this note, the study boldly states the model is reliable and fit for prediction.

Table 5: Regression result

ARDL short run estimation result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CCI)	3.1221	1.1635	2.6833	0.0360
D(IPO)	7.4307	1.8883	3.9352	0.0023
D(DIP)	0.8511	4.3175	0.1971	0.8222
D(TNR)	-4.1706	1.8671	-2.2337	0.0212
Coint Eq (-1)	-0.7649	0.2555	-2.9937	0.0318

R-squared	0.736721	Mean dependent var	52.52434
Adjusted R-squared	0.658449	S.D. dependent var	23.22873
S.E. of regression	12.35589	Akaike info criterion	7.155844
Sum squared resid	2737.373	Schwarz criterion	7.613748
Log likelihood	-103.8553	Hannan-Quinn criteri.	7.283374
F-statistic	6.893244	Durbin-Watson stat	1.975562
Prob(F-statistic)	0.000022		

Source: Econometric Views Version 9.0 Output (2024)

Summary of test of hypothesis

Hypotheses	Variables	P-value	Decision
Hypothesis1	ASI → CCI	0.0360	AcceptH_1
Hypothesis2	ASI → IPO	0.0023	AcceptH_1
Hypothesis3	ASI → DIP	0.8222	RejectH_1
Hypothesis4	ASI→ TURN	0.0212	AcceptH_1

4.5 Discussion of Findings

The Error Correction coefficient (cointEq-1) is estimated at -0.7649; this means that the model corrects its previous periods disequilibrium at a speed of %76.49 estimated annually. Furthermore, the coefficient of determination stood at 0.736721 (73.67) % with adjusted R^2value of 0.658449 (65.84) %, it presumes that the independent variables incorporated into this model have been able to determine the variation of stock market return. The F Probability statistic confirms the significant of this model with a value at (0.000022). Again, the Durbin Watson Statistics clearly revealed that the model is not serially correlated since its value is within the accepted region of acceptance. The result above clearly shows that CCI, IPO and DIPall have a positive relationship with stock market return proxy (ASI). This implies that a unit rise in CCI, IPO and DIP respectively, will lead to an increase instock market return by

3.1221, 0.8511 and 0.8511 respectively. The positive relationship of CCI to ASI is as a result that increase in consumer confidence index, will increase consumer spending and simultaneously increasing firm's profit and stock market returns. Also, positive announcement of consumer confidence index data may have psychological effect on stock prices.

Also, in terms of Initial public offer (IPO), the positive relationship is as a result that the more demand for a stock, the higher it drives the prices and vice versa. So, while in theory, a stock initial public offering (IPO) is at a price equal to the value of its expected future dividend payments, the stock's price fluctuates based on supply and demand. Lastly, on positive relationship between dividend premium (DIP) and stock market returns, this is because investors know that they will receive a dividend if they purchase the stock before the ex-dividend date, they are willing to pay a premium. This causes the price of a stock to increase in the days leading up to the ex-dividend date. The above findings are in tandem with the works of Abdullahi, Oyedeko, Uthman, and Dangana, (2022) and Rupande, Muguto and Muzindutsi (2019) who finds thatthere is a significant connection between investor sentiment and stock return volatility which shows that behavioural finance can significantly explain the behaviour of stock returns on the Johannesburg Stock Exchange. Thus, recommended that due to the inadequacies of popular asset pricing models such as the Capital Asset Pricing Model, consideration should be made towards augmenting these asset pricing models with a sentiment risk factor.

Furthermore, in terms of level of significance, CCI and IPO passed the test of significant with a p-value less than 0.05 level of significant. This indicates that the shares held by investors tend to be exposed to mispricing due to sentiment on the Nigerian exchange group. However, dividend premium (DIP) failed the test of level of significant with p-value less than 0.05 level of significant. Again, the result discloses a negative relationship between turnover rate (TNR) and stock price proxy (ASI). The negative relationships imply that a unit rises in turnover rate (TNR) will lead to decrease in stock price (ASI). However, in terms of level of significance, TNR passed the test of significance. This result is in tandem with works of Ahmed (2018).

5.0 Conclusion and recommendations

5.1 Conclusion

This study examined the impact of investment sentiment on stock market returns in Nigeria during the period of 32years spanning from (1990-2022). The study employed secondary data obtained from the CBN Statistical Bulletin (various issues), and the Nigeria Exchange Group Publications. Data for this study are annual time series data ranging from 1990 through 2022. This study employed four sentimental proxies. The ordinary least square regression (OLS), error-correction models (ECM), unit root and co-integration test were adopted. The findings disclose that CCI, IPO and DIP all have

positive relationship with stock market return proxy (ASI). Meanwhile, DIP appears to be insignificant. Furthermore, turnover ratio exacts a negative but significant effect on stock market return in Nigeria. The present study has shown that investor sentiment has positive effect on the aggregate stock market returns in Nigeria. This implies that asset pricing can be influenced by changes in investor sentiments in Nigeria. The influence of sentiment on stock returns still holds even after the inclusion of market fundamentals such as turnover ratio, and dividend premium. The study thus concludes that there is a possible dynamic relationship between the investor sentiment and the behavior of stock returns in Nigeria such that higher sentiment concurrently leads to higher stock prices. In the Nigerian stock market, sentiment is a source of market risk, which cannot be diversified away and hence it is priced.

In conclusion, behavioral finance is applicable to the Nigerian Exchange Group with evidence showing that stock market in Nigeria is not always efficient due to investors' sentiment and investors are not always rational; hence stock return on the NGX is shaped by direct and indirect sentiment indicators.

5.2 Recommendations

However, according to the findings of this study, it is recommended that investors' sentiment can have either a positive or negative impact on the growth and progress of the Nigeria exchange group. Also, stockholders should not ignore the significance of fundamental and technical analyses in their investment decision making and in predicting stock prices in developing economy like Nigeria where market integrity is low. Also, it is suggested that behavioral factors be considered in empirical asset pricing models for emerging stock markets.

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