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SYSTEMATIC RISK FACTORS, INVESTOR SENTIMENT AND STOCK MARKET PERFORMANCE IN KENYA

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Abstract: **The capital market plays a crucial role in the social economic system of a country by providing the necessary revenue required by the public and private sectors. The other important role is maintaining equilibrium in the general financial system by promoting a savings culture thus reducing unemployment and provides alternative sources of capital to reduce reliance on banks for loans. The year ended 2016 was not very good for the Kenyan stock market which was dubbed the worst performing market globally topping Nigeria stock exchange which closed 2015 as the worst performing stock market with investors boycotting the bourse altogether. The last quarter of 2017 saw the equity markets performance of NSE decline further compared to a similar period in 2017 with equity turnover decreasing to KSHS.25.39 billion in 2016 compared to KSH 46.10 billion in 2016.Market capitalization declined by 4.46% to KES 1,961.92 billion in Quarter 4.2016. The study will examine the effect of systematic risk and investor sentiment on share performance of listed firms in NSE Kenya. The study will examine the effect of exchange rate, inflation rate, money supply and investor sentiment on share performance. The moderating role of GDP on the relationship between systematic risk and investor sentiment on share performance will also be evaluated. The target population will be the 67 listed firms in NSE Kenya as at 2017.**

Keywords: **Systematic risk factors, Investor sentiment, performance, Nairobi Securities Exchange.**

1. INTRODUCTION

Background to the study:

The capital market plays a crucial role in the social economic system of a country by providing the necessary revenue required by the public and private sectors. The other important role is maintaining equilibrium in the general financial system by promoting a savings culture thus reducing unemployment and provides alternative sources of capital to reduce reliance on banks for loans (CMA, Quarterly Statistical Bulletin (QSB), 2016).A combination of the financial and banking sectors perform the role of measures of how a nation is growing vis a vis development. Increase in capital market stability leads to the nation's economic growth. Efficiency, liquidity and fair transactions in a capital market attract foreign investors in form of foreign direct investments and facilitate domestic mobilization and allocation of funds in the economy (CMA, Quarterly Statistical Bulletin (QSB), 2016).

For the year ended 2016 was not very good for the Kenyan stock market which was dubbed the worst performing market globally topping Nigeria stock exchange which closed 2015 as the worst performing stock market with investors boycotting the bourse altogether. The last quarter of 2017 saw the equity markets performance of NSE decline further compared to a similar period in 2017 with equity turnover decreasing to KSHS.25.39 billion in 2016 compared to KSH 46.10 billion in 2016.Market capitalization declined by 4.46% to KES 1,961.92 billion in Quarter 4.2016 (CMA, Quarterly Statistical Bulletin (QSB), 2016).

The NSE 20 share index closed the second trading week of 2017 at 2971.10, the lowest performance that has occurred since 2009(CMA, 2017). Analysts from Bloomberg indicate that since the start of 2017 the NSE has experienced a drop of 6.9% extending the previous year's 8.5% decline. The poor performance of the NSE has trickled down to other stock exchanges in East Africa with cross listed companies reporting decline in share prices especially for banks (CMA 2017, Kamau, 2017,).

The year 2017 was characterized by a bear run extending from 2016 coupled with drought and volatile election in August which prompted investors to take a laid back approach investing in the NSE. Pension funds among other domestic investors were forced to invest their funds in bonds and commercial paper which were viewed as safe havens while foreign investors pulled out of the market waiting for the market to stabilize. Pension funds were the most affected by the stock market volatility having lost value on the shares held (CMA, 2017).

As of Monday, 4th, September 2017 NSE index dropped further with investors loosing ksh.38 billion due to aftershock of the nullification of the presidential elections the week before. Market capitalization erosion valued at Ksh.130 billion was experienced in two trading sessions with the bourse loosing Sh.92 billion on the election nullification day due to the destabilizing news with market capitalization settling at Sh2.349 trillion, down from Sh2.479 trillion the previous week. On the same week, foreign investors sold shares held with most listed blue chip companies such as safaricom, equity bank and Bamburi. Foreign investors accounted for 74% of the market activity (CMA 2017, Muchira, 2017)

The effect of systematic risk on the stock market is a very controversial subject due divergence in findings, methodologies and variables used (mumo, 2016).In Kenya, studies have focused on inflation rates, exchange rates, interest rates and money supply with conflicting findings on the relationship between the selected risk factors and share performance (Ouma & Muriu, 2014).The relationship between selected risk factors and stock prices was investigated using Johansen Cointegration methodology and VECM for the period 1988-2015.The findings conclude that interests rates and exchange rates positively and significantly influence stock prices. Money supply negatively and insignificantly affects stock prices.(Ouma & Muriu, 2014).

However not all changes in security prices can be explained fundamentally. Dramatic events such as the Dotcom bubble of 1990s and Black Monday crash have defied explanation. This has created difficulties for the standard finance model to fit since it assumes that the investor is rational which not the case for these events is. This is where behavioral economists come in to augment the standard model with an alternative model (Baker & Wurgler, 2007).

The alternative models are based on the assumptions that investors are prone to sentiment. Sentiment refers to the beliefs about future flows of cash and risks in investments that are not supported by facts at the investors disposal.(Delong, Shleifer, Summers, &Waldmann ,1990).

It is very expensive and tricky to bet against sentimental investors. This means that rational investors cannot aggressively force prices to fundamentals as suggested by the standard model. This limits arbitrage. Occurrences in the stock market history have supported the behavioral theorists. Cases in point include the Nasdaq and Telkom crashes in 1990s where investor sentiment drove prices of difficult to value and speculative stocks to unthinkable levels forcing arbitrageurs out of the market due to rising prices till the markets crashed.(Baker & Wurgler, 2007).

Stock market performance:

Studies on systematic risk, investors sentiment and share performances have yielded controversial mixed and at times in conclusive findings both domestically and abroad. Theoretically the number of systematic variables influencing share performance and their direction has also been equally diverse (Akbar, Ali, & Khan, 2012& Mumo, 2017).According to Mgammal (2012) the effect of exchange rates on stock prices is positive in the short run for UAE and has no effect in Saudi Arabian stock prices. The effect of exchange rates is found to be negative in the longrun.This is in agreement with Robert (2008) who concluded that exchange rates had no effect on stock prices of the BRICS and Abugri (2008) who discovered that exchange rates negatively affect stock prices.

However, Sohail and Hussein (2009) disagree with their findings by reporting that exchange rates positively influence stock prices in Pakistan stock exchange. This indicates mixed results as no consensus has been reached on how exchange rates influence share performances.

The relationship between inflation and share performances has fascinated May researchers. Sohail and Husain (2009) found that inflation negatively influenced stock prices. This was supported by Songole (2012), Akbar, Ali, & Khan (2012), Narayan & Narayan (2012).However, Elly & Oriwo (2013) found that inflation positively influenced stock prices in Kenya.

Mutuku & Ng'eny(2014) also found significant relationship between inflation and stock performance though they do not provide the direction of the relatioship.Similar findings are reported by Jamaludin, Ismail, & Manaf (2017) and (Mumo, 2017).

Some events in stock markets have defied any rational explanation prompting researchers to evaluate the role of behavioral finance in explaining share performance (Baker & Wurgler, 2007). Anusakumar, Ali, & Wooi (2017) investigated the effect of investor sentiment on stock returns from emerging stock markets and concluded that investor sentiment positively influenced stock returns. The findings are in agreement with Ahmed & Ullah (2013) in Pakistan. Similar studies in Korean stock exchange by Kim & Park (2015) reported that investor sentiment negatively affected stock returns. The findings are supported by Yoshinaga & Junior (2012) in Brazil.

The above studies have indicated that there is no consensus on the number nor direction of systematic risk factors that influence share prices (Mumo, 2017; Akbar, Ali, & Khan, 2012; Anusakumar, Ali, & Wooi, 2017)).The aspect of investor sentiment especially in the Kenyan market has also no received enough coverage in Kenya despite its significant role in other stock exchanges (Kim & Park ,2015; Yoshinaga & Junior,2012; Anusakumar, Ali, & Wooi, 2017).

Systematic risk factors

In finance theory, the probability or uncertainty of the actual return deviating from the expected return is called risk (Valipour, Amin, Kargosha, & Akbarpour, 2015). Risk is divided into two categories; the systematic or non-diversifiable and unsystematic risk or diversifiable risk. The systematic risk is inherent in the market hence the name market risk. Returns on a risky asset are dependent on the systematic risk which must be identified first in the investment decision making process. Systematic risk factors vary from one market to another (Kazi, 2008).

Asset pricing theories do not specify the systematic risk factors that underlie security price changes. Empirical analysis depends on software access and data availability generally. Selection of variables is financial theory based and investor intuition based. One of the core theories is arbitrage pricing theory. (Chen et al., 1986). Financial markets liberalization exposes stock markets to various risks liberation in recent years (Kasman et al., 2011).Monetization development of the economy which differs from country to country also poses new risks. Measurement of money supply is quantified as M1,M2 and M3.The value of M1, M2 and M3 which is published in the central bank financial reports are referred to as anticipated money supply(Barro, 1978 and 1977).

When aggregate demand changes the general price level of the nation will also change. This can lead to inflation or deflation. Changes in the general price level can change purchasing power and indirectly the profitability of firms. This can lead to changes in stock returns. Therefore, unanticipated money supply, interest rate, exchange rate and inflation can influence stock returns directly or indirectly.(Fahmi, Geetha, & Mohidin, 2017).

Baker and Stein (2004) define investor sentiment as investors' misevaluation on an asset. All in all investor sentiment is the difference between the actual and theoretical price of a security. Two groups of investors exist in a market, where one holds rational expectations on an asset's value and the other makes biased valuations. In this case, it is equivalent to saying that investor sentiment reflects the valuation difference between the two groups of investors (, Baker and Stein 2004).

Baker and Stein (2004) and Brown and Cliff (2005) assume that there are two such types of investors and find that expected stock returns will diminish if the beginning investor sentiment is high. Brown and Cliff (2005) claim that sentiment could be a very persistent effect so, the demand shocks of irrational traders could be correlated over time leading to a strong and persistent mispricing.

In measuring investor sentiment, existing literature offers a few methods. Baker and Wurgler (2005) used market proxies for matters such as first-day returns of initial public offerings of companies as indications of investor sentiment. They have combined six of these proxies to develop a sentiment index, and have shown that this index has clearly discernable effects on the stock markets. These proxies are: trading volume as measured by NYSE turnover, dividend premium, the closed end fund discount, the number and first-day returns on initial public offerings (IPOs) and the equity share in new issues. (Baker & Wurgler, 2005).

Stock Market in Kenya:

NSE was formed in 1954 and is the only stock exchange in Kenya. The firms listed can be categorized as financial and nonfinancial firms. The financial sector comprises of insurance companies and banks while the non-financial companies fall under the manufacturing and allied, telecommunication and technology, investment, energy and petroleum, construction and allied, Growth enterprise market, commercial services and agricultural (NSE, 2017)

The key indices in the NSE include the NSE 20 share comprising of blue chip companies and NASI all share index for all companies listed in the exchange. Other related indices include, FTSE index, AIG 27 Share index, NSE 25 index and SIFTE. The major index is the NSE 20 share index for the blue chip companies in the exchange selected based on weighed market turnover, capitalization, number of deals and shares traded (NSE, 2017).

Statement of the problem:

The leading equities market indicators Kenya - equity turnover, volume of shares traded, NSE 20 Share Index, Nairobi All Share Index and Market Capitalization, closed lower in 2016 compared to 2015. In September 2017, Nairobi Securities Exchange (NSE) was Africa's worst performing major stock exchange, according to data compiled by London based economic research consultancy *Capital Economics*. This followed the fall in the month, of the country's benchmark NSE 20 Share index, which is one of Africa's most widely-traded (CMA, 2016). The index had dropped by 8.7% in local currency terms. (CMA, 2017).Despite market activity having resumed, most listed companies at the NSE have not experienced major gains in price and trades during the period (CMA, 2017).

According to Mgammal (2012) the effect of exchange rates on stock prices is positive in the short run for UAE and has no effect in Saudi Arabian stock prices. The effect of exchange rates is found to be negative in the long run. Abugri (2008) discovered that exchange rates negatively affect stock prices. These studies do not provide a clear direction on the effect of systematic risk on stock performance. Sohail and Husain (2009) found that inflation negatively influenced stock prices. This was supported by Songole (2012), Akbar, Ali, & Khan (2012), Narayan & Narayan(2012). However, Elly & Oriwo (2013) found that inflation positively influenced stock prices in Kenya. This indicates lack of consensus in literature creating a gap that needs filling.

According to Anusakumar, Ali, & Wooi (2017) investor sentiment positively influences stock returns. This is in agreement with Ahmed & Ullah (2013) in Pakistan. Other studies in Korean stock exchange by Kim & Park (2015) reported that investor sentiment negatively affected stock returns. The findings are supported by Yoshinaga & Junior (2012) in Brazil.

The above studies have indicated that there is no consensus on the number nor direction of systematic risk factors that influence share prices (Mumo, 2017; Akbar, Ali, & Khan, 2012; Anusakumar, Ali, & Wooi, 2017)).The aspect of investor sentiment especially in the Kenyan market has also no received enough coverage in Kenya .The study will examine the effect of systematic risk and investor sentiment on share performance of listed firms in NSE kenya.

Objectives of the study:

The study will be guided by the following objectives

General objective:

To determine the effect of systematic risk factors on share performance of firms listed in Nairobi securities exchange, Kenya.

Specific objectives:

i) To establish the effect of inflation rate risk on share performance of firms listed in Nairobi securities exchange, Kenya.

ii) To determine the effects of exchange rate risk on share performance of firms listed in Nairobi securities exchange, Kenya.

iii) To establish the effects of interest rate risk on share performance of firms listed in Nairobi securities exchange, Kenya

iv) To establish the influence of investor sentiment risk on share performance of firms listed in Nairobi securities exchange, Kenya

v) To determine the moderating effect of GDP growth rate on the relationship between systematic risk factors and share performance of firms listed in Nairobi securities exchange, Kenya.

Hypotheses:

The following null hypothesis will guide the study.

H_{01} There is no effect between inflation rate risk and share performance of firms listed in Nairobi securities exchange, Kenya.

H_{02} There is no effect between exchange rate risk and share performance of firms listed in Nairobi securities exchange, Kenya.

H_{03} There is no effect between interest rate risk and share performance of firms listed in Nairobi securities exchange, Kenya.

H_{04} There is no effect between investor sentiment risk and share performance of firms listed in Nairobi securities exchange, Kenya.

H_{05} GDP growth rate does not moderate the relationship between systematic risk factors, and share performance of firms listed in Nairobi securities exchange, Kenya.

Significance of the study:

The findings of this study are of particular importance to various securities market stake holders, among them being corporate investors, individual investors and government policy makers. The first beneficiaries of this study are the corporate and individual stock market investors as they can be able to use the findings of this study in making investment decisions and strategies.

The government and the corporate world policy makers can be able to borrow from this study in coming up with macroeconomic policies that will enhance economic growth and stability. To the scholars the study provides areas for further research which can be used to add value in this area of study and forms part of the literature review on this area.

This study will help both practitioners and academicians in the sense that investors are not rational and sentiments dictate their investment decisions. The study proves that investor sentiments have a positive significant coefficient when it comes to explaining market returns. We believe that psychological factors that are rarely studied do have an important bearing on investor's decision making and consequently market returns of Pakistan in particular and world at large.

Scope of the study:

The scope of this study is to determine the effect of systematic risk factors and investor sentiment on share performance of firms listed in Nairobi securities exchange, Kenya. Specifically, it aims at establishing the relationship between systematic risk factors of inflation rate, exchange rate, money supply and investor sentiment on share Performance of firms listed in Nairobi securities exchange Kenya. Secondary sources of data will be used and data collected for the period between 2008 and 2017 and this time scope is considered appropriate for the study as it covered the period after the Nairobi All share Index was started as a measure of performance of all listed firms in the Nairobi securities Exchange. The study only included companies that have been active at the NSE over the whole study period.

Limitations of the study:

It is possible that there are more systematic risk factors affecting share performance of firms listed in Nairobi securities exchange. Furthermore other factors like firm size, liquidity, management styles, profitability etc may also affect the share Performance of a firm. However this study was limited to the three systematic risk factors, that is, exchange rate, oil prices, money supply and investor sentiment.

The study was conducted in the year covering 2008-2017 covering all the listed firms at the Nairobi Securities Exchange. The study will conduct a census to make the results more representative and theory will be used to select the most significant country specific systematic risk factors to be used in the study

Theoretical Literature:

This study is guided these theories: The capital asset pricing model (CAPM), the arbitrage pricing theory (APT), the efficient market hypothesis

Efficient Market Hypothesis (EMH):

The basic idea underlying the EMH developed by Fama (1965, 1970) is that asset prices promptly reflect all available information such that abnormal profits cannot be produced regardless of the investment strategies utilized. Fama (1970) distinguished between three forms of market efficiency based upon the level of information used by the market: weak form, semi-strong, and strong form market efficiency. The weak form of the EMH stresses that asset prices today incorporate all relevant past information, i.e., past asset prices, security dividends, and trading volume. Knowing the past behavior of stock prices provides no indication of future stock prices (Fama, 1970).

From an economic standpoint, an efficient stock market will assist with the efficient allocation of economic resources. For instance, if the shares of a financially poor company are not priced correctly, new savings will not be used within the financially poor sector. In the world of the EMH, the level of asset price fluctuations, or volatility, fairly reflects underlying economic fundamentals. Along these lines, Levich (2001) argues that policymaker‘s interventions may disrupt the market, and cause it to be inefficient.

Capital Asset Pricing Model (CAPM):

Capital Asset Pricing Model (CAPM) was a basic technique used to determine risk and return related to a particular security. The single factor model was developed by Sharpe (1963). This was the main characteristic as well as the primary shortcoming of this model that it was using only the market performance as a single factor to determine security performance. This problem had led to alternative model to explain the stock Performance variation called the Arbitrage Pricing Theory (APT). The Arbitrage Pricing Theory was emerged as an alternative to CAPM. APT is based on fewer assumptions about the stock market characteristics as compared to CAPM (Sharpe, 1963).

Capital Asset Pricing Model (CAPM) was developed by Sharpe (1964), Treynor (1961), Lintner (1965) and Mossin (1966). It is an equilibrium model that gives the equilibrium relationship between risk and return under certain assumptions. Assuming investors hold the efficient market portfolio, CAPM states that the market portfolio risk is the only systematic risk that should be rewarded in the stock’s expected return. Hence, investors would be compensated only for the market risk, and any unsystematic risk that is specific to individual stock should be cancelled out through diversification.

Arbitrage Price Theory (APT):

The Arbitrage Pricing Theory, introduced by Ross (1976), establishes the theoretical framework to link stock returns with several variables which can influence the source of income volatility (Rahman, et al. 2009). Mukherjee and Naka (1995) showed that economic variables influence stock market returns through their effects on future dividends and discount rates. Macroeconomic variables selected to examine the determinants of stock market tend to differ slightly across studies most common variables are the rate of inflation, money growth, interest rates, industrial production and exchange rates for explaining the stock market movement.

The theory of asset pricing, in general, demonstrates how assets are priced given the associated risks. The Arbitrage Price Theory (APT) suggested by Ross (1976) has been an influential form of asset price theory. APT is a general form of Sharpe‘s (1964) capital asset price model (CAPM). While the CAPM suggests that asset prices or expected Performance are driven by a single common factor, the APT advocates that they are driven by multiple macroeconomic factors Ross (1976).

2. EMPIRICAL LITERATURE

Inflation rate and share performance:

Inflation has been linked to stock prices. This study examined the effect of inflation on stock prices at the Nairobi Securities Exchange. Prior studies on this particular topic yielded negative correlation between the key stock exchange performance indicators and the rate of inflation. The objective of this study was to examine the effect of the inflation rate on the performance of the Kenyan Stock Market. Particular attention was paid to the effects of inflation on various stock market performance indicators, in terms of market activity and liquidity. However other studies from 1998-2013 have reported positive correlation between the NSE index and inflation while using correlation and regression model (Vena, 2012).

Time series analysis of stock prices in South Africa was done using the data covering the period 1980Q1 to 2010Q4 to test the effect of inflation on stock prices. The analysis is done using Auto-Regressive Distributed Lag Model (ARDL). First, we investigate time series properties of data. The unit root test results reveal stock prices, interest rate, economic growth and real effective exchange rate are integrated of order zero ~I(0), while the growth of money supply and inflation are ~I(1) (Khumalo, 2013).

Causality test suggests a unidirectional causation from inflation to stock prices. The establishment of the long run relationship leads us to performing VECM to establish short-run and long-run dynamics. Our results indicate that inflation exerts a significant and negative impact on stock prices in South Africa (Khumalo, 2013).

The relationship between stock indices and inflation rate can be long run or short run. The objective of this research study is to investigate a long run relationship between KSE 100 index return and inflation rate in Pakistani economy. The evidence from Cointegration test shows a negative relationship between KSE 100 index return and inflation rate because Pakistan is an under develop country when inflation occur it badly affect the economy which will ultimately affect the stock return and the reasons are economic condition and budget deficit along with some other factors and the Granger causality tests shows that there is no causality between KSE 100 index return and inflation rate in any direction.(Saleem, Zafar, & Rafique, 2013).

OLS was used to estimate the impact of macroeconomic variables on stock returns in Kenya between 2003-2013.The findings indicate that Money supply positively and exchange rate negatively affect stock returns while interest rate has no effect in the long run on the NSE returns.(Ouma & Muriu, 2014).

This study examined the impact of inflation rate on stock returns in the Nigerian Stock Market. It also attempted to determine whether inflation rate had any effect on stock returns in Nigerian stock market and to ascertain whether stock prices effectively predict stock returns in the Nigerian stock market, using monthly data covering the period 1995 to 2010. The result indicates that the inflation rate has a negative but weak impact on stock return; hence, inflation is not a strong predictor of stock returns in Nigeria. Inflation variable appears to significantly respond to stock price changes.(Uwubanmwen & Eghosa, 2015). Many previous studies around the globe examine the relationship between stock price and inflation and proposed different results, many of them found that there is positive link between inflation and stock price. On the other hand some studies realized the negative relationship between these two terms. This research is based on past ten years data of Karachi stock exchange (KSE 100) and the statistical results of this research shows that there is negative relationship between stock price and inflation.(Qamri, Haq, & Akram, 2015).

Exchange rate and share performance:

The effects of exchange rate and interest rate on the Nigerian Stock Market using the All-share index as a proxy for the market were examined. The monthly closing returns of All-share index, exchange rates and interest rates. Result revealed a significant relationship with the exchange rate but a negative one. Implication of this is that an increase in exchange rate reduces stock market returns thereby dampening the market activity. The interest rate also showed a negative relationship but insignificant at the chosen 5% level of significance (Okoli, 2012).

Fredrick, Raymond, & Kipyego (2014) examined the interaction between stock prices and exchange rates in Kenya with regards to the period from January 1st 2012 to December 31st 2013. The findings have implications for investors, investment managers, regulators, listed companies, financial institutions and other market players. The economic theory points to the relationship between stock price and exchange rates but does not properly define the direction of the relationship. This research used the Pearson product-moment correlation coefficient method to find out the degree of correlation between stock prices and exchange rates. The study reported positive relationship between exchange rates and share price.(Fredrick, Raymond, & Kipyego, 2014)

Jawaid & Haq (2014) investigated the effects of exchange rate, interest rates, and their volatilities on stock prices of banking industry of Pakistan. Cointegration results suggest the existence of significant negative long run relationship between exchange rate and short term interest rate with stock prices. On the other hand, positive and significant relationship exists between volatilities of exchange rate and interest rate with stock prices (Jawaid & Haq, 2014).

Causality analysis confirms bidirectional causality between exchange rate and stock prices. Whereas, unidirectional causality runs from short term interest rate to stock prices. Sensitivity analysis confirms that the results are robust. The result also supports the view that exchange rate and interest rate can be used as an indicator for investment decision making in banking sector stocks (Jawaid & Haq, 2014).

This the impact of exchange rate volatility on share price fluctuations in Nigeria was examined by applying a GARCH (1,1) model and the granger causality test ;the results showed that whereas exchange rate expectation has positive impact on stock returns the impact of exchange rate volatility was statistically not significant. However, exchange rate volatility impacts negatively on share price fluctuations. Also, there exists a unidirectional causality running from share prices to exchange rate. The study therefore conclude that although exchange rate expectations help to predict returns on share prices exchange rate volatility had a negative impact on share price fluctuations in Nigeria.(Oyinpreye & Moses, 2015)

The link between macroeconomic variables and stock market performance was investigated. The model used by Sangmi and Mubasher (2013) was adopted and modified to determine the effect of macroeconomic variables on stock market

capitalization. It was discovered that depreciation in exchange rate in dollars and reduction in consumer price index affects stock market development negatively, while increase in money supply does influence stock market positively.(Ernest, David, & Kofi, 2016).

Moraa (2017) investigated the effect of real exchange rate on the Nairobi Securities Exchange. The study focused on the NSE index and the Kenya shillings/United States Dollar real exchange rate. The study applied simple regression. Findings indicate that real exchange rate is significant and positively correlates with the Nairobi Securities Exchange index. In addition, the rate of inflation was also found to be significant but with a negative sign

Interest rate risk and stock market performance:

Vector Error Correction model (VECM) was employed to investigate the interrelationship between stock prices and monetary indicators for Jamaica. The Johansen cointegration test was used to determine the existence of a long term relationships between stock prices and monetary variables such as money supply, interest rate, inflation rate and the exchange rate. The variables were found to be co-integrated with significant relationships in line with a priori expectations. Coefficients from the co-integrating vector, normalized on the stock price, suggest that the JSE Main Index is positively influenced by the inflation rate and M3 and negatively by the exchange rate, interest rate and M2. Furthermore, the Granger-causality tests show that only M2 is a predictor of stock prices (Raymond, 2009).

An examination of selected macroeconomic factors In Taiwan and index returns causal relationship indicated that money supply, exchange rate and inflation rate negatively influence stock returns of portfolio of big and medium companies. Exchange rate and GDP also affect all returns (Singh, Mehta, & Varsha, 2011).

The relationship between Karachi stock market 100 index and macroeconomic variables, i.e., inflation, industrial production, money supply, exchange rate and interest rate was investigated. The long term relationship between macroeconomic variables and stock market returns has been analyzed by using Johnson Cointegration test, Augmented Dicky Fuller (ADF) and Phillip Perron (PP) tests. The consumer price index, money supply, exchange rates and interest rates proved to be negatively associated with the stock returns, while industrial production index was found to be positively associated with the stock returns. All the variables were significantly associated to stock market returns except inflation (Alam & Rashid, 2014).

The influence of macroeconomic environment on the stock market returns at the NSE was examined. The study adopted a correlational research design and targeted all the companies listed and active at the NSE from 2004-2014. Regression model was used to examine the effect of the macroeconomic environment on the stock market returns at the NSE. The study found that Exchange rate had a positive influence, Inflation had a negative influence, Interest rate had a positive and Money supply had a positive influence on the stock market returns in Agricultural Sector (Gatuhi, Gekara, & Muturi, 2015).

The effects of inflation on aggregate stock prices in Nigeria were empirically investigated Employing Vector Error Correction Model (VECM) setting. The empirical results shows that there exist a long run equilibrium negative and significantly relationship between inflation rate and aggregate stock prices, Broad money supply (M2) has a negative and significantly effects on aggregates stock prices, Narrow Money Supply (M1) shows a positive and significantly effects on aggregates stock prices while Average inflation rate show a positive and significantly relationship between aggregate stock prices(Akani & Uzobor, 2015).

The determinants of stock trading volume in Nigeria were investigated. In order to establish the magnitude and direction of relationship between stock trading volume and other macroeconomic variables such as broad money, interest rate, foreign direct investment, exchange rate, income and global financial crisis for the period 1985 to 2014, an ARDL model was set up. The results showed that the exogenous variables studied have long run equilibrium relationship with the volume of transactions in the stock exchange. Specifically, while money supply exhibited strong positive significant relationship with stock volume, interest rate and exchange rate impact was negative and significant(Muibi, Osi, Evans, & Seun, 2016).

Investor sentiment and share performance:

The relationship between market sentiment and future stock rates of return was analyzed using a methodology based on principal component analysis to create a sentiment index for the Brazilian market with data from 1999 to 2008. Next, we calculated the average return of each portfolio for every quarter. The data for the first and last quintiles were analyzed via

two-factor ANOVA, using sentiment index of the previous period (positive or negative) as the main factor and each characteristic as controlling factors. Finally, the sentiment index was included in a panel data pricing model. The results indicate a significant and negative relationship between the market sentiment index and the future rates of return (YoshinagaI & Junior, 2012).

The impact of investor's sentiments on return of Karachi Stock Exchange (KSE) was investigated. If the results are found to have an impact on returns of KSE, this will mark a new research area in the field to explain variation in returns based on behavioral factors. Time series analysis of auto regressive distributive lag (ARDL) is used in this study. The results indicate that our variables are co integrated in the long run. Investor sentiments were proven to have positive and significant coefficient that indicates its impact on KSE returns. Further, the macroeconomic variable of inflation was also statistically significant (Ahmed & Ullah, 2013).

Evaluation of the effects of investor sentiment on the conditional volatility by measuring the effects of noise trader demand shocks on returns and volatility where EGARCH model is used to determine whether investor sentiment has more influence on the conditional volatility of various sector indexes. After controlling for macroeconomic shocks, weekly trading volume of Istanbul Stock Exchange 100 is used as investor sentiment proxy. Significant evidence is found that a change in investor sentiment has more influence on conditional volatility of industry, banking, and food and beverages sector indexes when compared with other sectors such as retail or telecommunication (Uygur & Tas, 2014).

A proxy variable was constructed to examine the relationship between investor sentiment and the return of a specific industry, using the Principle Component Analysis, and finds that investor sentiment is positively correlated with the industry return of the current period and negatively correlated with that of one lag period; we classify investor sentiment as optimistic state and pessimistic state and find that optimistic investor sentiment has a positive effect on stock returns of most industries, while pessimistic investor sentiment has no effect on them.

The dynamic relationship between individual investor sentiment and stock returns in the Korean stock market was investigated. The evidence indicates that individual investor sentiment has no significant explanatory power for cross-sectional stock returns. However, individual investors' trades can move stock prices in certain stocks by their contrarian behavior, which leads them to implicitly provide liquidity to other market participants. In addition, individual investors earn a small market-adjusted excess return in the short-horizon future as compensation for liquidity provision. Our findings show that short-horizon return predictability of individual investors does not come from their private information (Kim & Park, 2015).

Gizelis, Demetrios, Chowdhury, & Shah (2016) examined the relationship between investor sentiment and stock market returns of firms listed in the Athens Stock Exchange by employing two investor sentiment proxies, a direct and an indirect. As the direct measurement of sentiment we use the historical investor sentiment indicators compiled by the European Commission, and for the indirect one we resort to the closed - end equity fund discount/premium. Using monthly data for the period January 199 5 to April 2014 the regression results indicate that investor sentiment weakly explains returns (Gizelis, Demetrios, Chowdhury, & Shah, 2016).

Anusakumar, Ali, & Wooi (2017) investigated the link between investor sentiment and stock returns in emerging Asian markets. Two dimensions of sentiment are examined: stock specific sentiment and market wide sentiment. Using panel regression with firm fixed effects, they show that stock specific sentiment strongly and positively affects stock returns after controlling for firm characteristics. Overall, there is a positive relationship between market wide sentiment and returns but the relationship does not hold at the country level. For individual countries, they detect substantial country-to-country variations in the influence of market wide sentiment on returns. The evidence also suggests that stock specific sentiment may have a greater influence on returns than market specific sentiment (Anusakumar, Ali, & Wooi, 2017).

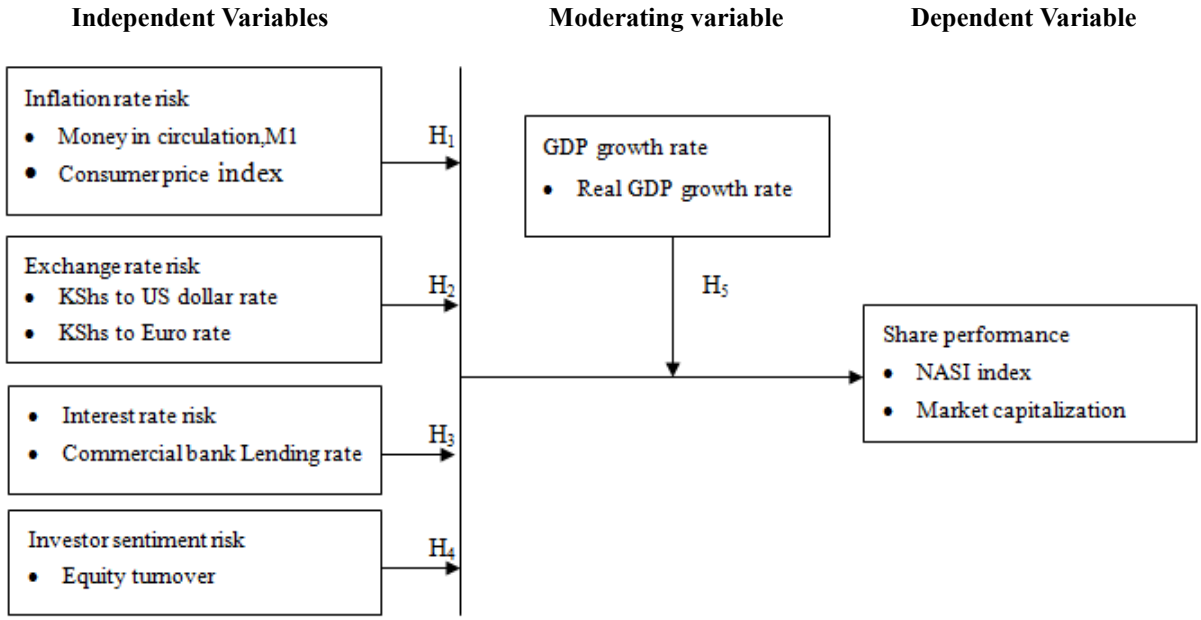
Systematic risk factors, GDP growth rate and stock market performance:

In Taiwan, an examination of selected macroeconomic factors and index returns causal relationship indicated that money supply, exchange rate and inflation rate negatively influence stock returns of portfolio of big and medium companies. Exchange rate and GDP also affect all returns (Singh, Mehta, & Varsha, 2011).

The influence of five macroeconomic variables and Exchange rate at KSE 100 index of Pakistan was observed. The consequences of Granger Causality test shows that the GDP savings and Exchange rate does unidirectional Granger Cause Money supply. On other side GDP savings also unidirectional Granger Cause the KSE. The results of Regression Analysis show that the Inflation, Exchange rate, Money supply, GDP per capita and GDP savings has positive significant impact on KSE 100 index(Kibria, Kamran, Arshad, Perveen, & Sajid, 2014).

Jahfer & Inoue (2017) investigated the long-term relationship between macro-economic factors and stock market performance in the Sri Lankan market. The stationary of the data is tested using Augmented Dickey Fuller (ADF) test. It was found that all variables are stationary on first differencing. The relationships between macro-economic factors and indicators of stock market performance are investigated using Johansen co-integration tests, and OLS. Co-integration results indicate the existence of long-run relationship between macro-economic factors and stock market performance indicators. Further analyses show that money supply and inflation are positively related with stock market performances but exchange rate, GDP and Treasury bill rate are negatively related to the stock market performances (Jahfer & Inoue, 2017).

Conceptual framework:



Source; Researcher, 2018

3. SUMMARY, FINDINGS AND CONCLUSION

The above studies have established the link between systematic risk factors and stock performance. However, the theories evaluated do not specify the number of systematic factors that influence stock market performance. Different theories have also given contrasting directions of the various effects of systematic risk factors on stock market performance. Behavioral finance theories have also shown that investor sentiment increases stock market performance negatively or positively.

The empirical literature has also been inconclusive and mixed at time with variations in the number of factors used; the findings have also been equally diverse for both developed and developing markets. The Kenyan stock market has also exhibited mixed findings (mumo, 2016;Elly&Oriwo,2013).The aspect of investor sentiment has also not been well researched.The study will evaluate the effect of systematic risk factors,investor sentiment and stock market performance in kenya.The moderating role of GDP will also be investigated.

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