Share Prices Determinants in the Nigerian Stock Exchange

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Abstract: The study empirically examined the determinants of share price in the Nigerian Stock Market from 1980 to 2000. Data from fifteen quoted companies were used. The study adopted ordinary least square method i.e multiple regression to analyse and interpret the data that were mainly sourced from the Nigerian Stock Exchange. The model used expressed the share price as a function of some identified determinant established by theories and literature. These determinants are earning per share, dividend per share, money supply, oil price, the gross domestic product, consumer price index and interest rate. After the analysis it appears that all these variables are true determinants of the share price in Nigerian Stock market going by the significance of the model at both 5% and 10% levels of significance and the robustness of the R square which stood at about 0.93. This simply shows that these identified determinants have been able to explain about 93% variation in the share price of the companies. However based on the revelations concerning the relationship of the share price and each of this variables it appears the that earning per share, dividend per share, money supply, oil price and consumer price index all exhibited positive relationship with the share price while interest rate and GDP exhibited negative relationship.
Keywords: Share Prices, Stock Market, Determinants.

BACKGROUND TO THE STUDY

The stock market has become an essential market playing a vital role in economic prosperity that fostering capital formation and sustaining economic growth. Stock markets are more than a place to trade securities; they operate as a facilitator between savers and users of capital by means of pooling of funds, sharing risk, and transferring wealth. Stock markets are essential for economic growth as they ensure the flow of resources to the most productive investment opportunities. Stock prices change in stock markets daily. Moreover, during certain times of the year, it is easy to notice that stock prices appreciate every morning, and this may take place many times in one day for some stocks. This means that stock prices are determined by supply and demand forces.

According to Ackert [1], identifying the major determinants of stock prices in the capital market has been described as a way of appraising the efficiency of the stock market. He maintained that there is no foolproof system that indicates the exact movement of stock prices. However, the factors behind increases or decreases in the demand and/or supply of a particular stock could include company fundamentals and external factors. Company fundamental factors influencing stock prices might include performance of the company, a change in board of directors, appointment of new management, and the creation of new assets, dividends, earnings, etc. External factors might include government rules and regulations, inflation, and other economic conditions, investor behavior, market conditions, money supply, the production of the company, strikes, etc.

However, several researches have been conducted on issues affecting stock prices, while some focused on external factors some concentrated on company fundamentals. Somoye *et al.*, [2], Chaudhri & Smiles [3] among others focused on external factors, while Hartono [4] and Lee [5] among others used the company fundamentals only. Tamimi [6] who used both made the Capital market of the United Ahrab Emirate his case study.

Consequently, to critically assess the determinants of stock prices in Nigerian Capital Market, this research work will make use of both company fundamentals as well as the external factors as the determinants of stock prices in the Nigerian Stock Exchange.

LITERATURE REVIEW

Somoye *et al.*, [2] examined the extent to which some "information factors" or market indices affect the stock price. A model defined by Al-Tamimi

[6] was used to regress the variables (stock prices, earnings per share, gross domestic product, lending interest rate and foreign exchange rate) after testing for multicollinarity among the independent variables. The multicollinarity test revealed very strong correlation between gross domestic product and crude oil price, gross domestic product and foreign exchange rate, lending interest rate and inflation rate. All the variables have positive correlation to stock prices with the exception of l lending interest rate and foreign exchange rate. The outcomes of the study agree with earlier studies by Udegbunam and Eriki [7]; Ibrahim [8] and Chaudhuri and Smiles [3].

Levine and Zervos [9] examines whether there is a strong empirical association between stock market development and long-run economic growth. The study used pooled cross-country time-series regression of forty-one countries from 1976 to 1993 to evaluate this association. The study toe the line of Demirgüç-Kunt and Levine [10] by conglomerating measures such as stock market size, liquidity, and integration with world markets, into index of stock market development. The growth rate of Gross Domestic Product (GDP) per capita was regressed on a variety of variables designed to control for initial conditions, political stability, investment in human capital, and macroeconomic conditions; and then include the conglomerated index of stock market development. The finding was that a strong correlation between overall stock market development and long-run economic growth exist. This means that the result is consistent with the theories that imply a positive relationship between stock market development and economic growth.

Efforts were also made by Nyong [11] to develop an aggregate index of capital market development and use it to determine its relationship with long-run economic growth in Nigeria. The study employed a time series data from 1970 to 1994. For measures of capital market development the ratio of market capitalization to GDP (in percentage), the ratio of total value of transactions on the main stock exchange to GDP (in percentage), the value of equities transaction relative to GDP and listings were used. The four measures were combined into one overall composite index of capital market development using principal component analysis. A measure of financial market depth (which is the ratio of broad money to stock of money to GDP) was also included as control. The result of the study was that capital market development is negatively and significantly correlated with long-run growth in Nigeria. The result also showed that there exists bi-directional causality between capital market development and economic growth.

Hartono [12] examines the effect of a sequence of positive and negative dividend and earning information on stock prices. Data for this study were collected from Center for Research in Security Prices (CRSP) tapes in the US from 1979 to 1993. Results show that the positive recent earning information has significant relation with stock prices when it follows negative dividend information, and the negative recent earning information has significant relation with stock prices when it follows positive dividend information. On the other hand, the recent positive dividend information has significant relation with stock prices when it follows negative earning information while the recent negative dividend information does not have significant relation with stock prices when it follows positive earning. This study shows short-term reaction of stock prices to the earning and dividend information and does not reflect long-run dynamic relation.

Lee [13] employs two types of aggregate index data: annual Dow Jones industrial average (DJIA) index data for the sample period 1920–1999, and annual Standard and Poor's (S&P) 400 industrial index data for the sample period 1946–99. The study finds that investors overreact to nonfundamental information but underreact initially to fundamental information (dividend, book value and earning), with no significant reversal associated with fundamental information in the long run. The study also finds that the residual income model provides a better valuation than the dividend discount model.

Docking and Koch [14] in their study to assess investor reaction to dividend increase or decrease shows that dividend change announcements elicit a greater change in stock price when the nature of the news (good or bad) goes against the grain of the recent market direction during volatile times. First, announcements to raise dividends tend to elicit a greater increase in stock price when market returns have been normal or down and more volatile. However, this tendency lacks statistical significance. Second, announcements to lower dividends elicit a significantly greater decrease in stock price when market returns have been up and more volatile.

Al-Qenae et at., [15] made an important contribution by investigating the effect of earning and other macroeconomic variables on the stock prices of Kuwait Stock Exchange during the period 1981-1997. The macroeconomic variables examined are gross national product (GNP), interest rate, and inflation. The study found a significant and higher sensitivity of the estimated earning response coefficient (ERC) with the leading period returns. Moreover, both inflation and interest rate have negative and statistically significant coefficients in almost all cases on stock prices while GNP has positive effect but it is only significant in a certain (high) return measure interval. This study supports the idea that investors in KSE are able to anticipate earnings and suggests that the KSE market exhibits some features of semi-strong efficiency (i.e., a scenario in which stock prices incorporate all publicly available information).

The empirical study undertaken by Ralph and Eriki [7] on the Nigerian Stock Market examining the relation between stock prices and inflation provides a strong support for the proposition that inflation exerts a significant negative influence on the behavior of the stock prices. Moreover, the study shows that stock prices are also strongly driven by the level of economic activity measured by GDP, interest rate, money stock, and financial deregulation. On the other hand, the findings of the study show that oil price volatility has no significant effect on stock prices.

Zhao [16] studied the relationships among inflation, output (industrial production) and stock prices in the Chinese economy. The study employs monthly values covering the period from January 1993 to March 1998. The results indicate a significant and negative relation between stock prices and inflation. The findings also indicate that output growth negatively and significantly affect stock prices. Dimitrios Tsoukalas [17] examines the relationships between stock prices and macroeconomic factors in the emerging Cypriot equity market. In this study, the author has used the vector autoregressive model (VAR). The macroeconomic factors examined in this study, which covers the period from 1975 to 1998, are exchange rate, industrial production, money supply, and consumer prices. The results of the study indicate a strong relationship between stock prices and those macroeconomic factors. According to the author, the strong relationship between stock prices and exchange rate should not be surprising, since the Cypriot economy depends for most part on services such as tourism and off-shore banking. He also notes that the relationships between stock prices and industrial production, money supply, and consumer prices reflect macroeconomic policies implemented by Cypriot monetary and fiscal authorities.

Ibrahim [18] applies cointegration and VAR modeling to evaluate the long term relationship and dynamic interactions between Malaysian Equity Market, various economic variables, and major equity markets in the United States and Japan. The macroeconomic variables used are real output, aggregate price level, money supply, and exchange rate. The study yielded two main findings: first, the Malaysian stock price index is positively related to money supply, consumer price index, and industrial production. Second, it is negatively linked to the movement of exchange rates.

Mukherjee and Naka [19] investigate the relation between Tokyo stock prices and six macroeconomic variables using a vector error correction model (VECM). Their study covered 240 monthly observations for each variable in the period from January 1971 to December 1990. The results of the study show that the relationship between Tokyo stock prices, the exchange rate, money supply, and industrial production is positive, whereas the relationship between Tokyo stock prices and inflation and interest rates is mixed.

Chaudhuri and Smiles [20] test the long run relationship between stock prices and changes in real macroeconomic activity in the Australian stock market in the period from 1960 to 1998. The real macroeconomic activities include real GDP, real private consumption, real money, and real oil price. The results of their study indicate that longrun relationships between stock prices and real macroeconomic activity. The study also found that foreign stock markets such as the American and New Zealand market significantly affect the Australian stock return movement. In order to test the informational efficiency of the Malaysian stock market,

Ibrahim [21] investigates the dynamic interaction between stock prices and seven macroeconomic variables covering the period from 1977 to 1996. The author used cointegration and the Granger causality test. The macroeconomic variables include the industrial production, consumer prices, M1, M2, credit aggregates, foreign reserves and exchange rates. The results strongly suggest informational inefficiency of the Malaysian market. In other words, there is cointegration between the stock prices and these macroeconomic variables. The study demonstrates that stock price movements anticipate variation in the industrial production, money supply, and the exchange rate while they react to the deviations from long run path of consumer prices, credit aggregates, and foreign reserves.

Maysami and Koh [22] examine the dynamic relations between macroeconomic variables and Singapore stock markets using the vector error correction model. The macroeconomic variables are exchange rate, long and short term interest rates, inflation, money supply, domestic exports, and industrial production. The data were seasonally adjusted and cover the period from 1988 to 1995. The study shows that inflation, money supply growth, change in short and long term interest rates, and variation in exchange rates do form a co-integrating relation with the changes in Singapore's stock market levels. This study also examined the association between the American and Japanese stock markets and the Singapore stock market. Results show that the three markets are highly co-integrated.

METHODOLOGY
Model Specification

The model used in this study is guided by the theoretical framework and the literature review discussed in the previous section with special reference to Tamimi [6] where major determinants of Share Prices were cited as comprising of both company fundamentals and external factors i.e a change in board

of directors, appointment of new management, and the creation of new assets, dividends, earnings), and external factors (government rules and regulations, inflation, and other economic conditions, investor behavior, market conditions, money supply, competition etc.

Consequently our model is specified thus:

$$SP = f(EPS, DPS, OL, GDP, CPI, INT, MS)$$

Where,

SP: Share price; EPS: Earnings per share; DPS: Dividend per share; OL: Oil price; GDP: Gross domestic product; CPI: Consumer price index; INT: Interest rate MS: Money supply
Explicitly the model is written as:

$$Sp = \alpha_0 + \alpha_1 EPS + \alpha_2 DPS + \alpha_3 MS + \alpha_4 OL + \alpha_5 CPI + \alpha_6 GDP + \alpha_7 INT + u_t$$

u_t = Error term

Estimating Technique

A single model will be employed to analyse the Determinants of share Prices in the Nigerian Stock Market. The ordinary least square (O.L.S) method of multiple regressions will be used in the estimation process this is because the OLS appears appropriate as it yields estimator which are best linear, unbiased and efficient. The following are reasons for employing the OLS method.

* The mechanisms of OLS are easy to understand
* The OLS interpretation procedure is simple
* The OLS has been used in a wide range of economic relationship with fairly satisfactory results and
* The OLS is an essential component of most of other econometric techniques having specified the model as:

$$Sp = \alpha_0 + \alpha_1 EPS + \alpha_2 DPS + \alpha_3 MS + \alpha_4 OL + \alpha_5 CPI + \alpha_6 GDP + \alpha_7 INT + u_t$$

Where all the variables are as previously defined,

The model has no specification error in that all the important explanatory variables appear explicitly in the function and the mathematical form is correctly defined (linear or nonlinear form and number of equations in the model)

The Coefficient of Multiple Determination (Or the Squared Multiple Correlation Coefficient) $R^2_y. X_1 x_2$

When the explanatory variables are more than one we talk of multiple correlation. The square of the correlation coefficient is called the coefficient of multiple determinations or squared multiple correlation coefficients. The coefficient of multiple determinations is denoted by capital R^2, with subscripts the variables whose relationship is being studied. For example in the three-variable model the squared multiple correlation coefficients is R^2_y, x_1x_2. As in the two-variable model,

R^2 shows the percentage of the total variation of Y explained by the regression plane, that is, by changes in X_1 and X_2. The value of R^2 lies between0 and 1. The higher the R^2 the greater the percentage of the variation of Y explained by the regression plane, that is, the better the goodness of fit of the regression plane to the sample observations. The closer R^2 to zero, the worse fit. The value of the R^2 will be computed using the micro fit econometrics software package.

Tests of Significance of the Parameters Estimates

The traditional test of significance of the parameter estimates is the standard error test, which is equivalent to the student's t test. Traditionally in econometric applications, researchers test the null hypothesis H_0: $b_i = 0$ for each parameter, against the alternative hypothesis H_1: $b_i = 0$ this type of hypothesis implies a two-tail test at a chosen level of significance, usually at the 5per cent (and more rarely at the 1 per cent level).

The Standard error test we print the standard errors $(sb_i = var(b_i))$ underneath the respective estimates and compare them with the numerical values of the estimates.

* If $s(b_i) \leq \frac{1}{2}b_i$ we accept the null hypothesis; that is, we accept that the estimate b_i is not statistically significant at the 5 per cent level of significance for a two-tail test.
* If $s(b_i) \leq \frac{1}{2}b_i$ we reject the null hypothesis; that is, we accept that the estimate bi is not statistically significant at the 5 per cent level of significance for a two-tail test.

The smaller the standard errors, the stronger is the evidence that the estimates are statistically significant, we stress that the standard error test is an appropriate test implies a two-tail test conducted at the5 per cent level of significance.

The Student's test of the null hypothesis

We compute the t ratio for each b_i

This is the observed (or sample) value of the t ratio, which we compare with the theoretical value of t obtainable from the t-table with n-K = n-3 degrees of freedom. The theoretical values of t (at the chosen level of significance) are the critical values that define the critical region in a two-tail test, with n-K degrees of freedom.

* If t falls in the acceptance region; that is, if $-t_{0.025} t t_{0.025}$ (with n-k degrees of freedom), we accept the null hypothesis; that is, we accept that b_i is not significant (at the 5 per cent level of significance) and hence the corresponding regressor does not appear to contribute to the explanation of the variations in *Y*
* If t falls in the critical region we reject the null hypothesis, and we accept the alternative one: b_i is statistically significant.

- Clearly the greater the value of t and the s (b_i) are inversely related. For a number of degrees of freedom higher than 8 the crucial of t (at the 5 per cent level of significance) for rejection of the null hypothesis is approximately 2.
- Finally, all the variables values i.e standard error, t ratio, R^2, t probability as well as the parameter estimates in the model will be computed using microfit software 3.1

Sources of Data

Basically data needed for the study a purely secondary and therefore secondary sources will be consulted. However, In the process of collecting data for this study, data on share Prices, earning per share, dividend per share will be sourced from IFC Emerging Market data base while data on variables like interest rate, money supply, GDP and oil price shall be sourced from the CBN statistical bulletin [23] edition.

RESULTS AND DISCUSSION

This section of the research work focuses on the presentation of the empirical result, as well as its analysis and interpretation. Both the hypothesis and the model specification will be represented. Based on the findings from this chapter several inferences shall be drawn. This will enable us make an empirically grounded recommendations that will assist the policy makers on issue relating to share price in Nigeria.

Presentation of the Empirical Result

After the model estimation, the empirical model is presented as follows:

SP=26.2+0.07EPS+0.11DPS+0.002MS-
1.38INT+0.13CPI- 0.94GDP+1.47OL. eqn3
  (267.7)*(0.27)*   (0.16)*   (0.004)*   (6.53)*
(0.62)*(0.003)*(2.56)*
R^2= 0.93 F (7,2) 4.0128 (0.014)

Dw=2.4

The model from the empirical result is presented in eqn3. It shows the empirical relationship between the share price and other variables that determine it in NIgeria, such as interest rate, earning per share, dividend per share, money supply, consumer price index, gross domestic product, and oil price. The result showed that there is a positive or direct relationship between the share price and earning per share. According to the result coefficient of earning per share being 0.07 means that a unit rise in earnings per share would lead to about 7% rise in share price. This is in line with the findings of several authors among which are Somoye [24] and Livine [25] that share price do exhibit a positive relationship with major performance indicators like earning per share.

Again, the result also showed that dividend per share is positively related to share price, from the result a unit rise in dividend per share will lead to about 11%

rise in share price. This corroborated the findings of Somoye and Livine earlier explained.

The result also showed that increase in money supply has the tendency of pushing up share price since the result established a positive result between them. The coefficient of money supply from the result is 0.002 meaning that a unit rise in money supply will push share price up by about 0.2%. This findings follows the view of Livine [26]. According to him increase in money supply may increase speculative dealings in the stock market thus leading to increase in patronage of stocks and consequently pushing up share prices.

Our result has supported the theoretical postulation that there is an inverse relationship between share price and interest rate. The coefficient of interest rate from our result is negative which simply means that there is an inverse relationship between interest rate and share price.

Furthermore, Consumer price index exhibited a negative relationship with the share price. The reason for this might not be unconnected with the view of CBN 2001 that increase in CPI indicates rise in inflationary rate which means money loses its value. This has the tendency of pushing up the share price. From the result 0.13 which is the coefficient of CPI simply indicates that a unit rise in consumer price index will lead to about 13% rise in the share price.

Nigeria's GDP has also been shown to have a negative relationship with the share price while Oli price has a positive relationship with the share price. Nigerian is an oil producing country and empirical studies in the past have shown that share price in Nigeria has some connections with the oil price. According to Somoye [24], Oil revenue contributes up to about 75% to the Nigerian National income hence, the movement of oil price in the country has been influencing the activities of the Nigerian Stock Market.

Test of Statistical Significance

From the regression result, one notable feature of the result is that none of the parameter estimate of the explanatory variables is statistically significant. This means that each determinant such as earning per share (EPS), dividend per share (DPS), money supply (MS), interest rate (INT), gross domestic product (GDP), oil price (OL) and consumers price index (CPI) does not have individual significant impact on the share price in Nigeria during the period under review. The R^2 which shows the systemic variation in the dependent variable that is explained by the independent variables is very strong. The value according to our empirical result is about 0.93, which shows that about 93% variation in the share price is explained by the determinants. This is an indication that when these variables that are determinants are considered holistically they may

influence share price more than viewing them individually.

Test of Overall Statistical Significance

This is also known as R square test or F test. The F test shows that the model is statistically significant at both 5% and 10% significant levels. This simply corroborates the value of the R square which is very high. Therefore the result of the F test further confirms that collectively these determinants can have significant impact on share price in Nigeria but individually they might not be able to have the expected significant impact. Based on the forgoing, the hypothesis that these determinants has no significant impact on the Nigerian economy i.e H_0 is hereby rejected and will conclude that earning per share (EPS), dividend per share (DPS), money supply (MS), interest rate (INT), gross domestic product (GDP), oil price (OL) and consumers price index (CPI) all have collective significant impact on the share price in Nigeria.

Test for Autocorrelation

Again from equation 3 the durbin Watson test of autocorrelation was carried out as reflected by the DW (Durbin Watson) value. This test is used to verify the existence of serial correlation in the model used. Though there are various tests for this, Durbin Watson test is used in this study because of the simplicity. According to the test, DW (Durbin Watson) value that falls between 1.65 and 1.96 signifies presence of serial correlation. While any value that fall outside this region shows there is no autocorrelation. However from our empirical result a shown on table 4.2, the Durbin Watson value is 2.4. This simply means there is no autocorrelation problem in the model. Hence the model is good for forecasting.

CONCLUSION AND RECOMMENDATIONS

Evidence from this research work has confirmed that the identified determinants of share price in the Nigerian Stock Market have significant impact on the share prices of the companies used in the study during the period under review. Again, it is a confirmation the all the selected variables used as determinants of share price that is earning per share (EPS), dividend per share (DPS), money supply (MS), interest rate (INT), gross domestic product (GDP), oil price (OL) and consumers price index(CPI) are true determinants of share price in the Nigeria Stock Market during the period under review. This is shown from the result of the F test which has confirmed the model passed the test of overall significance.

Again, it can be concluded that from the analysis of the historical Nigeria data on all these variables it appears that share price has direct relationship with earning per share (EPS), dividend per share (DPS), money supply (MS), oil price (OL) and consumers price index (CPI). While it has inverse relationship with interest rate (INT) and gross domestic product (GDP). Evidence from this research work has further confirmed role of some key variables in the determination share price in the Nigerian Stock Market. Worthy of noting, is the relationship between share price and consumer price index which is positive, this is an indication that a rise in consumer price index CPI will lead to a rise in share price. This might not be unconnected with the fact that increase in CPI will aggravate inflationary rate and thus depreciating the value of local currency this has the tendency of pushing up share prices.

Again, as part of the conclusions from our study, it is quite revealing that a rise in earning per share and dividend per share might be attributed to a rise in share price. According to Somoye [24], existing shareholders are happier when there is rise in the price of their company's stock. This has been supported by the findings in this study that increase in share price has the tendency of raising their dividend. In addition, our findings have shown that expansionary monetary policy which is synonymous to increase in money supply has the tendency of raising share prices. It further confirmed that a rise in money supply may likely increase speculative dealing in stock market by people.

Policy Recommendations

Following the findings from this study the following recommendations are made:

The Monetary authorities in the country should critically appraise the activities of the Nigerian Stock Market with a view to properly influencing the identified determinants and making them to have the expected impact on the overall growth of the stock market. It has been discovered that the Nigerian Stock Market has been sharking in its responsibility of maintaining balance in the Nigerian economy. This assertion has been corroborated by many scholars, Somoye [24] and Chiwuba [27] among others have all emphasized the need to pay attention to factors influencing stock market variables such as stock prices with a view to finding solutions to some of the problems confronting the Nigerian Stock Market.

Efforts should be made the government to pay more attention to the problem of inflation and money supply in the country. Evidence from this research work has showed that high inflation rate and money supply may push up share prices. Though it may be a plus for the shareholders and may lead to rise in the growth of the companies but caution must be exercised by the monetary authorities not to be carried away by this little aspect of inflation as its negative side might be more than its positive side.

Our findings also showed that there is a negative and non-significance relationship between GDP and share price this goes along way to further corroborate the assertions of authors like Somoye [24]

who posited that the transmission mechanism between the stock market activities and the overall economic activities in Nigeria is very weak. This might be the reason why GDP has no significant impact on the share price. Again other Scholars like Livine [9] emphasized that the developed economies do some times rely on the make stock market to act as in-built economic stabilizer whenever there is economic instability. But it is obvious that this cannot be said of the developing economy like that of Nigeria where our stock market has failed to perform economic stabilization roles. Of course this is mostly because of lack of awareness in stock market activities by the Nigerians. It has been said that less than 0.2 percent of the Nigerians are conversant with the activities of the Nigerian Stock Exchange [27]. This situation does not help the stock market growth because it simply means that the largest percentage of funds circulating in the economy do not pass through the stock market therefore economic stabilization role of the stock market will be somehow difficult to execute. Consequently, effort should be made by the authorities of the stock market and other stakeholders to see how promotion of awareness in the stock market activities can be given utmost priority. When the level of awareness is raised then more people are likely to cultivate more habit of dealing in the stock market and in the long run it will lead to overall growth of the stock market.

REFERENCES

1. Ackert, L. F., & Tian, Y. S. (2001). Efficiency in index options markets and trading in stock baskets. *Journal of banking & finance*, *25*(9), 1607-1634.
2. Somoye, R. O., Akintoye, I. R., & Oseni, J. E. (2009). Determinants of equity prices in the stock markets. *International Research Journal of Finance and Economics*, *30*(13), 177-189.
3. Chaudhary, J., Agarkar, S., Manerikar, R., & Rahalkar, J. (2017). Comparison between Still photography and videography for smile analysis. *APOS Trends in Orthodontics*, *7*(3), 135.
4. Li, B., Hartono, C., Ding, R., Sharma, V. K., Ramaswamy, R., Qian, B., ... & Suthanthiran, M. (2001). Noninvasive diagnosis of renal-allograft rejection by measurement of messenger RNA for perforin and granzyme B in urine. *New England Journal of Medicine*, *344*(13), 947-954.
5. Turban, E., King, D., Lee, J., & Viehland, D. (2002). Electronic commerce: A managerial perspective 2002. *Prentice Hall: ISBN 0*, *13*(975285), 4.
6. Afifi, F. U., Khalil, E., Tamimi, S. O., & Disi, A. (1997). Evaluation of the gastroprotective effect of Laurus nobilis seeds on ethanol induced gastric ulcer in rats. *Journal of ethnopharmacology*, *58*(1), 9-14.
7. Udegbunam, R. I., & Eriki, P. O. (2001). "Inflation and Stock Price Behavior: Evidence from Nigerian Stock Market," *Journal of Financial Management & Analysis*, XX (14).
8. Ibrahim, M. (2003). Macroeconomic forces and capital market integration A VAR analysis for Malaysia. *Journal of the Asia Pacific Economy*, *8*(1), 19-40.
9. Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. *The World Bank Economic Review*, *10*(2), 323-339.
10. Demirgüç-Kunt, A., & Levine, R. (1996). Stock market development and financial intermediaries: stylized facts. *The World Bank Economic Review*, *10*(2), 291-321.
11. Nyong, M. O. (1997). Capital market development and long-run economic growth: Theory, evidence and analysis. *First Bank Review*, *12*, 12-38.
12. Hartono, S. (1994). *Penelitian hukum di Indonesia pada akhir abad ke-20*. Alumni.
13. Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the academy of marketing science*, *28*(2), 195-211.
14. Docking, D. S., & Koch, P. D. (2005). Sensitivity of investor reaction to market direction and volatility: dividend change announcements. *Journal of Financial Research*, *28*(1), 21-40.
15. Diejomaoh, M. F., Al-Shamali, I. A., Al-Kandari, F., Al-Qenae, M., & Mohd, A. T. (2006). The reproductive performance of women at 40 years and over. *European Journal of Obstetrics and Gynecology and Reproductive Biology*, *126*(1), 33-38.
16. Zhao, X. Q. (1999). Stock prices, inflation and output: evidence from China. *Applied Economics Letters*, *6*(8), 509-511.
17. Tsoukalas, D., & Sil, S. (2000). The determinants of stock prices: Evidence from the United Kingdom stock market. *International Journal of Management*, *17*(1), 53-53.
18. Ibrahim, E. H., Sherman, G., Ward, S., Fraser, V. J., & Kollef, M. H. (2000). The influence of inadequate antimicrobial treatment of bloodstream infections on patient outcomes in the ICU setting. *Chest*, *118*(1), 146-155.
19. Mukherjee, T. K., & Naka, A. (1995). Dynamic relations between macroeconomic variables and the Japanese stock market: an application of a vector error correction model. *Journal of Financial Research*, *18*(2), 223-237.
20. Chaudhuri, K., & Smiles, S. (2000). "Stock Market and Aggregate Economic Activity: Evidence from Australia," *Applied Financial Economics*.
21. Atallah, M., Bertino, E., Elmagarmid, A., Ibrahim, M., & Verykios, V. (1999). Disclosure limitation of sensitive rules. In *Knowledge and Data Engineering Exchange, 1999.(KDEX'99) Proceedings. 1999 Workshop on* (pp. 45-52). IEEE.
22. Maysami, R. C., & Koh, T. S. (2000). A vector error correction model of the Singapore stock

market. *International Review of Economics & Finance*, *9*(1), 79-96.

23. Odusola, A. F., & Akinlo, A. E. (2001). Output, inflation, and exchange rate in developing countries: An application to Nigeria. *The Developing Economies*, *39*(2), 199-222.

24. Somoye, O. (2002). International Monetary System ". *Lecture delivered at the Central Bank of Nigeria, 14 and 15th June 2002*.

25. Thiemann, T. (1998). Quantum spin dynamics (QSD). *Classical and Quantum Gravity*, *15*(4), 839.

26. Gever, E., Hermoni, N., Bergman, O., Tayar, G., Reshef, E., Gill, D., ... & Shpeizer, Z. (2001). *U.S. Patent No. 6,329,994*. Washington, DC: U.S. Patent and Trademark Office.

27. Mayowa, I. C., & Chinwuba, A. (2013). Effects of oil palm fibre on the compressive strength of Baudin, E., Bidart, J. M., Bachelot, A., Ducreux, M., Elias, D., Ruffié, P., & Schlumberger, M. (2001). Impact of chromogranin A measurement in the work-cup of neuroendocrine tumors. *Annals of oncology*, *12*(suppl_2), S79-S82.mortar. *Journal of Emerging Trends in Engineering and Applied Sciences*, *4*(5), 714-716.