Effective Management of Stock Price on Earning Surprises: Evident from Nigeria

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ABSTRACT

This study examined the effective Management of Stock Price on Earning Surprises.: Evident from Nigeria. the specifics objectives are to, evaluate how stock price and stock management affects earnings surprises. The study explored an ex-post facto research design. Secondary data was used. The data was gleaned from annual reports and financial statements of selected manufacturing companies listed on Nigerian stock exchanges. The non-experimental study looked at the cause-and-effect relationship between the dependent and independent variables. Panel least square regression were used to analyzed the data. The finding reveals that stock price (SP) has an effect on earnings surprise. The p-value shows to be (P=0.0043) which indicates a significantly effect at 5% level of significance. And stock management (SM) has an effect on earnings surprise. The p-value shows to be (P<0.001) which indicates a significant effect at 5% level of significance. We concluded that Stock Price (SP) and stock management (SM) has an effect on earnings surprise. we recommend that directors should extremely handle Stock price and stock management in such a manner that it will contribute negative effects on earnings surprises, having in mind that organizational earnings represent the image of a firm on the eyes of every investors and other financial statement users for investment analysis and decision-making

Keywords: Effective Management; Stock Price; Earning Surprises; Nigeria

1. Introduction

One of the most important components in the success of large and small businesses is the effective and efficient management of stock or inventory flow across the value chain. The issue in stock management is to strike a balance between stock supply and demand. In an ideal world, a company would have enough inventory to meet the demands of its consumers while also avoiding lost revenues due to inventory stock-outs. However, due to the high expense of carrying inventory, the corporation does not want to keep too much inventory on hand. Inventory decisions have a high risk and significant influence on an organization's supply chain management.

Earnings surprises can have a significant influence on the stock price of a firm. Positive earnings surprises, according to several studies, not only contribute to an immediate boost in a stock's price, but also to a steady gain over time. As a result, it is not surprised that some firms are recognized for consistently exceeding earnings forecasts. A share price drop is almost always the outcome of a negative earnings surprise. Investors and corporate executives were concerned about stock market reactions to earnings surprises. Profit surprises, according to Kinney, Burgstahler, & Martini (2002), occur when a company's quarterly or yearly results are higher or lower than analysts' forecasts.

These analysts, who work for a number of financial firms and reporting organizations, base their forecasts on a variety of factors, including prior quarterly and yearly reports, current market circumstances, and the firm's profit index. Earnings surprises can have a big influence on the stock price of a firm. A favorable earnings surprise, according to several research, not only leads to an immediate boost in stock prices, but also to a steady gain over time (see for example) (Mustapha, Rashid, Ado & Ademola, 2019). Despite the fact that a large proportion of earnings surprises resulted in a stock market reaction in the opposite direction, according to Sambharya (2011), stock markets tend to react in the same direction as earnings surprises, both positive and negative, despite the fact that a large proportion of earnings surprises result in a stock market reaction in the opposite direction, which may be a response Act on other relations (Mustapha, Rashid, Ado & Ademola, 2019).

Investors periodically seek the advice of Professional Analysts to forecast for future earnings of companies in which they want to invest in order to make educated investment decisions. Such a projection, which is widely dependents upon, might have a good or negative influence on the stock price of the firm. Surprise occurs when the earnings expectation exceeds or falls below the company's actual results (Lim 2009).

Statement of the Problem

In recent years, manufacturing organizations have been confronted with the issue of increasing production costs. A significant portion of this cost can be attributed to the cost of inventories, which stems from management's incapacity to maintain effective control over them. Most manufacturing companies have traditionally placed a premium on having enough inventory to support their operations and, as a result, their survival. In the framework of the above features, inventory management essentially entails planning and control.
The planning part entails determining ahead of time:

    (i)   What number of things to order; and
    (ii)   How frequently (periodicity) do we order for them to maintain overall source-store sink coordination in a cost-effective manner, lack of stock management and the stock price.

1.1 Objective of the Study

The main objective of this study is effective Management of Stock Price on Earning Surprises.: Evident from Nigeria. the specifics objectives are to:
    i.   Evaluate how stock price affects earnings surprises in listed firms in Nigeria stock exchange.
    ii.   Impact of effective stock management on earnings surprises in listed firms in Nigeria stock exchange.

1.2 Hypothesis of the Study

    i.   Stock price does not have significantly positive effect on earnings surprises in listed firms in Nigeria stock exchange.
    ii.   Effective stock management does not significant and positive impact on earnings surprises in listed firms in Nigeria stock exchange.

2. Review of the Related Literature

2.1 Conceptual Framework

Stock Price

The price of a single share of a company's sellable stocks, derivatives, or other financial assets is referred to as a share or stock price. Stock prices rise above and fall below their long-term trend at the same time as reported earnings follow similar patterns. The price of a company's stock is frequently used as an indicator of the company's overall strength and health. If a business's stock price has continuously increased over time, the company and its management are regarded to be doing well. If the stock price lags or even declines, there is a possibility of takeover, and management is likely to be sacked. By establishing compensation packages based on share prices, stock options may be utilized to match the interests of executives and shareholders (Mustapha, Rashid, Ado & Ademola, 2019).

Stock prices are typically driven by expectations for company earnings. If stock traders feel a company's earnings are high or will grow higher, they are prepared to bid up the price of the shares. Stockholders benefit when they acquire a stock at a cheap price and sell it at a high price. If the firm performs poorly, investors may lose some or all of their investment when they sell. In information-asymmetric capital markets, market players seek to accurately understand managers' dividend and profits announcements in order to make lucrative judgments. Stock prices are affected by dividends and earnings releases. Earnings reports, on the other hand, have a bigger influence on them than dividend reports (Mustapha, Rashid, Ado & Ademola, 2019).

Stock Price and Earnings Surprises

Johnston (2009) studied the relationship between stock price synchronicity and earnings surprise and proposed a negative relationship in Agubata & Ekwueme, (2019). The study's findings support stock price synchronicity as a measure of precise firm information. DuCharme, Malatesta & Sefcik (2004), opine that stock price may not provide any significant information that reveals significant information on a company's earnings volatility.

Many studies have looked at how stock prices react to earnings reports and the shocks that come with them. Stock returns are positively related to positive earnings surprises, according to Ball & Brown (1968). This is a very solid result, and subsequent research has backed up the findings of earlier studies in this field. This implies that a company's stock price can help provide useful information that can help drive the company's earnings. DuCharme, Malatesta & Sefcik (2004) also discovered that anomalous stock returns are positively connected to all components of the earnings surprise at the same time. The marginal value of innovations in terms of expected normal accruals is significantly higher than the marginal value of innovations in terms of expected cash flow, which is higher than the marginal value of abnormal accruals.

According to Degeorge, Patel & Zeckhauser (1999), the earnings distribution shows strong patterns that imply profits in connection to the relative stock price of the firm in question. Degeorge, Patel & Zeckhauser (1999), research backs up these findings, claiming that stock price can be relied on to provide earnings performance direction that investors can follow. The importance of stock price in determining formativeness has increased dramatically, and this typically reflects the quantity of firm-specific information incorporated into share price. The more information a stock contains, the more investors may rely on that information, which can lead to a large earnings surprise. Study by Kothari (2006) revealed a strong positive relationship between earnings surprises and stock prices in the days leading up to preliminary earnings releases, as well as in the days following the announcement. Earnings are a summary evaluation of significant economic events that impact a firm over time, therefore it's not strange that investors and researchers are so interested on earnings surprises.

Kinney (2002) investigates how earnings surprises manifest themselves in stock returns and discovers that, while some small negative surprises are associated with large negative returns and some small positive surprises are associated with large positive returns, 43 percent to 45 percent of firm surprises are associated with returns of the opposite sign, which is consistent with anecdotes from the press. Analysts, for example, under react to historical stock returns (Abarbanell & Reuven 2003) or to unfavorable news in a company are preceding year performance (Easterwood & Nutt, 1999).

Financial analysts who do not fully use previous observed investment in their EPS projections are not necessarily irrational. In a similar study, Johnston (2009) looked at the link between stock price synchronization and earnings surprise, and found a negative correlation. These findings support the use of stock price synchronization as a proxy for firm-specific data DuCharme (2004). Malatesta & Sefcik (2001), on the other hand, support the view that stock price may not provide any significant information that reveals significant information on a company's earnings

volatility. Stock price may not provide any significant information that reveals significant information on a company's earnings volatility. According to Kothari, Lewellen & Warner (2009), aggregate returns and earnings surprises have a negative relationship. These conclusions are further supported. As a result, this paper attempts to explore these claims using the example of Nigerian industrial firms.

Stock Management

Miller and Skinner (2013) defines inventory management as "all efforts put in place to guarantee that customers have the goods or service they require." It coordinates the purchasing, production, and distribution functions in order to meet the marketing and organizational requirements for making the product available to customers. The size and location of stockpiled products are the primary concerns of inventory management. To defend the regular and scheduled flow of production against the random disruption of running out of supplies, inventory management is necessary at several points inside a plant or across numerous sites of a supply network (Onoh & Kama, 2016).

Inventory management also includes managing the lead time for replenishment, goods replenishment, returns, and defective goods, as well as demand forecasting, inventory carrying costs, asset management, physical inventory, available physical space, demand forecasting, inventory valuation, inventory visibility, future inventory price forecasting, and quality management. It is feasible to achieve an appropriate inventory level by balancing these requirements, which is a continuous process since the firm needs to change and react to the larger environment (Owusu, Gyau & Amaning, 2016).

Inventory control refers to the ability to obtain materials whenever and wherever they are needed by keeping suitable quantities and types of stock on hand. Inventory management refers to the collection of actions that are required for the acquisition, storage, sale, disposal, or usage of materials. Inventory managers must stock up as needed and make creative use of available storage space in order to avoid running out of space. It is their obligation to keep track of inventory assets.

They must stick to the budget and decide what to order, how to order, and when to order so that merchandise arrives on schedule and at the best possible price (Owusu, Gyau & Amaning, 2016). As a result, inventory management entails organizing and controlling the flow of materials from their initial purchase unit via internal operations and distribution to the service point.

2.2 Theoretical Foundation
Efficient Market Hypotheses

It confirms the efficiency of financial markets where the published information is known. It is a market in which stock prices reflect essential information about companies. This theory was developed by Fama (1980). He stressed that the type of information available at any time determines the values of shares and that the market for safety values will become active if the necessary information is available to other investors. Based on the rational expectation theory (RET), it is also believed that the stock or bond price depends on what potential sellers and sellers believe shortly. This theory is what leads to the random walk theory or the valid market theory of stock prices as defined by Malaolu, Ogbuabor & Orji (2013). They also assume that practical market theory of stock prices uses the concept of rational expectations to infer that investors are buying stocks that they expect to have above-average returns. This study will consider two theories – namely: The Signaling Theory and the Rational Expectation Theory (RET) (RET).

Queuing Theory

The investigation of the relationship between material handling equipment and good inventory management will be guided by this idea. The mathematical study of waiting in lines or queues is known as queuing theory (Shingo, 2005). Arriving at the back of the queue, waiting in the queue (a storage process), and being served in front of the queue can all be mathematically analyzed using this theory.

The theory allows for the derivation and calculation of several performance metrics, including the average queue or system wait time, the expected number of people waiting or receiving service, and the likelihood of encountering the system in various states, such as empty, full, with an available server, or having to wait a certain amount of time to be served (Houtzeel,1992).

2.3 Empirical Studies

Wasim (2017) looks into the relationship between corporate governance and the performance of Palestinian stock market companies (PEX). The study is cross–sectional in nature and correlational in character. This study utilizes OLS regression models on a sample of 32 firms listed on the Palestine Stock Exchange (PEX) from 2008 to 2016. Findings: According to the correlation data, board size has a negative and significant effect on firm performance in terms of ROA, ROE, and Tobin's Q. According to the study, CEO duality has a significant negative impact on ROE, ROA, and Tobin's Q, but independent directors have a significant positive impact on business performance. Because the market in Palestine is restricted, the sample size was reduced from 48 to 32 firms, and this study does not assess the effect of board subcommittees for Palestinian companies due to a lack of data from annual reports. As a result, future research should look at other ownership structure characteristics, such as government ownership. Originality/value: In this study, we look at the link between corporate governance and business performance. We discovered a negative and significant impact of board size on firm performance in this study, implying that reducing board size helps to avoid free rider issues or poor coordination and communication in Palestinian firms, whereas increasing board size increases coordination and communication problems.

Isah (2017) investigates the influence of corporate features on the profitability of Nigerian DMBs. Between 2009 and 2015, data for the study were obtained from the financial statements of 14 Nigerian listed DMBs. A panel data multiple regression approach was also used in the research. Used the discretionary loan loss provision model as a proxy for earnings quality, with company size, profitability, liquidity, leverage, and ICT intensity serving as business characteristics proxies. According to the statistics, liquidity, profitability, and ICT intensity all have a substantial positive influence on profit quality, but firm size has a considerable negative impact. However, in Nigeria, leverage was shown to have no influence on the earnings quality of DMBs. As a result, it is proposed that large banks develop window services in order to respond quickly to profit-generating opportunities, and that the CBN encourage banks to engage in lower-risk commercial partnerships with fixed interest rates. In addition to the CBN's minimum liquidity requirement, the NDIC should encourage banks to create liquidity buffers, and shareholders should insist on a large percentage of their yearly earnings being invested in ICT.

Kwarbai, Olayinka, Ajibade, Ogundajo, & Omeka (2016) studied the impact of leverage on the earnings of Nigerian manufacturing firms (2016). Using multiple regression analysis, 500 business year data were evaluated. Leverage was calculated using the Degrees of Financial Leverage (DFL), Degrees of Operating Leverage (DOL), and Degrees of Combined Leverage (DCL), with two extra control factors, size and age, added to the equation. Earnings per share were used to determine earnings (EPS). According to the study's findings, EPS had a positive association with the independent variables (degree of financial leverage, degree of operating leverage, degree of combined leverage, and size), but an inverse relationship with age. As a result, we urge the firms under investigation to maintain their current leverage levels. To maintain profitability, businesses should seek to expand in size while avoiding organizational rigidity.

Owusu, Gyau, & Amaning (2016) investigated the impacts of results announcement on the market price of manufacturing firms on the Ghana Stock Exchange. The event study technique was employed in this study because it examined the impact of information on stocks. Using a 21-day window and a 60-day estimate period, the researchers used the Standardized Excess Return technique, which accounted for the majority of the issues related with intercompany stock aggregation. Using the Single Index and Risk Adjusted Returns Model, the study found that earnings releases had minimal impact on stock price, indicating that the Ghana Stock Exchange is inefficient in its semi-strong state.

3. Methodology

A secondary data, ex-post facto research design was used in this study. The ex-post facto approach is appropriate for this study due to the nature of the research, which includes the following characteristics: the study will last more than a year, and there will be a large number of businesses under evaluation. The information was gleaned from annual reports and financial statements of selected manufacturing companies listed on Nigerian stock exchanges. The non-experimental study looked at the cause-and-effect relationship between the dependent and independent variables. The study focuses on a few manufacturing companies that are publicly traded in Nigeria.

For this study, annual/panel time series data were gathered from the annual reports and accounts of the selected manufacturing enterprises listed on the Nigerian stock exchange. From 2010 to 2019, stock price and management of stock, information were evaluated. The population of the study is made up of selected listed companies that are publicly traded on stock exchanges, with a concentration on Nigeria. The researcher's target population was fifty (50) Nigerian businesses.

The sample included thirty (30) companies listed on the Nigeria Stock Exchange (NSE), which has the regulatory authority and responsibility to provide a well-ordered and organized venue for trading in corporate securities. The dependent variables are earnings surprises as a proxy for company success, while the independent variables are stock price and management of stock.

Because the numerical data used in this study was a combination of cross-sectional and time series data, the model specification for this study was built based on the nature of the data. Cross-sectional data are data gathered by watching a large number of topics (such as individuals, firms, countries, and so on) at the same time. A time series data set is a collection of data points arranged in chronological order. Panel data was created by combining these two types of data, as was the case with our data. The specification of this model allowed for the discovery of the pathways through which accounting variables like stock price and stock management influence earnings surprises in a developing nation like Nigeria. Assuming earnings surprises to be Y_{it} and the determinants given as X_{it}, a simple model of earnings surprises can be started as follows

$$y_{it} = \alpha + X'_{it}\beta + \mu_{it} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots 1$$

With i representing the firms under consideration and t is representing the time. Hence the ith subscript, therefore denote the cross-section dimension whereas the t denotes the time series dimension; X'_{it} are sets of variables such as stock price and stock management also α is a constant.

$$\boldsymbol{\mu_{it} = \pi_i + \varepsilon_{it}} \dots \dots \dots \dots \dots 2$$

Where $\boldsymbol{\pi_i}$ denotes the unobservable individual specific effect and $\boldsymbol{\varepsilon_{it}}$ denote the remainder disturbance. Linearizing the above equation (1) we have the below model for our earnings surprise.

$$\boldsymbol{y_{it} = \alpha + \beta_1(X)_{1t} + \beta_2(X)_{2t} + \pi_i + \varepsilon_{it}} \dots \dots \dots \dots .3$$

$$\text{ESUP} = \alpha + \beta_1(SP)_{it} + \beta_2(SM)_{it} + \pi_i + \varepsilon_{it} \dots \dots .4$$

Similarly Eqns 4 is also known as the one way error component model

Independent variables:

$(SP)_{it} = $ Stock Price

$(FS)_{it} = $ stock management

4. Data Analysis and interpretation

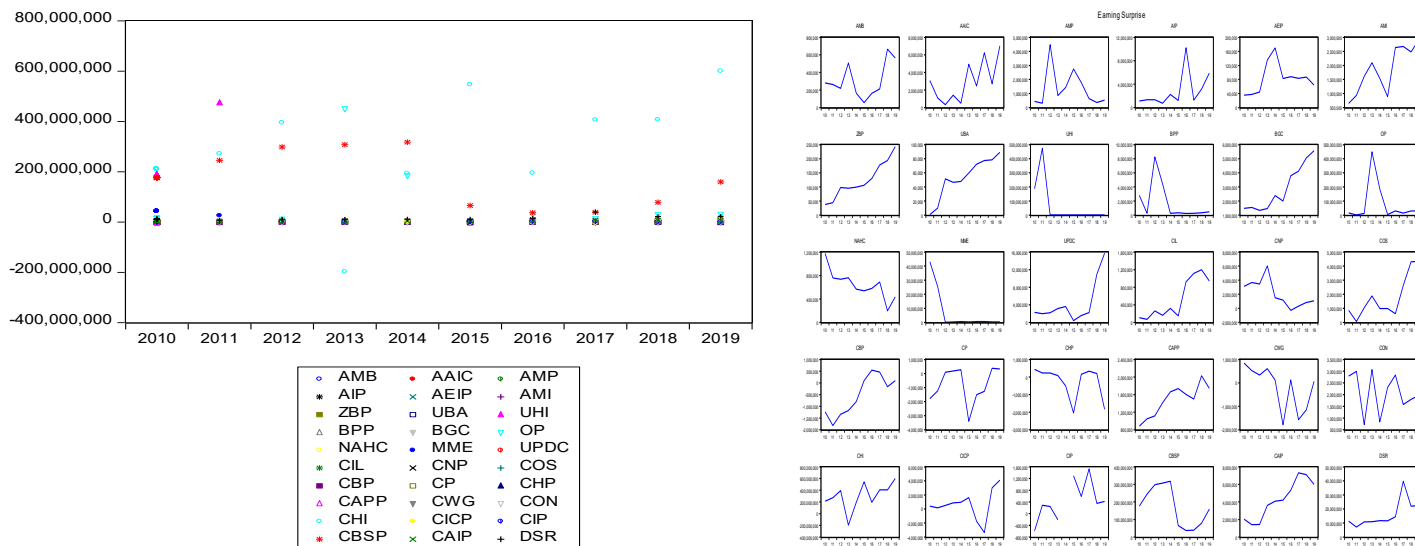*Plots of Earnings Surprises*

Fig 4.1.1: Dot and time plot of Earnings per share

Fig 4.1.1 is the Dot and time plot of Earnings surprises for the 30 companies we are studying which are listed under the Nigerian stock exchange, the above plots suggest that each company has a trend line that is either moving upward or downward. Also, we equally observed that some companies exhibited both upward and downward movement trend line.
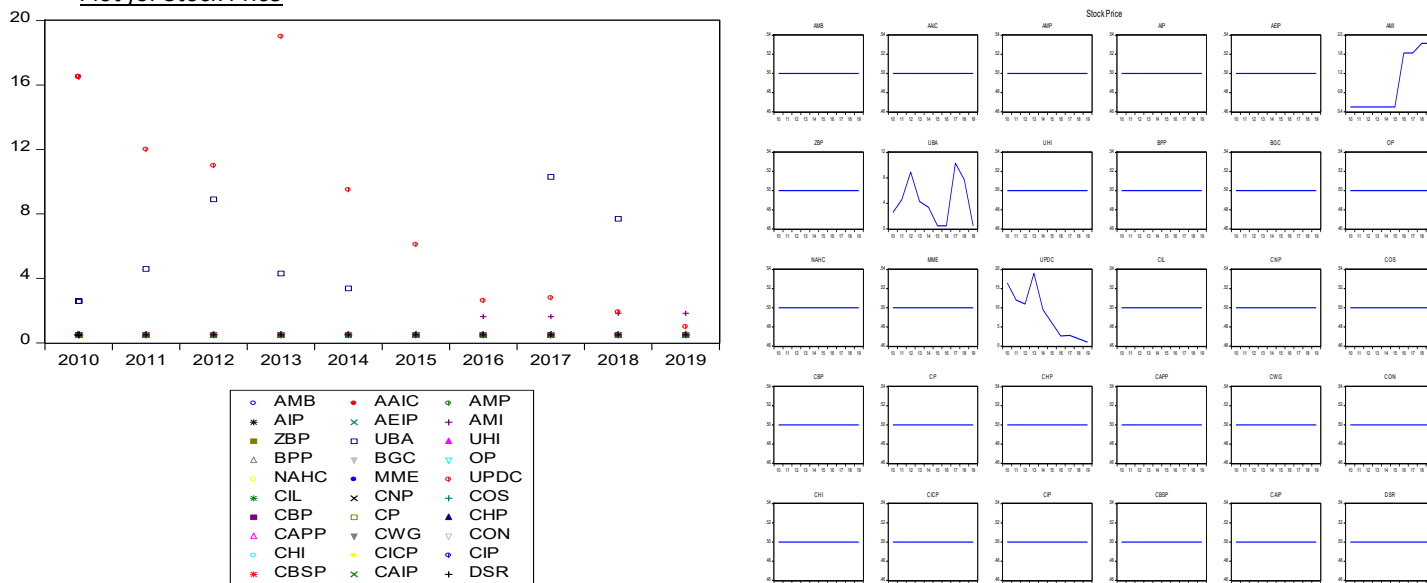
Plot for Stock Price

Fig 4.1.2: Dot and time plot of Capital investment

Fig 4.1.2 is the Dot and time plot of the stock price for the 30 companies we are studying which are listed under the Nigerian stock exchange, the above plots suggest that the stock price was virtually the same across the companies of our study over the period of years under consideration. Though only a few were exception to this observation.
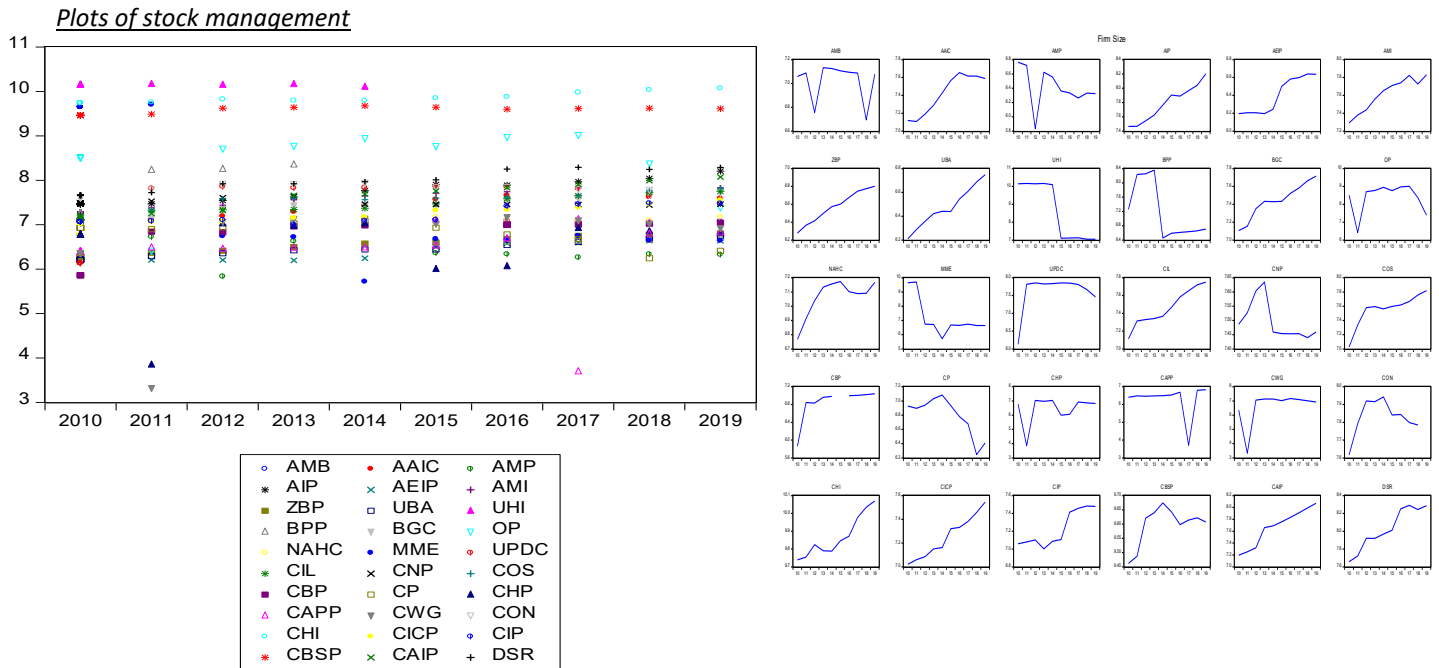
Plots of stock management

Fig 4.1.3: Dot and Time Plot of Firm Size

Fig 4.1.3 is the Dot and time plot of the stock management for the 30 companies we are studying which are listed under the Nigerian stock exchange, the above plots suggest that each company has a trendline that is either moving upward or downward. Some of the companies recorded upward increment in stock management while others are not consistence with a steady stock management increment.

Table 1: Descriptive Statistics

	STOCK PRICE	EARNING SURPRISE	stock management
Mean	0.906094	6.111499	7.405043
Median	0.500000	6.059275	7.197913
Maximum	19.00000	8.778379	10.16920
Minimum	0.500000	2.776701	3.322170
Std. Dev.	2.000714	0.949776	1.020471
Skewness	6.191198	0.667858	0.553901
Kurtosis	44.97506	4.027118	5.271830
Jarque-Bera	23700.96	35.13400	79.05690
Probability	0.000000	0.000000	0.000000
Sum	269.1100	1815.115	2199.298
Sum Sq. Dev.	1184.846	267.0140	308.2429
Observations	297	297	297

Descriptive Statistics
The descriptive statistics on table 1 above showed that the average value of the Stock price (SP), Earnings surprise (ES) and stock management (SM) are *0.9061, 22630083 and 7.4063* respectively. The standard deviation shows that Earnings surprise (ES) is the most volatile while stock management (SM) is the least volatile. Similarly, the table revealed that the skewness statistics of Stock price (SP), Earnings surprise (ES); stock management (SM) is positively

skewed. The Kurtosis statistics also revealed that the variables used are relatively Mesokurtic implying that the variables have normal distribution in nature that is the distribution of the variable is bell shaped.

Lastly, the Jarque-Bera statistic for the null hypothesis of the normal distribution for all the variables are rejected at 5% significant level as they are not significant at 5% confidence level. We shall not fully rely on this to assume that all the variable contains a unit root until we carry out an Augmented dickey fuller test.

Panel Unit Root Test

This study utilizes Levin and Chu test (LLC), ImPesaran and Shin test (IPS), Fisher augmented dickey fuller (ADF) and Phillip Perron (PP) Chi-Square Panel unit root statistics in order to scrutinize the integration properties of earnings surprises, stock management, and stock price levels across sectional units contains or do not contain a unit root. Hence for convenient reasons, we are focusing on Levin and Chu test (LLC) test statistics can lead to more accurate results about the panel integration properties of the variables. Other test such as ImPesaran and Shin test (IPS), Fisher augmented dickey fuller (ADF) and Phillip Perron (PP) Chi-Square Panel unit root statistics listed in table 2 were only accommodated for academic pleasure.

Conclusively this study adopted Levin and Chu test (LLC) test as presented in table 2 below to investigate the stationarity of the variables. The results of the panel unit root test showed that earnings surprises, stock management and stock price are all stationary at the level stage.

Table 2: Panel Unit Root Test

VARIABLE	LLC TEST	IPS TEST	ADF TEST	PP TEST	INTEGRATION ORDER
EARNINGS SURPRISES	-945.757 [0.0000]	-144.399 [0.0000]	94.9648 [0.0027]	105.089 [0.0003]	I(0)
STOCK MANAGEMENT	-14.4402 [0.0000]	-5.20277 [0.0000]	115.644 [0.0000]	141.149 [0.0000]	I(0)
STOCK PRICE	-3.15080 [0.0008]	-0.08791 [---------]	6.41954 [---------]	5.70934 [---------]	I(0)

From the above table it is obvious to note that stationarity of the variable was attained at the level stage, hence no need for further differencing.

Correlation

Correlation is a statistical measure that expresses the degree to which two variables are linearly related (meaning they change together at a constant rate). It's a common tool for describing simple relationships without making statement about cause and effect.

The sample correlation coefficient quantifies the strength of the relationship; however, correlation can't look at the presence or effect of other variables outside of the two being explored. Also, correlation doesn't tell us about cause and effect. Therefore, we have presented the below correlation table for the variable employed for this study.

Table 3: **Correlation**

Correlations			Earning Surprise	Stock Price	stock management
Earning Surprise		Pearson Correlation	1	-.057	.619[**]
		Sig. (2-tailed)		.328	.000
		N	300	300	300
Stock Price		Pearson Correlation	-.057	1	-.032
		Sig. (2-tailed)	.328		.586
		N	300	300	300
stock management		Pearson Correlation	.619[**]	-.032	1
		Sig. (2-tailed)	.000	.586	
		N	300	300	300
**. Correlation is significant at the 0.01 level (2-tailed).					

The results of the above Pearson correlation in table 3 suggest that the correlation coefficient (R) between Earnings Surprise and stock management is 0.5657 with a p-values <0.001. This shows that there is a strong and positive relationship between Earnings and stock management. The p-values indicated that the result is significant and did not occur by chance.

Secondly the correlation coefficient between Earning surprises and Stock price was -0.049706 with a p-value <0.3934. This result suggests a positive and strong relationship between Earning surprise and Stock price, the p-value indicated that the result is significant and may have occurred by chance.

It is significant to note every other correlation between all the variables can be seen in the above.

Hence for us to properly study the degree of strength of relationship and the accurate significant cause or effect of stock price and stock management on earnings surprise that we employed in our hypothesis, therefore we make use of the below pooled regression analysis.

Regression Estimate

Panel least square regression is a statistical method used in finance, accounting and other disciplines that attempts to determine the strength and character of the relationship between one dependent variable and a series of other variable known as independent variables which are of a panel data that is a data that has both cross-sectional and time series together. Table 4, 5, and 6 below summarizes the pooled, fixed and random regression output, for Earnings surprise, stock management, and stock price which include the model summary, Anova table and table of variable coefficient.

Table 4: Pooled Regression

Cross-section fixed effects test equation:
Dependent Variable: EARNING_SURPRISE
Method: Panel Least Squares
Date: 06/23/21   Time: 20:36
Sample: 2010 2019
Periods included: 10
Cross-sections included: 30
Total panel (balanced) observations: 297

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.805714	0.269185	2.993159	0.0030
STOCK MANAGEMENT	0.439735	0.044572	9.865678	0.0000
LOG_STOCK PRICE	-0.049434	0.017194	-2.875114	0.0043
R-squared	0.675497	Mean dependent var		6.111499
Adjusted R-squared	0.669921	S.D. dependent var		0.949776
S.E. of regression	0.545670	Akaike info criterion		1.646390
Sum squared resid	86.64686	Schwarz criterion		1.721011
Log likelihood	-238.4889	Hannan-Quinn criter.		1.676263
F-statistic	121.1512	Durbin-Watson stat		1.028667
Prob(F-statistic)	0.000000			

From table 4 above based on the probability value, stock management, and stock price are statistically significant. Since the regression on the model are in percentages, therefore a unit increase in the stock management leads to an increase in earnings surprise by 0.439735NGN on the average. Lastly a unit increase in stock price will lead to a unit reduction in earnings surprise by 0.049434.

The coefficient of determination which is 0.669921 reveals that approximately 67% of the variation observed by the dependent variable is caused by the independent variable. The F-statistics and the p-value (121.1512, <0.001) shows that these results are significant. Hence the above pooled regression can be represented using the below model assuming no specific effects.

$$ESUP = 0.805714 + 0.439735(\text{stock management}) - 0.049434(\text{Stock Price}) + \pi_i + \varepsilon_{it}$$

It is obvious from the above that the unobserved specific effect (π_i) are significant, therefore for us to estimate the unobserved specific effect (π_i) for this panel data model we can rely on the two dominant approaches such as fixed effect regression and random effects regression models as presented below in table 5 and 7.

Table 5: Fixed Effect Regression

Cross-section random effects test equation:
Dependent Variable: EARNING_SURPRISE
Method: Panel Least Squares
Date: 06/23/21   Time: 20:38
Sample: 2010 2019
Periods included: 10
Cross-sections included: 30
Total panel (balanced) observations: 297

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.595457	0.636012	0.936235	0.3500
STOCK MANAGEMENT	0.245871	0.051401	4.783344	0.0000
STOCK PRICE	0.013821	0.020111	0.687228	0.4925

Effects Specification				

Cross-section fixed (dummy variables)

R-squared	0.812411	Mean dependent var		6.111499
Adjusted R-squared	0.788067	S.D. dependent var		0.949776
S.E. of regression	0.437240	Akaike info criterion		1.293634
Sum squared resid	50.08888	Schwarz criterion		1.728922
Log likelihood	-157.1047	Hannan-Quinn criter.		1.467896
F-statistic	33.37267	Durbin-Watson stat		1.496370
Prob(F-statistic)	0.000000			

The interpretation of regression results in table 5 above is not different from the approach used under the pooled regression. However, we need to test further whether presence of the effects is significant or not using the redundant fixed effect tested below.

Table 6: Redundant fixed effect test

Effects Test	Statistic	Prob
Cross-section F	6.593928	0.0000
Cross-section Chi-Square	162.768414	0.0000

Probability value in table 6 above is used to test the significant fixed effects in the model, if the probability value is < 0.05 for example, it implies that the effects are statistically significant at 5% level otherwise they are not significant at that level.

Hence in this case Prob-value < 0.0001, therefore we conclude that the fixed effects in the model is significant.

Table 7: Random Effect Regression
Dependent Variable: EARNING_SURPRISE
Method: Panel EGLS (Cross-section random effects)
Date: 06/23/21   Time: 20:37
Sample: 2010 2019
Periods included: 10
Cross-sections included: 30
Total panel (balanced) observations: 297
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.127989	0.405201	2.783779	0.0057
STOCK MANAGEMENT	0.319375	0.046597	6.854030	0.0000
STOCK PRICE	-0.011132	0.018255	-0.609794	0.5425

Effects Specification				
			S.D.	Rho
Cross-section random			0.322082	0.3518
Idiosyncratic random			0.437240	0.6482

Weighted Statistics				
R-squared	0.428842	Mean dependent var		2.420716
Adjusted R-squared	0.419029	S.D. dependent var		0.583916
S.E. of regression	0.444519	Sum squared resid		57.50080
F-statistic	43.69832	Durbin-Watson stat		1.382996
Prob(F-statistic)	0.000000			

Unweighted Statistics				
R-squared	0.654265	Mean dependent var		6.111499
Sum squared resid	92.31607	Durbin-Watson stat		0.861425

Similarly the interpretation of random effect regression results in table 7 above is not different from the approach used under the pooled regression. But since we have to choose the best approach between fixed effect and random effect regression model in estimating the unobserved specific effect we make use of the Hausman test as in table 8 below

Table 8: Hausman Test

Test cross-section random effect		
Test summary	Chi-Sq. Statistics	Prob
Cross-section random	14.957266	0.0105

It's notable from table 8 above that we reject the null hypothesis of the Hausman test and conclude that the best regression model to estimate the unobserved effect in our model is the fixed effect model rather than the random effect model.

4.2 Testing of Hypothesis

Hypothesis one

H_0: Stock price does not significantly affect earnings surprises in listed firms in Nigeria stock exchange.
H_1: Stock price significantly affect earnings surprises in listed firms in Nigeria stock exchange.
The model for earnings surprise and stock price is presented in the below model

$$ESUP = 0.805714 - 0.049434(\text{Stock Price}) + \varepsilon_{it}$$

This reveals that stock price (SP) has an effect on earnings surprise. The p-value shows to be (P=0.0043) which indicates a significant effect at 5% level of significance.
Decision for hypothesis one
Based on the above report we have to reject the null hypothesis (H_0) and conclude that at 5% level of significant stock price has a significant effect on earnings surprise and this implies that a unit
Change in stock price will cause a corresponding unit reduction in Earnings surprise by 0.049434.

Hypothesis two
H_0: Effective stock management does not significantly affect earnings surprises in listed firms in Nigeria stock exchange.
H_1: Effective stock management significantly affect earnings surprises in listed firms in Nigeria stock exchange.
The model for earnings surprise and firm size is presented in the below model

$$ESUP = 0.805714 + 0.439735(\text{Firm Size}) + \varepsilon_{it}$$

This reveals that stock management (SM) has an effect on earnings surprise. The p-value shows to be (P<0.001) which indicates a significant effect at 5% level of significance.
Decision for hypothesis two
Based on the above report we have to reject the null hypothesis (H_0) and conclude that at 5% level of significant stock management has a significant effect on earnings surprise and this implies that a unit Change in firm size will cause a corresponding unit increase in Earnings surprise by 0.439735

4.3 Discussion of Finding
Objective One:
Evaluate how stock price affects earnings surprises in listed firms in Nigeria stock exchange.
Hypotheses one state that Stock price does not significantly affect earnings surprises in listed firms in Nigeria stock exchange.
This reveals that stock price (SP) has an effect on earnings surprise. The p-value shows to be **(P=0.0043)** which indicates a significantly effect at 5% level of significance.
Based on the above report we have to reject the null hypothesis (H_0) and conclude that at 5% level of significant stock price has a significant effect on earnings surprise and this implies that a unit. Change in stock price will cause a corresponding unit reduction in Earnings surprise by **0.049434.** This result agrees with (Malthus *et al* 2020) studies on Earnings Surprises and Stock Price Reactions of Quoted Companies in Nigeria. The data were analysis using regression generalized least squares technique. The results reveal positive earnings surprise which shows that share prices react negatively to positive earnings surprises. And if the stock prices react positively, earnings surprises will result negative.

Objective Two:
Ascertain how stock management affects earnings surprises in listed firms in Nigeria stock exchange. Hypotheses two state that stock management does not significantly affect earnings surprises in listed firms in Nigeria stock exchange.
This reveals that stock management (SM) has an effect on earnings surprise. The p-value shows to be **(P<0.001)** which indicates a significant effect at 5% level of significance.

Based on the above report we have to reject the null hypothesis (H_0) and conclude that at 5% level of significant stock management has a significant effect on earnings surprise and this implies that a unit. Change in stock management will cause a corresponding unit increase in Earnings surprise by **0.439735.**

The result agrees with Hasan and Mohammad (2013), that examine the effect of the stock management on the relationship between conservatism and earnings management in companies listed on the Tehran Stock Exchange. The result revealed that, the stock management has a positive effect on the relationship between conservatism and earnings management.

5. Conclusion

Based on the findings, the study concluded that Stock Price (SP) has an effect on earnings surprise. This implies that a unit change in Stock price will cause a corresponding unit reduction in Earnings surprise**.** stock management (SM) has an effect on earnings surprise. And this implies that a unit change in stock management will cause a corresponding unit increase in Earnings surprise**.**

6. Recommendation

In respect of the findings of this study, the following recommendations were made:

I. Since a unit change in stock price usually affects earnings surprise, we recommend that directors should extremely handle Stock price in such a manner that it will contribute negative effects on earnings surprises, having in mind that organizational earnings represent the image of a firm on the eyes of every investors and other financial statement users for investment analysis and decision-making.

II. Since a unit change in stock management will cause a corresponding unit increase in Earnings surprise**.** We strongly recommend that directors should work very hard in order to increase the control of inventory as well as providing an effective internal control system. Also, an efficient internal control system to help control inaccurate disclosure of financial information to the public.

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