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## EFFECTS OF ACCOUNTING INFORMATION ON STOCK RETURNS OF QUOTED NON-FINANCIAL FIRMS IN NIGERIA

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### **Abstract.**

*The stock market has functionally remained a key player in the Nigerian capital market, especially by providing access for investors in equity. As a trust based market, the sustenance of investors' confidence via client's accountability is a primary responsibility of both operators and regulators. The study examined the effects of financial accounting information on stock returns of quoted non-financial firms in Nigerian. Specifically, the study ascertained the effect of dividend per share (DPS); operational cash flow (OCF) and invested capital (INC) on the stock returns of quoted non-financial firms in Nigeria. The study adopted ex-post facto design which allowed the use of secondary data. The panel data were collected from financial reports of seventy-five (75) sampled non-financial firms quoted on the Nigerian Exchange group (NGX) between 2012 and 2021, out of one hundred and twelve (112), using purposive sampling technique. The hypotheses formulated were tested with panel quantile regression at 5% level of significance. The result of the analyses indicates that Dividend per share has negative and significant effect on stock returns; Operational cash flow has positive but no significant effect on stock returns; and invested capital has negative and no significant effect on stock returns of quoted non-financial firms in Nigeria. The policy implication of the findings of the study is that Dividend per share is a veritable tools in predicting accounting information value relevance among the quoted non-financial firms in Nigeria. Thus, the study concludes that DPS is the accounting information that significantly influences investor's decision in non-financial firms in Nigeria. The study recommends among others that non-financial quoted firms in Nigeria should restore the investors' confidence in the financial statements, ensuring that at all time that their share price will be a reflection of their performance.*

**Keywords:** Accounting Information, Dividend per share, Operational cash flow, invested capital, stock returns

## 1.0 INTRODUCTION

In the recent years, stock markets all over the world had turbulent time due to numerous accounting scandals and financial crises that have happened in several notable companies. This has undermined investors' trust concerning the financial reports and also encouraged several criticisms about quality, relevance and reliance of accounting information (Babatunde, Akeju & Malomo, 2017). These accounting scandals occurred mostly because the firms were manipulating earnings and reporting doctored accounting information to achieve their desired goal (Sadiq, Mohamad & Kwong 2019). For this reason, many researchers argued that financial statements are less relevant in assessing the fundamental market value of quoted companies. According to Apete, Udeh and Ezekwesili (2022), while accounting can be an important factor in some decisions, accounting that masks or fails to capture meaningful information for the benefit of all investors is not sound and puts investors at risk. Consequently, investors are pushed to other areas of investment where their need for accounting information is met. Therefore, the value and the quality of accounting information are determined by how well it meets the needs of users and the flow of reliable information is crucial to the growth of the Nigerian Exchange Group (Ogbodo & Osisioma, 2020; Elechi, Ogbonnaya, Nwogu, & Nwambeke, 2022).

Nigerian capital market is the engine of economic growth. It is an essential agent for economic growth because of its ability to facilitate and mobilize savings and investment (Keji, 2020). In other words, the growth of the Nigerian Exchange Group, invariably depends on the quality of accounting information. This is because without it, savers would simply keep their hard-earned savings under their mattress and ignore investment. Thus, it may not be an overstatement to say that Nigerian Exchange Group will not function well without relevant and reliable accounting information. Hence, the study of whether the market values of stock listed on the Nigerian Exchange Group reflect accounting information is not only important to investors but also crucial to Nigerian economic growth.

Accounting information however, is a very vital instrument in any organization for essential decision making. It is used by both formal and informal organizations to communicate to all their stakeholders about the state of affairs and operational performance over a particular time frame. Accounting information is value relevance, as the existing literatures have demonstrated that accounting information is related to value, and by extension, relevance (Elechi, Ogbonnaya, Nwogu, & Nwambeke, 2022; Agbata, Uchegbu, & Eze, 2021). According to Enofe, Asiriwa, & Ashafoke (2014), accounting information has ability to capture or summarize information that affects equity value and there exist a relationship between accounting numbers and share prices in the Nigerian Stock Market. A study by *Ewereoke (2018)* showed that *EPS is value relevant to equity share investment in Nigeria stock exchange market*. The study of *Okafor, Ogbuehi and Anene (2017)* also showed that IFRS adoption has an incremental effect on the value relevance of book value, earnings per share, and cash flow from operations, with earnings per share showing the highest increment. Muhammad & Waqar (2016) also found that accounting information parameters have significant influence on share price and they have joint explanatory power in determining stock prices.

Consistent with efficient market theory, stock values are a reflection of accounting information; and as such they serve as the basis for the valuation of whether a business enterprise is performing well or not. Efficient market hypothesis argued that in an active market of large number of investors, stock will be appropriately priced and will reflect all available information, (Nwadisa & Kasie, 2012). The price serves as the basis for the

valuation of whether a business is performing well or not. In that regard, Glezakos, Mylonakis & Kafourous (2012) opined that the values are relevant measurement of the returns accruing to the stakeholders; therefore, the value attached to them serves as a major boost to both existing and prospective investors in the capital market. Based on this, Wan (2010) remarked that Accounting information variables will assist investors to determine the expected returns on their investments.

Many studies have been carried out on the effects of accounting information on stock values both in Nigeria and abroad (Khanna, 2014; Ali, 2017; Ngoc & Manh, 2017; Pereira & Thrikawala, 2010; Ngoc, Thi & Manh, 2017). Some extant studies were also conducted in Nigeria (Yusuf, Akpan, Iriabije & Yusuf, 2021; Ordu, Enekwe, and Anyanwaokoro, 2014). However, despite the increase in number of the study of effects of accounting information on stock values in Nigeria, it is important to note that great numbers of the studies were done using data of manufacturing firms, firms listed under services sector, banking sector and consumer goods sector. Previous studies from Nigeria did not focus on non-financial sectors which contribute significantly to the economy. These previous studies employed different methodological approach in terms of design, model and analytical tools leading to differences in many factors such as the diverse circumstances present in different industries, different countries; considering the dissimilarities in emerging and developed countries, and various methods used, provide varying and opposing findings in different research papers conducted in the area of value relevance of accounting information. It was discovered that none of the extant studies reviewed used 2021 data, hence this research used 2021 data. This study is therefore encouraged by the quest to address these gaps; and to examine the effect of accounting information on stock returns of quoted non-financial firms in Nigeria.

## **1.2 Objectives of the Study**

The main objective of this study is to examine the effects of accounting information on stock returns of quoted non-financial firms in Nigeria. Specific objectives include to:

1. Evaluate the effect of dividend per share on stock returns of quoted non-financial firms in Nigeria
2. Investigate the effect of operational cash flow on stock returns of quoted non-financial firms in Nigeria.
3. Examine the effect of invested capital on the stock returns of quoted non-financial firms in Nigeria.

## **2.0 REVIEW OF RELATED LITERATURE**

### **2.1.1 Accounting Information**

Accounting information refers to the financial statements generated through the process of book-keeping and accounting. Accounting information is measurable and quantifiable information about the transactions and events involving a business entity (Laura, 2018). It is the information that arises from business transactions. Once identified, the information is then classified and recorded, and it eventually finds its way into various reports. Financial reporting is concentrated with responsibility of providing valuable information to users of financial information so that they can make informed decisions. According to accounting standards setters around the world, accounting information must have two crucial qualitative characteristics: relevance and dependability, in order for it to be helpful to users (Mbekomize & Popo, 2020). The quality of relevance refers to information that has the potential to influence users' decisions. In addition, information capable of making a difference in decisions must have a value that can predict future outcomes and/or must have confirmatory

value that is ability to provide feedback on the previous evaluations (International Accounting Standards Board, 2018).

Accounting information is a very vital instrument in any organization for decision making. Both formal and informal organizations use accounting information to communicate to all stakeholders about the state of affairs and operational performance over a particular time frame. Accounting is seen as any information system that is used for both communication purpose and decision making within an organization. Bello (2009) sees accounting as an information infrastructure used by economic units to achieve various economic decisions.

According to Abubakar (2012) financial reporting serves as a medium through which corporate organizations communicate to its stakeholders. Corporate financial reporting also serve as a medium in which business organizations or companies communicate to the general public who are the potential owners about their business actives, like profitability, effectiveness, efficiency, and responsibility (Abubakar, 2012). According to Oyerinde (2011) Accounting provides a vital service to broad and diverse users. Investors use financial accounting information for investment decisions; government agencies need it particularly for tax purposes while regulatory agencies use it to determine whether existing statutory pronouncements are complied with, among others (Kajola and Adedeji, 1999). According to Meyer (2007), “accounting plays a significant role within the concept of generating and communicating wealth of companies”. Financial statements still remain the most important source of externally feasible information on companies. Accounting information according to Laura (2018) is information or data about a business entity’s transactions. It emanate from buying inventory and machinery to entering into long-term building contracts, the event that occur in business operations always translate into accounting information. Accounting information helps people make business and financial decisions. Their trust in the accuracy and reliability of this information is almost as important as the business’s actual financial results.

The study therefore, stand by the view of Laura (2018) because, it is important to have a system that accurately captures the realities of a business’s operations and its financial standing and reports the information in good faith. There are many users of accounting information, each of whom has different concerns about the business. Managers need to be able to forecast the potential results of different business decisions. Employees want to know that the business will continue to operate in a financially stable way. Investors want to know how a business utilized their money to turn a profit, and they need to be able to compare the business to other businesses in order to evaluate investment strategies. Suppliers and other creditors need to know about the financial performance of a business and whether or not the business has enough assets or is using too much credit.

### **2.1.2 Stock Returns**

Returns are the results obtained, according to Jogiyanto (2014), from investments made in companies. Return might be reflected as a return realization which has been occurred and might be reflected as return expectation that has not happened yet but expected in the future. Return realization is the return that has occurred and is being calculated by the use of historical prices. Return realization is considered important because it is used as a basis for determining return expectations and risks that might occur in the future.

Stock return according to Rahmawati & Handayani (2017) is a crucial factor considered by investors in making investment decisions. Stock returns reflect the collective assessment of investors of a company’s current stock return and prospects (Rahmawati & Handayani, 2017). According to Tan, Galagedera, and Maharaj (2012) and Saeedi, Abessi, Sharifi, and

Meraji (2010) the only thing that motivate an investor to invest in the stock market is to get high returns. According to Berggren & Bergqvist (2014) stock market returns provide useful signals regarding the future state of the economy, including the economic and financial status. However, from these factors, financial information is one of the main elements used by investors in making investment decisions (Anwaar, 2016; Gupta & Modise, 2013; Purnamasari, 2015; Utomo, Pamungkas, & Machmuddah, 2018).

Stock total return is the percentage increase in stock value, it is represented as the current value of stock in addition to any dividends already paid compared to the original value at which stock were purchased (Dhand, 2020). Return on stock is equal to the sum of all dividends yielded from the stock and the stock capital gain minus the initial cost of the investment divided by the initial cost value for investment, end result is multiplied by 100 to convert into percentage.

### **2.1.3 Dividend per share (DPS)**

Dividend policy is a major financing decision that involves the firm paid back to shareholders in return for their investments in the shares of the company. The demand for the firm's share should to some extent, dependent on the firm's dividend policy. Selecting a suitable dividend policy is an important decision for the firm because the flexibility to invest in future projects depends on the number of dividends that they pay to their shareholders. If a company pays more dividends, then little funds will be available for investment in future projects. Borrowers/Lenders are also interested in the amount of dividend that a company declares, because if more amounts is paid as dividend from the firm's earnings that means less amount would be available to the company to pay off their obligations.

Kalama, (2013) said that dividends are the only cash payment a stockholder receives directly from a firm and these are the foundation of valuation for common stocks. Stock price response to an unexpected dividend change announcement, but the shareholder's reaction to dividend change announcement is related to the dividend preferences of the marginal investor in from other firms being equal (Dong, Robinson & Veld, 2005).

Dividend per share is important because the number one goal of a company is to return value to its shareholders. Dividend Per Share showed a total amount of dividend that is attributed to each share outstanding. It is the total amount of dividends attributed to each individual share outstanding of a company. Calculating the dividend per share allows an investor to determine how much income from the company he or she will receive on a per-share basis. It is represented mathematically as gross dividend measured by the number of ordinary shares in issue.

### **2.1.4 Operating Cash Flow**

Operating cash flow according to Gordon, Henry, Jorgensen, and Linthicum (2017) is the amount of money remitted for the procurement of merchandise, tax settlements, vendor expenses, wages and other operation spending. Operating cash flow information offers the users with a clear picture of how much cash a firm requires availing or has generated from its daily business operating activities.

Operating cash flow (OCF) according to Utomo et al. (2018) is one of the most important figures in a firm's financial accounts. It reflects the amount of cash that a business produces solely from its core business operations. Operating cash flow is intensely scrutinized by investors, as it provides vital information about the health and value of a company. If a



company fails to achieve a positive Operating cash flow, the company cannot remain solvent in the long term. A negative Operating cash flow indicates that a company is not generating sufficient revenues from its core business operations, and therefore needs to generate additional positive cash flow from either financing or investment activities.

### **2.1.5 Invested Capital**

Adam (2020) sees Invested capital as the total amount of money raised by a company by issuing securities to equity shareholders and debt to bondholders, where the total debt and capital lease obligations are added to the amount of equity issued to investors. Invested capital is not a line item in the company's financial statement because debt, capital leases, and stockholder's equity are each listed separately in the balance sheet. Ewereoke (2018) opined that Invested capital equals the sum of all cash that has been invested in a company over its life with no regard to financing form or accounting name. It's the total investment in the business from which operating profit is derived. Invested capital is also refers by Ukolobi (2020) as the combined value of equity and debt capital raised by a firm, inclusive of capital leases.

According to Corporate Finance (2022) invested capital is the funds invested in a business during its life by shareholders, bond holders, and lenders. These funds can include non-cash assets contributed by shareholders, such as the value of a building contributed by a shareholder in exchange for shares or the value of services rendered in exchange for shares. A business must earn a return on its invested capital that exceeds the cost of that capital; otherwise, the company is gradually destroying the capital invested in it. Thus, invested capital is considered to be a financial analysis concept, rather than an accounting concept.

Invested capital according to CFT (2022) is the investment made by both shareholders and debt holders in a company. When a company needs capital to expand its business, it can obtain it either by selling stock shares or by issuing bonds. Shareholders are people who have purchased stock in a company and debt holders are those who have purchased bonds.

Invested capital for a company, is a source of funding that enables companies to take on new opportunities like expansion and also used to purchase fixed assets such as land, building, or equipment, and to cover day-to-day operating expenses such as paying for inventory or paying employee salaries. Companies may choose invested capital funding over taking out a loan from a bank for numerous reasons. For example, if a company issues stock shares, it has no obligation to issue dividends. This makes it a cheap source of capital when compared with paying interest on a bank loan. A company may also prefer to obtain funding through shares and bonds if they do not qualify for a large bank loan at a low-interest rate (CFT, 2022).

For an investor, invested capital is evaluated using measures such as the return on invested capital (ROIC) ratio. This ratio is used by an investor to determine the value of a firm. A relatively higher ratio indicates a company is a value creator and is capable of utilizing invested funds to generate higher profits, as compared to other companies. Dividing revenue by capital invested, the ratio shows the ability of a company to drive sales through its capital. A company that has a higher ratio compared to its competitors means they are operating more efficiently.

The amount of invested capital is not listed on a company's balance sheet as a separate line item. Instead, the amount must be inferred from other information stated in a

company's accounting records. The calculation for invested capital under the financing approach is:

***Invested capital = Amount paid for shares issued + Amount paid by bond holders for bonds issued + Other funds loaned by lenders + Lease obligations - Cash and investments not needed to support operations***

Retained earnings that is earnings generated by a business, are not included in the calculation of invested capital. An alternative way to derive invested capital is called the operating approach. Under the operating approach, the calculation of invested capital is as follows:

***Invested capital = Net working capital needed for operations + Fixed assets net of accumulated depreciation + other assets needed for operations***

For the operating approach, the figures needed are (1) working capital, 2) PP&E and (3) goodwill and other intangibles. Firstly, to get the net working capital figure, subtracts the non-interest bearing liabilities from current operating assets. Next, to get the PP&E, add the manufacturing plant with manufacturing machinery. Lastly to get the goodwill and intangibles, add the goodwill amount with propriety technology. The last step toward getting the invested capital is to add the three categories together.

The issue with either variation on the formula is that the determination of how much cash and other assets are needed to support operations is a judgment call, and so it can vary based on the perceptions of the person creating the measurement. Usually, a lengthy cash conversion cycle calls for the designation of more assets as being necessary for operations. Invested capital or Return on invested capital shows how efficiently a company uses its investment to generate profits, while earnings per share are derived from the amount of profit divided by the number of outstanding shares (Wira, 2011). Sudiyatno and Suharmanto (2011), and Zuliarni (2012) in their respective studies revealed a real effect of return on assets on stock returns. Likewise, studies by Priatinah and Kusuma (2012) which show that, return on investment has a positive and significant effect on stock returns, while Sunardi (2010), Heriani (2011), and Hatta and Dwiyanto (2012) reveal the positive and insignificant effect on stock returns, that is return on invested capital or ROA has not a significant positive effect. Harjito and Aryayoga (2009), Setiyorini (2011), and Arista and Astohar (2012) found different results, the performance of return on assets in their respective studies actually did insignificantly influence stock returns.

### **2.1.3 Usefulness of Accounting Information on Stock Returns**

The ultimate goal of every financial statement is to provide information about a firm that will aid users to make better decisions, especially the investors to make optimal investment decisions (Germon & Meek, 2001). Financial accounting information should increase the knowledge of the users and give a decision-maker the ability to envisage the future value of the firm. The value relevance of accounting information has been studied from many perspectives. Value relevance of accounting information according to Nilson (2003) deals with the usefulness of financial statement in equity valuation. It examines the association between the cost of security and accounting variables (Beaver, 2002). Scott, (2003) claimed that accounting information is value relevant if it leads investors to change their beliefs and actions towards investing in a particular stock of a particular firm. To be relevant, accounting data must among others, be quick to respond to users' needs, particularly the investors.

Accounting exists primarily to satisfy the users' information, and if this need is not met, those who have money to invest and lend would take the money to where the need for information necessary for their decision to invest are met (Germon & Meek, 2001). In essence, the investors in particular, should be supplied with information to help them make appropriate appraisals and take a good investment decisions. Value relevance studies involves test whether accounting data are relevant for equity valuation in the local stock market and to relate the results of the test with results obtained by previous researchers of rich countries and draw conclusions about the state of the local economy. Klimczak (2009) states that in both cases value relevance is treated as proof of the quality and usefulness of accounting numbers. Riahi-Belkaoui, (2000) sees accounting information as relevant if it can impact decision-makers' decisions. Value relevance of accounting information is described by Chen, Chen, and Su (2001) as the ability of information given by financial statements to analyze corporate value.

Zaleha, Muhd-Kamil, Jagjit, and Hamezah (2008) point out that the usefulness paradigm proposes that accounting information is useful if utilized by users of financial statements for, or significantly associated with their decision making. (Riahi-Belkaoui, 2000) stated that even though the information might not be stated at their best current value while (Scott, 2000) is of the view that within this conception, the main users are those who make decisions that relate to the firms' value, specific decision-making by capital market participants. The Comprehensive Income Statement does not provide any information showing the extent of the value or the wealth created by the company for a particular period. Contribution to the company by other stakeholders cannot be accessed through the Comprehensive Income Statement. Hence, there is a need to modify the existing accounting and financial reporting system so that a business unit can give importance to judge its performance by indicating the value or wealth created by it. To this direction inclusion of the Value Added Statement (VAS) in the financial reporting system is a newly developed technique, which is regarded as a part of social responsibility accounting and reporting (RSiti U &, Noraya, 2010; Suadiye , 2012).

Financial report according to Ghayoumi, Nayeri, Ansari, & Raeesi (2011) has a primary objective of providing information to the investors for investment decision making. Consequent upon this, the usefulness of information contained in financial reports depends upon their usefulness for investment decision making. From the investors' perspective, information is relevant if it contributes to the equity investment decisions of the investor (Glezakos, Mylonakis, & Kafuoros, 2012). Useful accounting information must possess the primary attributes of relevance and reliability. Relevant accounting information must possess the capacity to influence the decision of the investor (Halonen, Pavlovia, & Pearson, 2013). The study impact of financial statement information on capital markets indicators (share price, the volume of trade etc) is referred to as the value relevance studies and it is part of the Capital market-based accounting research. Information is considered 'value relevant' if stock price movements are associated with the release of such information (Holthausen & Watts 2001). After they empirically studied the correlation between annual report earnings data and stock price, they found that if a company had excess earnings, then investors could get an abnormal return.

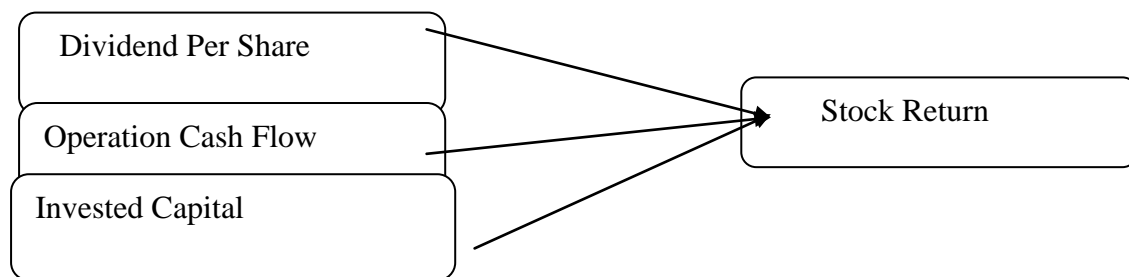
The relationship between accounting information and the stock value has been significantly examined on a global scale. The results of Nguyen (2009) show that the relationship between accounting information and stock returns is statistical significance, although this relationship is weaker than most of other developed and emerging markets. Also, the result of Tran et al.



(2015) indicate that there is a correlation between accounting information and stock returns in Vietnam, but this correlation is slightly weak. This means that accounting information is less useful for investors to make decisions in Vietnam stock market. Ta (2015) also observed that accounting information are positively correlated to stock returns. The results of Tran (2015) show that there is evidence of a positive impact of accounting information on stock returns in Vietnam stock market in the long term. Chen *et al.* (2001) examined the relationship between accounting information and stock price in the Chinese stock market and their result showed that accounting information was value relevant according to both pooled cross-section and time-series regression. The results of Safajou *et al.* (2005) showed a significant relationship between EPS, BVPS and market price.

### Conceptual Frame Work.

#### Accounting Information



Source: Researcher's conceptualization 2023

### 2.2 Efficient Market Hypothesis (EMH)/ Theory of Market Efficiency

The efficient market hypothesis (EMH), which is alternatively known as the efficient market theory, is propounded by Fama in the year 1965. The theory states that share prices reflect all information. The theory suggested that at any point of time, prices will fully reflect all available information about individual stock and the stock market as a whole. This is because if new information arrives, the news spread very quickly and is incorporated into the prices of securities immediately. Thus, no market player has the advantage in forecasting stock price movements since no one has access to information that is not available to the entire market.

The efficient market theory is so much linked to the study of value relevance of accounting information and stock price because it explains the relationship between accounting information in the financial statement and the share price. The theory suggested that prices reflects all available information about individual stock and the stock market as a whole, explaining the relationship between dependent variable (stock returns/share price) and independent variable (accounting information) of this study.

### 2.4 Empirical review

Liafisu, Temile and Enaruna (2022) carried out study on 'the value relevance of the quality of IFRS-based published financial information of non-financial companies in Nigeria'. The study examines whether the quality of IFRS based published financial information in Nigeria increased during post-IFRS period. It was found that information provided in post-IFRS published financial statements is of higher value to investors/shareholders.

Apete, Udeh and Ezekwesili (2022) carried out a study on ‘Value relevance of accounting information and share price of listed manufacturing companies in Nigeria’ The research design employed in this study is Ex-Post Facto research design with a total population of twenty one (21) quoted consumer goods manufacturing firms on the Nigerian Stock Exchange. This study employed Ordinary Least Square (OLS) estimate using panel data from 2012 to 2020. It was found that there is significant and negative relationship between Book Value of Equity per Share and Share Price of listed manufacturing firms in Nigeria. Earnings per share have a significant and positive relationship with Share Price of the listed manufacturing firms in Nigeria.

Yusuf, Akpan, Iriabije, and Yusuf (2021) on their work assess ‘Value Relevance of Accounting Information and Share Price: Moderating Influence of Corporate Governance Practice of Listed Firm in the Nigerian Stock Exchange (NSE)’. The study concludes that governance practice influences the relationship between Accounting information and share price among list firms in Nigeria.

Agbata, Uchegbu, and Eze (2021) examined the effect of IFRS on the value relevance of accounting information in the Nigerian stock market. The study employed Ex post facto research design considering a total population of 180 firms quoted on the NSE. It was found that the effect of EPS, BVE, and DPS on stock price in the pre and post-periods of IFRS is not statistically significant.

Okoro, and Ibanichuka (2020) Accounting Information and Market Value of Quoted Manufacturing Firms: Panel Data Evidence from Nigeria. The study measured the relationship between accounting information and the market value of quoted firms in Nigeria using Cross sectional data sourced from financial statement of 23 manufacturing firm from 2008-2017. The study found that the beta coefficient of the variables indicates return on equity; earnings per share, dividend per share have positive effect on the market value of the quoted firms.

The study conducted by Azar, Zakaria and Sulaiman (2019) on the Quality of Accounting Information: Relevance or Value-Relevance. The study critically evaluates the qualitative characteristics of accounting information that can be drawn from the Financial Accounting Standard Board (FASB)/International Accounting Standard Board (IASB), Conceptual Framework and Value-Relevance studies that are motivated by users of accounting information. The study reviews the value-relevance literature and Statement of Financial Accounting Concepts (SFAC) No. 8, which was issued by FASB in September 2010 in order to make a distinction between them. The findings of the study reviewed that the value-relevance literature, which reported the associations between accounting numbers and common equity valuations, has limited implications or inferences for accounting information users. As some scholars believe that the value relevance model indicates that accounting information is relevant and reliable, it is, however, difficult to attribute the cause of the lack of value relevance to the relevance or the reliability aspects as the value relevance model does not distinguish between relevance and reliability.

The study of Ngoc, Thi and Manh (2017) on the relationship between accounting information in the financial statements and the stock returns of listed firms in Vietnam Stock Market. using OLS, FEM, REM, GLS, and GMM regression models, the study examines the association of earnings, volatility in the rate of return, size, leveraging ratios and growth rates to the stock returns of 274 firms in the period from 2012 to 2016. The findings of the study show that the rate of return, the change in the rate of return, gearing ratio and growth

rate are positively correlated to the stock returns, while the size of firm by assets is negatively related to stock returns.

### 3.1 METHODOLOGY

The ex-post facto research design is employed in this research work. The study utilized secondary data that were obtained from the published audited annual reports and accounts of 75 out of 112 selected non-financial firms quoted under Nigeria exchange groups as at 2021. The proposed hypotheses were tested using the panel quantile regression

### 3.2 Model Specification

The study adapted Ohlson's (1995) valuation model which states that the value of a firm is a linear function of earnings and book value of equity. By the Ohlson (1995) Model:

$$MKTP_{it} = \beta_0 + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + e_{it}$$

(1)

The researcher therefore modified the Model as follows:

$$SR = f(DPS, OCF, INC) \quad (2)$$

$$SR_{it} = \beta_0 + \beta_1 DPS_{it} + \beta_2 OCF_{it} + \beta_3 INC_{it} + \epsilon_{it} \quad (3)$$

Where;

SR<sub>it</sub> = Stock Returns for firm i at the end of the year t.

DPS<sub>it</sub> = Dividend Per Share of firm i at the end of the year period of time t

CFOP<sub>it</sub> = Cash Flow Operation for firm i at the end of the year period of time t

INC<sub>it</sub> = Invested Capital of firm i at the end of the year period of time t

$\beta_1$ -  $\beta_3$  = Coefficient of parameters estimated

$\epsilon$  = error term

### 4.1 Data Presentation, Analysis and Interpretation

This present the results of the various pre-estimation tests including Descriptive statistics that exposes the nature of the dataset used in the study, Correlation test used to check the level and nature of relationship between the dependent and the various explanatory variables, the variance inflation factor (VIF) test used to investigate the existence or not of multi-collinearity among the explanatory variables, cross sectional dependence test to check the possibility of shock transmission from one firm to others. Thereafter, the panel quantile regression is presented, as the stability test of Ramsey, which is a post-estimation test checking for possible omission of necessary variables in the model of the study.

## 4.2: Descriptive Statistics

**Table 1: Output of Descriptive Statistics**

	SR	DPS	CFOP	INC
Mean	8.901120	1.165787	9904228.	36822654
Median	-2.725000	0.060000	474397.5	3586680.
Maximum	1319.480	68.20000	5.98E+08	1.27E+09
Minimum	-255.1800	0.000000	-31027892	-67332347
Std. Dev.	87.43104	4.968223	43358162	1.19E+08
Skewness	9.547290	9.152632	8.423781	6.884789
Kurtosis	134.3658	103.3017	86.73994	58.49989
Observations	750	750	750	750

**Source: Authors Computation (2023)**

As presented in Table 1 above, the descriptive statistics reveal the nomenclature of the dataset used in this study. The stock return (SR) has a mean, maximum, and minimum of 8.901120, 1319.480, and -255.1800, respectively. Indicating variations across firms and periods. The mean values of 8.901120 give the impression that the spread both across firms and periods tends towards the minimum values, with the medium value, which is negative, supporting the same. This is true and expected because, in reality, these firms vary both in size, portfolio, number of institutional investors, market share, and age. For dividend per share (DPS), which has a mean value of 1.165787 and maximum and minimum values of 68.20000 and 0.000000, there seems to be an overly poor performance. This implies that some of the sample firms had zero DPS for some of the periods. The average indicates that the majority of the firms and periods witnessed a DPS value that tends towards the minimum. The investment capital (INC) and cash flow for operation (CFOP) still maintained a negative minimum. This overall outcome reveals that the dataset for this study is very reliable. These outcomes also reveal the struggle among non-financial firms to survive the shock caused by the 2008/2009 global financial crisis that impacted the Nigerian financial sector so much. Thus, they could offer reasonable market and accounting information to prospective investors about the sampled firms. Furthermore, the variables in consideration are positively skewed and above the mean, indicating that the mass of the distribution for each of the variables is concentrated to the right. Similarly, the kurtosis reveals that all the variables of the study are leptokurtic, being above 3, as suggested by economic theory (Zhiqiang et al., 2008). This implies that the data for the various variables has a high frequency of outliers.

## 4.3: Correlation Test

Table 2 presents the result of the correlation test used to check the level and nature of the relationship between the dependent variable and each of the explanatory variables. It could also give a clue to the nature of relationships among the explanatory variables; this will help identify where outliers are present, which could result in issues of multi-collinearity. Notwithstanding, the major goal of this test is to ascertain the level or nature of the relationship between the dependent and explanatory variables.

**Table 2: Correlation Result**

Correlation Probability	SR	DPS	INC	CFOP
SR	1.000000 -----			
DPS	-0.008127 0.8242	1.000000 -----		
INC	0.020417 0.5767	0.251998 0.0000	1.000000 -----	
CFOP	0.013061 0.7210	0.297910 0.0000	0.937367 0.0000	1.000000 -----

**Source: Authors Computation (2023)**

Thus, the study finds a very weak and positive correlation between SR and INC, and CFOP, while a very weak and negative correlation is observed between SR and DPS. According to the correlation result contained in Table 2, the correlation coefficient between SR and DPS is -0.008127; between SR, INC is 0.020417 between SR and CFOP is 0.013061. In light of the correlation among the explanatory variables, there is room to suspect outliers. However, a more definite test peculiar to multi-collinearity (the VIF test) will be explored for a more reliable outcome.

#### 4.4: Variance Inflation Factor (VIF)

Table 3 presents the result of the VIF test for the current study for the purpose of investigating if or not multi-collinearity exists among the interest explanatory variables used in this study. The result displayed in the table is for both centred and uncentered VIF. The centred VIF considers the lower limit, whereas the uncentered VIF considers the extreme case, or upper limit.

**Table 3: VIF result**

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
DPS	1.230339	3.166143	3.000704
INC	6.18E-15	9.413148	8.584207
CFOP	4.62E-14	9.029514	8.581156
C	14.86489	1.470745	NA

**Source: Authors Computation (2023)**

The results according to Table 3 indicate that the VIF values are less than 10 although the CFOP and INC are higher up to 9 but equally less than 10, there is no reason to suspect the presence of outliers. Thus, to be on the safe side, the research will adopt a more robust estimation method that has the potential to resolve issues of cross-sectional dependence.



#### 4.5: Cross Sectional Dependence Test

Table 4 presents the result of the cross-sectional dependence test used to check if there is the possibility of shock transfer among the sample firms in the study. Normally, when entities in a cross-section have a strong correlation, there are chances that a shock in one will be transmitted to the others, *ceteris paribus* (Agubata et al., 2022).

**Table 4: Result of Cross Sectional Dependence (CSD) test**

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	4224.470	2775	0.0000
Pesaran scaled LM	18.44967		0.0000
Pesaran CD	15.81926		0.0000

**Source: Authors Computation (2023)**

Thus, a check for such a relationship becomes necessary. The CSD test result, which is unique to the current study because the cross is greater than the period as proposed by theory, reveals that there is significant cross-sectional dependence in the panel cross-section of this study. Thus, to resolve this problem, a higher method of estimation is adopted; this method has the capacity to offset the problem of CSD in the model.

#### 4.6: Test of Hypotheses

The three hypotheses formulated for this study is tested using quantile regression analysis. The quantile regression result as presented in table 5 below is used because the data for the panel cross section showed significant, and this cross sectional dependence necessitated the application of panel quantile regression for the estimation of the proposed model and for the testing of the hypothesis stated in the study. This is because quantile regression has the potential to address cross-sectional issues and still produce a robust result.

**Table 5: Quantile regression Result**

Variables	Panel Method of Quantile Regression								
	Lower Quantile			Middle Quantile			Upper Quantile		
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
<b>DPS</b>	-0.702 (0.305)	-1.506 (0.273)	-1.853 (0.000)	-2.081 (0.000)	-2.409 (0.000)	-2.728 (0.000)	-2.924 (0.000)	-2.957 (0.000)	-4.117 (0.002)
<b>CFOP</b>	-2.999 (0.076)	-0.955 (0.543)	-0.073 (0.962)	0.316 (0.802)	0.444 (0.734)	-1.285 (0.332)	3.110 (0.073)	7.222 (0.028)	10.566 (0.060)
<b>INC</b>	0.376 (0.823)	-0.405 (0.793)	-0.810 (0.617)	-0.555 (0.693)	-0.191 (0.897)	-0.396 (0.787)	-0.759 (0.686)	-1.545 (0.712)	-4.305 (0.500)
<b>C</b>	-0.404 (0.975)	-5.642 (0.668)	-4.853 (0.702)	-4.852 (0.669)	-4.332 (0.726)	-10.005 (0.444)	-22.238 (0.153)	-46.755 (0.109)	-13.902 (0.814)

**Source:** Author Computation. **Note:** the figures in bracket are the probability values

**H<sub>01</sub>: Dividend per Share has no significant effect on stock Return of quoted non-financial firms in Nigeria**

According to the quantile regression result in Table 5, dividend per share (DPS) has a significant deteriorating effect on stock return (SR) of non-financial firms in Nigeria. This outcome is true across the various quantiles except for Q1 and Q2, at the 5% level of significance. This warrants the rejection of the null hypothesis for the various quantiles, except for Q1 and Q2. Thus, when DPS is increased by one unit, the SR will fall commensurately. The coefficient values indicate the magnitude of the change in SR resulting from the change in DPS for the various quantiles. This portent suggests that DPS offers reasonable accounting information to the public about the performance of non-financial firms in Nigeria; however, the nature of the accounting information that it projects about these firms could dissuade prospective investors. It is noteworthy that DPS is the amount paid to investors as profit for the share at the close of the financial year, after deducting a reasonable amount to be reinvested (as retained earnings). Besides, not all investors may qualify to receive DPS for a particular accounting year. Thus, relying on this alone may not give the public the maximum accounting information about the true performance of the firms; thus, it should be judged alongside other accounting information. Contrary to this study's finding, Okoro, & Ibanichuka (2020), Fama & French (1988) hold the view that DPS has the potential to predict the future stock return, whereas Ewereoke (2016), Arslan & Zaman (2014) support the current finding.

### **H<sub>02</sub>: Operational Cash Flow has no significant effect on stock Return of quoted non-financial firms in Nigeria**

The regression results in Table 5 show that operational cash flow (CFOP) has a negative and insignificant effect on stock return (SR) of firms within the first, second, third, and sixth quantiles (Q1, Q2, Q3, Q6) at the 5% level of significance. However, operational cash flow for firms within the Q4, Q5, Q7, Q8, and Q9 has a positive effect on stock return, but at the 5% level, a significant effect was noticed only in the Q8. As a result, the null hypothesis for all quantiles except Q8 is rejected. The implication here is that raising the CFOP by a unit will leave the SR the same for firms within the various quantiles except for those within Q8, where a 7.222% change in SR is witnessed. Supporting this finding partly are Kasmiasi & Santosa (2019) and Kipngetch et al. (2021), who found that CFOP exerts a positive and significant effect on SR. A similar result was arrived at by Jansen (2021), who opined that cash flow growth improves stock return and that the effect of cash flow growth on SR is greater than that of investment cash flow. The results of Trisnawati and Wahidawati (2013) also showed a positive relationship between operating cash flow and stock returns. In contrast, Moradzade, Fard, Rezapoor, and Frzani (2010) indicated insignificant relationship. There seems to be a paucity of literature that has had a negative effect on SR from CFOP. However, this outcome should inform the public to look out for the performance of operating cash flow among the non-financial firms in Nigeria when making decisions on which to invest in. This is valid as a firm that lacks the ability to manage its cash for operations activities has issues with managerial inefficiency. The above assertions are based on the firms within Q8 and are in line with expectations based on theory and existing findings. But in general, based on the findings of this study, CFOP does not have a statistically significant effect on the SR of non-financial firms in Nigeria.

### **H<sub>03</sub>: Invested capital has no significant effect on stock Return of quoted non-financial firms in Nigeria**

According to the regression result in Table 5, invested capital (INC) has a negative and negligible impact on the stock return (SR) of non-financial firms in Nigeria. This is true for the entire quantile except in the ninth quantile (Q9), where there is an exact 5% significance. Thus, it can be said that only firms within the Q9 have their invested capital significantly deteriorating the stock return. On the basis of the outcome, the null hypothesis is rejected. This goes to imply that an increase in INC by one unit will leave the SR of non-financial firms in Nigeria the same, all things being equal. As a result, the public can't rely on the information from invested capital to judge the performance of these firms as a guide in making investment decisions or otherwise. However, it may offer useful accounting information as to how efficient the firms are in allocating their resources for investment purposes. Furthermore, institutional owners who have a high stake in the firm (in terms of share size) may rely on the outcome of the invested capital to judge efficient management; this will enable them to replace inefficient managers with more efficient ones since profitability is their key interest in the organisation. The result therefore portends that the sample firms are generally inefficient in allocating their investment capital, and this can be traced to possible inefficiency on the part of the management. Titman et al. (2004), who have similar findings, stated that companies that significantly raise their capital expenditures eventually see their benchmark-adjusted returns decline. Harjito and Aryayoga (2009), Setiyorini (2011), and Arista and Astohar (2012) support the finding of the study, whereas Sunardi (2010), Heriani (2011), and Hatta and Dwiyanto (2012) reveal the positive and insignificant effect on stock returns. The negative abnormal capital investment/return

relationship is demonstrated to be larger for companies with greater investment discretion, i.e., companies with higher cash flows and lower debt ratios, and is demonstrated to be meaningful only during eras when hostile acquisitions were less common.

#### **4.0 Summary of Findings and Recommendation**

##### **4.1 Summary of Findings**

Based on a sample of 75 non-financial quoted firms on Nigerian exchange group for ten fiscal years from 2012 to 2021, using panel quantile regression for the estimation, the following are the specific findings of the study based on the result of the analyses using 5% level of significant

1. Dividend per share has negative and significant effect on stock returns of quoted non-financial firms in Nigeria
2. Operational cash flow has positive but non-significant effect on stock returns of quoted non-financial firms in Nigeria
3. Invested capital has negative but non-significant effect on stock returns of quoted non-financial firms in Nigeria

##### **4.2 Recommendation**

In light of the findings of this study, the following recommendations are offered:

1. Non-financial firms should find a way to enlighten their investors on the importance of dividend for better investment decisions. There is a need to improve the performance of dividend per share among the sample firms. Besides, economics and market factors may result in no declaration of the entire profit, such as those retained and reinvested. As such, the public should not rely solely on this variable to inform them about the performance of the sampled firms.
2. The management of the non-financial firms should review and improve their cash flow from operational activities since it influences the investor's decision making.
3. Management of the sampled firms should review their investment portfolio and invest in the most profitable businesses, as this will help improve the firm's returns, give positive accounting information to the public, and attract more investors.

#### **Reference**

- Abiodun, B. Y. (2012). Significance of Accounting Information on Corporate Values *International Journal of Accounting*. 1(2), 105–113.
- Abubakar, S. (2012). Value Relevance of Accounting Information of Listed New Economy Firms in Nigeria: An Empirical Investigation Using Ohlson Model. *Journal of Management and Enterprise Development* 7(2), 65-72.
- Ali, A. (2017). The stock price valuation of earnings per share and book value: Evidence from Tunisian firm. *Journal of Internet Banking and Commerce*, 22(1), 1-11.
- Anwaar, M. (2016). Impact of firms' performance on stock returns; evidence from listed companies of FTSE-100 index London, UK. *Global Journal of Management and Business Research: D Accounting and Auditing*, 16(1), 31-39.

- Apete, C., Udeh, F.N., & Ezekwesili, T.P. (2022). Value relevance of accounting information and share price of listed manufacturing companies in Nigeria. *Research Journal of Management Practice* | ISSN: 2782-7674 Vol. 2, Issue 1 (January, 2022) | [www.ijaar.org](http://www.ijaar.org)
- Arslan M. & Zaman R. (2014) Impact of Dividend Yield and Price Earnings Ratio on Stock Returns: A Study Non-Financial listed Firms of Pakistan. *Research Journal of Finance and Accounting*, 5(19).
- Azar, N. Zakaria, Z & Sulaiman, N.A. (2019). The Quality of Accounting Information: Relevance or Value-Relevance? *Asian Journal of Accounting Perspectives*, 12(1), 1-21 DOI: 10.22452/AJAP.vol12no1.
- Babalola, A. Y. (2012). Significance of Accounting Information on Corporate Value of Firms in Nigeria. *Journal in Organization Psychology and Education Studies*, 1(2), 105-113.
- Babatunde, A.A. & Akeju, J.B. (2016). The Impact of Corporate Governance on Firms' Profitability in Nigeria. *International Journal of Business and Management Invention*, 5 (8), 1-5
- Berggren, S., & Bergqvist, A. (2014). *Capital structure and stock returns-a study of the Swedish large cap companies*. Unpublished Bachelor Thesis, University of Gothenburg.
- Dhiaa, S., & Ibrahim, K.A. (2016). Company's characteristics and accounting information relevance. *Universal Journal of Accounting and Finance* 4(3), 107-116, 2016.
- Dong, M., Robinson, C., & Veld, C. (2005). Why individual investors want dividends. *Journal of Corporate Finance*, 1 (12), 121-158.
- Elechi, O.O., Ogbonnaya, I.O., Nwogu, J. & Nwambeke G.C. (2022). Effect of Value Relevance of Accounting Information on Stock Market Volatility in Nigeria: Application of EGARCH model. *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 24, Issue 5. Ser. V (May. 2022), PP 59-69 www.iosrjournals.org. DOI: 10.9790/487X-2405055969 www.iosrjournals.org 59 |*
- Ewereoke, V.N. (2018). Value relevance of accounting information in a transitional economy: the case of Nigeria stock market. *Gojamss Journal*. <http://www.gojamss.net>
- Fama, E., & French, K. (1992). The Cross-Section of Expected Stock Returns. *Journal of Finance*, 47, 427-465.
- Gordon, E. A., Henry, E., Jorgensen, B. N., & Linthicum, C. L. (2017). Flexibility in cash-flow classification under IFRS: Determinants and consequences. *Review of Accounting Studies*, 22(2), 839-872.
- Gupta, R., & Modise, M. P. (2013). Does the source of oil price shocks matter for South African stock returns? A structural VAR approach. *Energy Economics Journal*, 40(C), 825-831.



- Kalama, K. D. (2013). The relationship between earnings and share prices of firms listed at the Nairobi stock exchange. *Unpublished MBA Project*, University of Nairobi.
- Kasmiati, M & Santosa, P. W. (2019) The effect of earning information, cash flow components, and financing decision on stock returns: empirical evidence on Indonesia stock exchange. *Journal of Economics, Business, & Accountancy Ventura*, 22(2), 157-166. <http://dx.doi.org/10.14414/jebav.v22i2.1638>
- Khanagha, J. B. (2011). International Financial Reporting Standards (IFRS) and Value Relevance of Accounting Information: Evidence from Bahrain and United Arab Emirates Stock Markets, *African Journal of Social Sciences* 1(1), 101-114.
- Khanna, M. (2014). Value Relevance of Accounting Information: An Empirical Study of Selected Indian Firms. *International Journal of Scientific and Research Publications*, Volume 4, Issue 10, October 2014 1 ISSN 2250-3153 [www.ijsrp.org](http://www.ijsrp.org)
- Liafisu, S.Y., Temile, S. O. & Enaruna, D. V. (2022). The value relevance of the quality of IFRS-based published financial information of non-financial companies in Nigeria. *Journal of Accounting and Taxation*. DOI: 10.5897/JAT2021.0516. <http://www.aicjournals.org/JAT>
- Muhammad, A. & Waqar, A. (2016). Impact of Accounting Information on Share Price: Empirical Evidence from Pakistan Stock Exchange. MS. Muhammad Ali Jinnah University Karachi, Pakistan. *Journal of International Finance and Banking*. doi: 10.5296/ifb.v3i1.9323 URL:
- Ngoc, P & Manh, O. (2017). Emerging Equity market volatility, An Empirical investigation of markets in Kenya and Nigeria. *Journal of African School* 4(2): 45 – 50.
- [Ogbodo, O.C., & Osisioma, B. \(2020\). Value relevance of accounting information and share price: An empirical study on manufacturing firms in Nigeria. Doi: 10.46654/ij.24889849.s2122](https://doi.org/10.46654/ij.24889849.s2122)
- Ohlson, J., 1995. Earnings, book values, and dividends in security valuation. *Contemporary Accounting Research*, 11(2), pp. 661-687.
- Okoro, I. & Ibanichuka, E.A.L. (2020). Accounting Information and Market Value of Quoted Manufacturing Firms: Panel Data Evidence from Nigeria. *American Finance & Banking Review*; Vol. 5, No. 1; 2020 ISSN 2576-1226 E-ISSN 2576-1234
- Ordu M. M., Enekwe, C.I., & Anyanwaokoro, M. (2014). Effect of dividend payment on the market price of shares: A study of quoted firms in Nigeria. *IOSR Journal of Economics and Finance*, 5,(4). 49-62.
- Osuala, A., Ugwumba, C., & Osuji, I. (2012). Financial statements content and investment decisions of selected quoted companies in Nigeria. *Trans campus Journal* 10(2).
- Oyerinde, D.T. (2011). *Investigated the value relevance of accounting information in the Nigerian stock market*. A thesis in the department of accounting, submitted to the school of postgraduate studies, Covenant University, Ota, Nigeria

- Perera, R., & Thrikawala, S. (2010). *An empirical study of the relevance of accounting information on investor's decisions*. ICBI.
- Rahmawati, F. I., & Handayani, S. R. (2017). The influence of good corporate governance practice on the stock price (Study on Company of LQ45 Index in Indonesia stock exchange during 2012-2016). *Business Administration*, 50 (6), 164-173.
- Sadiq, M., Mohamad, S., & Kwong, W. C. G. (2019). Do CEO Incentives mediate the relationship between political influences and financial reporting quality? *International Journal of Asian Social Science*, 9(3), 276-284.
- Saeedi, M., Abessi, O., Sharifi, F., & Meraji, H. (2010). Development of groundwater quality index. *Environmental Monitoring and Assessment*, 163(1), 327-335.
- Tan, P. P., Galagedera, D. U., & Maharaj, E. A. (2012). A wavelet based investigation of long memory in stock returns. *Physica A: Statistical Mechanics and its Applications*, 391(7), 2330-2341.
- Utami, R. S. & Noraya. S. (2010). Significance of accounting information in explaining Market and book values: the case of Indonesian banks. *International Research Journal of Finance and Economics*
- Utomo, D., Pamungkas, I. D., & Machmuddah, Z. (2018). The moderating effects of managerial ownership on accounting conservatism and quality of earnings. *Academy of Accounting and Financial Studies Journal*, 22(6), 1-11.
- Yilmaz, AK & Gulay, G. (2006) Dividend policies and price-volume reactions to cash dividends on the stock market: Evidence from the Istanbul Stock Exchange, *Emerging Markets Finance and Trade*, 42(4), 19-49.
- Yusuf, O.M.; Akpan, E.O.; Iriabije, E.U.; & Yusuf, M.S. (2021). Value Relevance of Accounting Information and Share Price: Moderating Influence of Corporate Governance Practice of Listed Firm in the Nigerian Stock Exchange (NSE). *African Scholar Journal of Mgt. Science and Entrepreneurship (JMSE-7)*