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RESEARCH ARTICLE

INTERNAL CONTROL SYSTEM AND FINANCIAL PERFORMANCE OF MANUFACTURING COMPANIES LISTED IN NIGERIA

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ABSTRACT

Manufacturing companies in Nigeria has witnessed poor financial performance, subsequent failure and liquidation which can be traced to weak internal control system, internal fraud, and non-compliance with corporate governance standard, lack of transparency, creative accounting and insider trading. The financial performance of manufacturing companies has been called to question on several occasions. The study examined the effect of internal control system on financial performance of manufacturing companies listed in Nigeria. The study employed *ex-post facto* research design, a target population of forty-three (43) manufacturing companies quoted on Nigerian Stock Exchange was used and a sample of fifteen (15) companies was selected from the population. The data was gathered from audited financial reports of the sample manufacturing firms for a period of ten (10) years. The study employed descriptive method of analysis to describe the data while inferential statistics such as multiple linear regression technique was used to test the hypotheses using Stata software. Inferences were made at 10% level of significance. The study showed that Risk management has significant and positive effect on financial performance of manufacturing companies listed in Nigeria giving the F-statistics value of 7.212 with probability value of 0.000 and Adjusted r^2 of 0.151. Hence the null hypothesis of no significant effect is rejected. Board independence have statistical impact on financial performance with F-statistics value of 5.441 with probability value of 0.000 and Adjusted r^2 of 0.113. Hence the null hypothesis of no significant effect is rejected. From the findings of the study, the study concluded that manufacturing companies that had invested on effective internal control systems have more improved financial performance as compared to those with a weak internal control system. The following recommendations were made based on the outcome of the study: Management should develop a mechanism to incorporate relevant feedback from the various stakeholders into their internal control system and Board of Directors of manufacturing firms should ensure that the internal control systems recommended by both internal and external auditors are periodically monitored and evaluated.

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INTRODUCTION

Financial performance is an indication of how efficient an organization can generate income using the capital accessible in the market. A firm's financial performance reflects its capability to make profit from all its business lines which is evidenced by consistent growth in earnings. In an aggressive marketplace, a firm needs to determine how to attain an optimal level of financial position, which comprises defining the result of firms' policies and operations in monetary terms (Babalola, 2015). Financial performance is a measure of the profitability position of an organization which is the difference between revenue generated from the sale of output and the full opportunity cost of factor used in the production of that output (Siddikin, 2017).

Financial performance is the potential of a firm to be financially successful, the ability of an investment to make profit or the state or condition of yielding a financial profit or gain. However, profit could either be normal or supernormal. Normal profit is that minimum amount of profit which a firm must acquire in order to induce the firm to remain in operation. Similarly, Brealey, Myers and Marcus (2014) posited that the strength of financial performance of an organization is measured through profitability. Basically, the issue of financial performance is a continuous issue that a company has to consistently make, because it is essentially concerned with the level of turnover that must be achieved in order to cover costs and make surplus. In developed economies, the manufacturing sector is viewed as a leading edge of modernization and skilled job creation as well as a fundamental source of positive spillovers (Tybout, 2017).

Manyika (2016) emphasized that in developed economies such as the United State of America and China, the manufacturing sector remains critically important as it remains a vital source of innovation and competitiveness thereby contributing immensely to the gross domestic product, exports and productivity growth. Also, Tybout (2017) stated that manufacturing companies in China contributes twenty-seven (27) percent of China's overall national output which account for twenty (20) percent of the world's manufacturing output. Thus, the financial performance of manufacturing companies is of vital importance since manufacturing firms stimulate entrepreneurial growth. In developing economies, Landry (2018) stated that manufacturing firms in developing economies such as Ethiopia, Morocco, Malaysia and Turkey contribute significantly to the accumulation of physical and human capital. The author further argued that in macroeconomic terms, a strong manufacturing sector enhances a country's external account balances by decreasing imports and diversifying exports, thereby increasing resilience to external shocks as compared to reliance on primary commodities. Furthermore, Handania (2017) noted that manufacturing companies plays a prominent role in economic growth of developing countries by accelerating robust and inclusive growth.

Considering the Nigerian economy, Oyedokun, Tomomewo and Owolabi (2019) opined that quite a good number of manufacturing companies in Nigeria have ceased to operate, and more prominent companies have acquired many or at best, merged with other more prominent manufacturing companies. Few manufacturing companies that are still operating within the Nigeria market have resulted in performing at a sub-optimal level due to managerial inefficiencies, internal control failures, fraud and weak corporate governance system. Similarly, Abdul and Isiaka (2015) noted that the growth of the manufacturing sector in Nigeria has been stagnant over the years due institutional challenges caused by internal control lapses, managerial inefficiencies, fraudulent activities and high-profile corporate accounting scandals. Internal control is an integrated system within an organization which aims to increase operational efficiency and productive activities. Therefore, internal control system ensures that all activities carried out within an organization is in compliance with all legislations. Internal control systems are critical for the corporation to achieve their long-term goals. The control system helps organizations to predict possible issues that may result in financial losses and thus deter future incidents. Owusu-Boateng, Amofa, and Owusu (2017) noted that internal control in manufacturing sector primarily focuses on the assumption that a functional system of internal controls can avoid financial losses. The problem of poor financial performance in Nigeria manufacturing sector is growing at an alarming rate due to internal control lapses, principally because the major perpetrators are internal staff and some corrupt members of the top management, this fact was also supported by the study of Omoniyi and Akinselure (2016) who stated that no fraud will be successful without the input of management employees. Moreover, corporate ethics which is a key component of internal control system is not adhered to in Nigeria. For instance, in the case of Cadbury Nigeria, the Board failed to obey the provisions of the code of corporate governance and the internal control framework. The chief executive officer (CEO), finance executive and other executive director were paid offshore remuneration without the authorization of the remuneration committee and not recorded

in the company's financial report and account. Also, according to CAMA section 359, every company should establish an audit committee with not more than one executive in the committee. However, the audit committee of Cadbury Nigeria consisted of three (3) executive directors. This indicates that the company failed to comply with the internal control framework and corporate governance guidelines. Thereafter, the managing director and chief financial officer of Cadbury Nigeria were dismissed in 2006 for inflating the profits of the company for some years before the company's foreign partner acquired controlling interest. These scandals emphasize the need to review, evaluate, scrutinize, and formulate systems of checks and balances to guide corporate executives in their decision-making. These executives are legally and morally obliged to produce honest, reliable, accurate and informative corporate financial reports periodically (Eke, 2018). Therefore, the collapse of organizations like Enron, WorldCom, Cadbury, Lever brother (now Unilever) and NAFCON have raised concerns about the relevance and importance of internal control, especially as it affects the financial performance of firms. Furthermore, empirical studies such as Kinyua (2016); Kiabel (2017); Nyakundi, Nyamita and Tinaga (2014); Njeri (2014); Ejoh and Ejom (2014); Etengu and Amony (2016) focused attention majorly on the consumer good sectors while neglecting the health care and industrial good sectors. Therefore, there is a need for an up to date research on the effect of internal control system on financial performance of manufacturing companies listed in Nigeria.

Objectives of the Study: Determine the effect of risk management on the financial performance of manufacturing companies listed in Nigeria. Examine the effect of Board independence on the financial performance of manufacturing companies listed in Nigeria.

Research Questions: What is the effect of risk management on the financial performance of manufacturing companies listed in Nigeria?

How does Board independence affect the financial performance of manufacturing companies listed in Nigeria?

Research Hypotheses

H₀₁: Risk management has no significant effect on the financial performance of manufacturing companies listed in Nigeria.

H₀₂: There is no significant effect of Board independence on the financial performance of manufacturing companies listed in Nigeria.

Literature Review

Internal Control System: Internal control system can be defined as a set of mechanism designed to motivate an individual or a group towards achievement of a desired objectives. Cahill (2016) defined internal control as a system of internal administrative efficiency which often leads to design of a system that will enhance financial check and balance which will support corrective actions intended by the management of the organization and will ensure that the primary goal of the organization is achieved. Similarly, OECD (2015) noted that internal control systems are control developed by organizations to generate transparency and curb

fraudulent activities in the organization. International Standard on Auditing (ISA 400) defines internal control as all policies and procedure adopted by the management of an entity to assist in achieving the primary objectives of the management by ensuring that the business is conducted in the most efficient way possible and also ensuring strict adherence to management policies, safeguarding of asset, prevention and detection of fraud and timely preparation of reliable account records. In addition, Doyrangol (2017) argued that internal control system encompass all measures and procedures employed by a firm which assist in the exploration of appropriate activities in compliance with specific policies institutionalized by the Board members and the management of such firms. A contemporary definition of internal control is that given by the Committee of Sponsoring Organization Commission (COSO). COSO (2014) defined internal control as a process effected by those charged with governance, management and other employees to provide reasonable assurance regarding the achievement of an entity's objectives in the areas of efficiency and reliability of financial information or reports, and compliance with legal and regulatory requirements. Arens, Elder and Beasley (2016) argued that a system of internal control consists of policies and procedures designed to provide management with reasonable assurance that the company achieves its objectives and goals. However, Osuagwu (2014) separates internal controls into those that are general (entity-wide) controls from those that are specific (account-level) controls. The author believes that if management was overriding control features in order to manage earnings, then one would expect to find more internal control weaknesses related to general controls, even if the specific (account-level) controls are effective.

Owusu-Boateng, Amofa and Owusu (2017) conceptualized internal control system as a procedure of accounting planned in ensuring efficient safeguard of assets or implementing a policy that will avoid fraud and error in the management of organizational processes and values. Internal control system is a critical part of administrating an organization as it entails the plans, methods, and procedures used to meet an organization's vision, mission, goals and objectives; and by acting in that way, sustain performance based executive. Similarly, Muhun and Jagongo (2018) emphasized that internal control assists managers to achieve required results through effective management of resources. Hammed (2018) explained that internal control is a systematic way of carrying out organization's activities and procedures, within specified company rules and regulations for the overall success of the enterprise. According to Whittington (2017), internal controls span beyond issues relating to bookkeeping and production of financial reports. He further noted that internal controls can be regarded as organized procedures that lead to evaluation of the level of pre-determined objectives in relation with the actual results of the company. According to Mawanda (2018), organizations' commitment to adhering to internal controls results in better performance unlike organizations that lack commitment to internal controls. Internal control deals with the organizations' compliance with regulations and financial reporting standards. Rittenberg (2015) highlighted benefits of effective internal control which includes detecting error and fraud, minimizing illegal activities and enhancing quality data and financial reporting.

According to COSO Internal Control Integrated Framework (2014), there are five key elements of internal control system

which include control environment, analysis of risk, control of activities, communication of information, and systematic review of internal control elements. Control environment influences the degree of success of the other four elements. Thus, control environment constitute employees behavior and morals, upholding professionalism, participation, organization structure, style of management, authorization and human personnel policies. Kakucha (2014) agrees that without solid control environment, the other components of internal controls become ineffective. On the other hand, risk assessment analyses the factors that might hinder the attainment company objectives. It comprises of information for identifying risks of material misstatement, risk analysis and evaluation, analyzing procedures performed on both financial data and non-financial data, observation and inspection methods and documentation of risks. Eke (2018) defines control activities as guidelines and methods that enable appropriate responses are initiated in case the organization is facing risks. The control activities encompass operational controls, financial information controls and compliance controls. Operational controls comprises of separation of duties, proper duty specification on handling transactions, documentation and records, control over properties and supervising of performance. Information and communication ensures that information flows throughout the organization. The flow of information should be adequate, sufficiently detailed, explicit, accurate and up to date in an upward direction, as part of a routine management information system. The exchange of information allows personnel carry out activities in a coordinated fashion. Monitoring, according to Bowrin (2014) can be ensured by periodically independently checking and observing customer complaints, responses, periodical audits carried out by internal auditors. Thus, monitoring is a vital activity in an organization which ensures the effectiveness of all other internal control components.

Financial Performance: A firm's financial performance reflects its capability to make profit from all its business lines. This is an indication of how efficient the administration can generate incomes using the capital accessible in the market. Growth in earnings is said to be the key aim of every firm. In an aggressive marketplace, a firm needs to determine how to attain an acceptable level of productivity, which comprises of defining which parts of monetary policies are functioning and which ones require upgrading (Babalola, 2015). Financial performance measures the extent of achievements by organizations, which could reflect a good result for certain periods and otherwise for other periods (Batchimeg, 2017). One of the main aim for measuring the achievements of organizations is to obtain useful information related to flow of fund, the use of fund, effectiveness and efficiency in the utilization of the funds. This information also motivates managers to make good informed decisions (Amal, Sameer, & Yahya, 2012). According to Siddikin (2017), profit means the difference between revenue generated from the sale of output and the full opportunity cost of factor used in the production of that output. Financial performance is the potential of a firm to be financially successful, the ability of an investment to make profit or the state or condition of yielding a financial profit or gain. However, profit could either be normal or supernormal. Normal profit is that minimum amount of profit which a firm must acquire in order to induce the firm to remain in operation.

Basically, the issue of financial performance is a continuous issue that a company has to consistently make, because it is

essentially concerned with the level of turnover that must be achieved in order to cover costs and make surplus. According to Babalola (2015), the strength of financial position of an organization is measured through profitability. Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account. In financial analysis, ratios are used as a benchmark for evaluating the financial position and performance of a firm. Similarly, Brealey, Myers and Marcus (2014) posit that financial performance can be measured through ratio analysis, breakeven analysis, marginal analysis, cost control or through financial control.

Theoretical Review

Agency Theory: Agency theory was first proposed by Stephen Ross and Barry Mitnick independently but at the same time in 1973. Agency theory explains how best to organize relationships in which one party (principal) determines the work which another party (agent) undertakes. The theory argues that given incomplete information and uncertainty, which characterise many businesses, there are two agency problems: (1) the problem of adverse selection and (2) the problem of moral hazard. Under adverse selection, the principal cannot be sure that the agent's representation of him, for which the agent receives payment, is accurate. Moral hazard on the other hand is the condition under which the principal cannot be sure whether the agent has put forth maximal effort. A critical look at the set-up of internal control system will reveal that it is centred on the agency problem which is as a result of the separation of management and ownership (Simanjuntak, 2001). The theory argues that in the modern corporation, in which ownership is widely held by individual shareholders, managerial actions are not just those of maximizing shareholder returns. This theory which had been in existence was applied to directors and Boards from the 1980s. Inherent in the theory is the belief that people would rather act in their own self-interest than in the interest of others. The Agency theory presents as a contract, the interaction between directors and stakeholders (including shareholders). The directors act as agents of the stakeholders, making decisions in their own interest and being subject to transaction costs for the checks and balances necessary to reduce non-compliance over enforcement costs (Simanjuntak, 2001).

The theory assumes a contractual agreement between the principal and agent for a limited or unlimited future period, where the future is uncertain. The theory assumes that contracting can eliminate the agency problem, but practically it faces many hindrances like information asymmetry, rationality, fraud and transaction cost. Shareholders' interest in the firm is only to maximize their return, but their role is limited in the firm. The conflict between the owners and creditors arise due to the projects undertaken and the financing decision taken by the shareholders. The shareholders try to invest in the risky projects, where they expect higher return. The risk involved in the projects raise the cost of the finance and decreases the value of the outstanding debt, which affects the creditors. If the project is successful, then the owners will enjoy the huge profits, while the interest of the creditors is limited as they get only a fixed rate of interest.

On the other hand, if the project fails, then the creditors will be enforced to share some of the losses and generally this problem persists in these kinds of circumstances (Simanjuntak, 2001). The underlying assumption of this type of agency problem is the conflict of interest between the major and minor owners. Major owners are termed as a person or group of persons holding the majority of the shares of a firm, while minor owners are those persons holding a lesser portion of the firm's share. The major shareholders have higher voting power and can take any decision in favour of their benefit, which hampers the interests of the minor shareholders. This kind of agency problem prevails in a country or company, where the ownership is concentrated in the hands of few persons or with the family owners, then the minority shareholders find it difficult to protect their interests or wealth (Pan, 2013). In support of the agency theory, Pan (2013) noted that agency theory deals with the ownership structure of a firm. That is, the mechanism that helps firm managers align their interests with the interests of the owners and controlling the mechanism so that they work in aligning the principal's interests to the agent's. This is seen in the form of the firm's Board structure, rules on strategy-setting and strategic decision-making processes, reporting and controlling mechanisms, and the management of risk, which are indispensable in managing businesses. Others are the selection and remuneration of Board members and executives which serve to control the behaviour of the agent, bringing it in line with the principal's interests.

Phan and Tran (2013) criticized that positivist agency researchers have only concentrated on the agent side of the 'principal and agent problem' and opined that the problem may also happen from the principal side. He observed that this theory is unconcerned about the principals, who deceive, shirk and exploit the agents. Furthermore, he added that the agents are unknowingly dragged into work with the perilous working environment and without any scope for encroachment, where principals act as opportunist. He believed in another way that humans are noble and work ethically for the betterment of the firm. In relations to this study, agency theory provides the mechanism that helps firm managers align their interests with the interests of the owners and putting in place effective internal control system so that the management work in aligning the principal's interests to the agent's.

Stewardship Theory: The stewardship theory was propounded by Davis, Schoorman, and Donaldson in 1997 and it is based on the assumption that the manager is a steward of the business with behaviors and objectives consistent with those of the owners. Stewardship theory recognizes the need for executives to act more autonomously to maximize the shareholders returns. Consequently, managers require authority and desire recognition from peers and bosses to effectively perform their tasks. Unlike agency theory, stewardship theory emphasizes the role of top management as stewards because they are expected to integrate their goals as part of the organization. The theory suggests that the firm's purpose is to contribute to humanity by serving customers, employees and the community. At the centre of the theory's foundation is the concept that the business is here to serve rather than produce a profit. However, to be able to serve, the firm must be able to sustain itself economically and this theory promotes efficient use of resources through working with stakeholders. It views profits as necessary and an important funding mechanism to the primary objective of meeting the service-oriented mission.

Stewardship theory assumes that the managers or executives of a company are stewards of the owners, and both groups share common goals. Therefore, the Board should not be too controlling, as agency theories would suggest. The Board should play a supportive role by empowering executives and, in turn, increase the potential for higher performance (Shen, 2003). Stewardship theory explains that managers, left on their own, will indeed act as responsible stewards of the assets they control. Stewardship theory assumes that the executive-agents are stewards motivated to act in the best interests of their principals. Also, steward behaviour will not depart from interests of his organization and is organizationally centered. A steward will not substitute or trade self-serving behavior for cooperative behavior, even if interests of agent and principal is not aligned and there is greater utility in cooperative behavior. Some assumptions of stewardship theory states that people who are motivated by higher order needs and are motivated by intrinsic factors, are more likely to become stewards. Also, people using personal power for influencing others, people in involvement-oriented situation, people in collectivist culture and people in low power distance culture, are more likely to become stewards. If stewardship relationship exists, potential performance of a firm is maximized. If mutual agency relationship exists, potential agency costs of the firm are minimized (Davies, 2013). In support of the stewardship theory, Daily (2013) argued that executives and directors are inclined to protect their reputations by ensuring that their organizations are properly operated to maximize financial performance. Managers are likely to maximize investors profit and to establish a good reputation to enable them retain their positions. Consequently, stewardship theory advocates unifying the role of the CEO and the chairman to reduce agency costs (Abdullah & Valentine 2015).

Van Slyke (2006) criticized the stewardship theory on the ground that that more transaction cost outlays would be made as there would be more investment of time for the principal in involving the steward in resolving problems, joint decision-making and information exchange. The theory is also criticized on the basis that it gives directors superior power when it comes to exercising their discretion, but it must be acknowledged that Boards are constrained by a number of factors such as the availability of an appropriate workforce, the demand for the products of the company and the cost and availability of finance (Blair and Stout 2001). In relations to this study, stewardship provides the link between management as stewards and shareholders as principal. Therefore, the management was act solely as stewards in the interest of the shareholders.

Theoretical Framework: This research reviewed two theories in the literature which includes; agency theory and stewardship theory. However, this study focused on agency theory. The agency theory provides the mechanism that helps firm managers align their interests with the interests of the owners and putting in place effective internal control system so that the management work in aligning the principal's interests to the agents. Thus, based on the resource dependency theory, the key role of the Board of directors is to control and monitor the managers so as to ensure that resources are managed efficiently.

Empirical Review: Kinyua (2016) examined the effect of internal control systems proxied by risk management on financial performance of manufacturing companies quoted in

the Nairobi securities exchange. The main objective of the study was to determine the effect of internal control systems on financial performance of companies quoted in the Nairobi securities exchange. The study which was a primary data study adopted the descriptive research design and data were collected using structured questionnaire. The study found that internal control has a significant relationship with financial performance and concluded that internal control system is a positive significant predictor of financial performance. The findings of the study, according to the author, suggested that internal control systems especially risk management, corporate governance, control activity, internal control environment and internal audit function are significant areas management of companies should give great attention to in order to improve their financial performance. Nyakundi, Nyamita and Tinega, (2014) carried out an investigation on the effect of internal control system on financial performance of manufacturing companies in Kisumu city, Kenya. The major purpose of the study was to assess the relationship between internal control system and return on investment. The study which was a primary data study adopted the cross-sectional survey research design and was conducted on one hundred and seventeen (117) manufacturing companies in Kisumu city, Kenya. Stratified and simple random sampling techniques were used while data were collected using structured questionnaire and interviews. The result of the analyses revealed a significant change in the financial performance of manufacturing companies which is linked to the existence of an internal control system. The study concluded that internal controls significantly influence the financial performance of manufacturing companies and recommended that managers should be trained on the significance of internal control.

Njeri (2014) investigated the effect of internal controls on the financial performance of manufacturing firms in Kenya. The primary objective of the study was to determine the effect of internal control system on financial performance of manufacturing firms in Kenya. Twenty (20) manufacturing firms constituted the sample of the study. The study used primary and secondary data. Primary data were obtained using structured questionnaire while secondary data were obtained from the financial statements of the manufacturing firms surveyed. The study which adopted the multiple regression approach to data analysis found that most of the manufacturing firms surveyed had a strong control environment which impacted positively on the financial performance of the firms. The study concluded that manufacturing firms that had invested on effective internal control systems had improved financial performance as compared to those manufacturing firms that had a weak internal control system. Consequently, the study recommended that the governing body (the Board) of manufacturing firms, supported by the audit committee should ensure that the internal control system is periodically monitored and evaluated. Abdullah and Farouk (2018) studied the impact of risk management on manufacturing companies in China. The investigation utilized a regression model with the aid of econometric package. The econometric result indicated that for better management of risk in manufacturing firms, there is the need to comply with both national and international regulations and procedures. Arjeta and Miranda (2018) studied the relationship between risk management and profitability of commercial banks in Albania during the period of 2008 to 2018 using ROA and ROE as a proxy for profitability. The study utilized quantitative data analysis and multiple regression model, the econometric results indicated that

effective management of the exposure of commercial banks to risk not only support the viability and profitability of commercial banks but also contributes to the system stability and efficient allocation of capital to the economy. Okere and Isiaka (2018) examined the impact of risk management on financial performance of deposit money banks in Nigeria. The study utilized panel methodology, Hausman test and descriptive statistics. Evidence from the findings confirmed that strong positive relationship exists between risk management and financial performance of money deposit banks. Haitham and Nejla (2017) investigated the degree of operational risk disclosure and its impact on operating cash flow of banks listed on the UAE Abu Dhabi Stock Exchange (ADX) and Dubai Financial Market (DFM) during the period 2003-2016. The dependent variable is the operational cash flow while the independent variable comprises of operational risk disclosure and the ratio of total liabilities to total assets. The authors conducted content analysis of the annual reports to measure the degree of operational risk disclosure. In addition, they used dynamic panel data regressions to analyze the impact of operational risk disclosure on the operating cash flow generated by the banks. The results showed a low degree of operational risk disclosure for all UAE banks, both Islamic and conventional.

Eke (2018) examined the effect of internal control systems measured as Board independence and internal communication of information on the financial performance of firms in the hospitality sector. The survey research design was adopted for the study. The population of the study was made up of all hospitality firms operating in Rivers State. Convenience sampling technique was adopted in selecting twenty hospitality firms that constitute the sample of this study. Data collection was done primarily using structured questionnaire and secondarily through journals, textbooks and the internet. The reliability index of the instrument was 0.765 obtained using the Cronbach Alpha technique. Data analysis was carried out using descriptive statistics of percentages, means and standard deviations. Linear regression and correlation analysis were used in testing the hypotheses postulated.

The investigation found that internal controls to a significant extent influence financial performance of hospitality firms and that a positive relationship exists between internal control and financial performance of hospitality firms in Rivers State. The study concluded that the control environment affects total revenue as such influences the financial performance of hospitality firms, its nonexistence or inadequacy may spell doom for an organization. One of the recommendations made was that management of HOs should regularly upgrade their information and communication framework to enable them cope with the frequent changes in the global environment and as such improve their financial performance. Josuha, Effiong and Imong (2019) examined internal control systems and financial performance of listed deposit money banks (DMBs) in Nigeria. The study covered DMBs listed in the Nigerian Stock Exchange (NSE) for a ten-year period from 2007 to 2016 and data were obtained from the selected banks annual financial reports. Data were presented using tables and analyzed using panel data regression. The internal control system of Board independence, Board size (BSIZE), Board composition (BCOM) and audit committee (ACOM) were used as independent variables. Performance of the listed DMBs was measured by return on asset (ROA) which is the dependent variable while the bank size (FSIZE) was used as a

control variable. The findings of the study revealed that while Board size had a positive but insignificant relationship with performance; audit committee, Board composition and bank size all had positive and significant relationships with return on asset. The study therefore concluded that Board independence and audit committee are good predictors of performance as measured by return on assets (ROA). The study recommended that DMBs listed in the Nigerian Stock Exchange should strive to have an average of fourteen members in their Boards to avoid decision-making problems which are characterized by larger Board of directors and should therefore comprise a mix of executive and nonexecutive directors with the relevant credentials, competence, and experience to serve on the Board of banks. Additionally, the audit committee of banks should meet often to enable them to review the financial reports of the banks and make appropriate recommendations that will help to improve the performance of the banks. Ibrahim, Adesina, Olufowobi and Ayinde (2018) examined the influence of internal control measured by independence of Board of directors on return on assets of quoted banks in Nigeria. The study used secondary data from 2013 to 2017. Data were sourced from selected annual report and accounts of three quoted banks listed in the Nigerian Stock Exchange. The study utilised both descriptive statistics and ordinary least square multiple regression method. The results showed that internal control system has significant influence on return on assets. The results further indicated that the proportion of share held by shareholders, Board composition, Board size and bank size exert a positive and significant effect on return on assets of quoted banks in Nigeria and bank size has significant positive influence on return on assets. The study recommended that Board of directors' size of quoted banks in Nigeria should not be too large and must be meeting regularly to effectively and efficiently carry out their oversight functions and responsibilities.

Molla (2019) examined the effect of internal control system on financial performance manufacturing companies in Ethiopia by taking a sample of 6 commercial banks from 2003 to 2009. The study used return on asset, return on equity and operating profit margin as dependent variables to measure financial performance and Board size, Board independence, frequency of Board meetings, chief executive officer duality, audit committee and Board ownership as independent variables to express quantitatively internal control mechanisms. In addition, firm size, financial leverage and firm growth rate were used as control variables, which are specific to manufacturing firms and general to the economy. The researcher used both correlation analysis and pooled panel data regression models of cross-sectional and time series data for analysis.

The results provided evidence that Board size is negatively and significantly related with all the three indicators of financial performance- return on asset return on equity and operating profit margin. Audit committee and financial performance indicators-return on asset and return on equity was found to be negative and statistically significant, but not significant with operating profit margin. Board independence, chief executive officer duality and Board ownership were positively and significantly related with all the three financial performance indicators. However, frequency of Board meetings was not statistically significant with all the three financial performance indicators.

METHODOLOGY

To achieve the objectives of this study an *ex-post facto* research design was employed, the target population of this study includes the entire forty-three (43) manufacturing companies currently quoted on Nigerian Stock Exchange as at August, 2019.

In other words, forty-three (43) manufacturing companies form Consumer Goods, Healthcare Services and Industrial goods currently quoted on NSE was considered the population of this study. A sample of fifteen (15) out of the forty-three (43) manufacturing companies under consumer goods, healthcare and industrial goods quoted on the Nigeria stock exchange was purposively selected for a period of ten (10) years

Model Specification

The models in functional forms are given as;

$$Y_t = f(X_t)$$

Y_t = vector of dependent variables while

X_t = vector of independent variables

In specific manner;

$$ROA = f(LQR, CIR) \text{ equ. (1a)}$$

$$ROA = f(LQR, CIR, FSZ, FGE) \text{ equ. (1b)}$$

$$ROA = f(NXD, NOM) \text{ equ. (2a)}$$

$$ROA = f(NXD, NOM, FSZ, FGE) \text{ equ. (2b)}$$

However, the models are specified in empirical forms as;

$$ROA_{it} = \alpha_0 + \alpha_1 LQR_{it} + \alpha_2 CIR_{it} + \varepsilon_{it} \text{ equ. (5a)}$$

$$ROA_{it} = \alpha_0 + \alpha_1 LQR_{it} + \alpha_2 CIR_{it} + \alpha_3 FSZ_{it} + \alpha_4 FGE_{it} + \varepsilon_{it} \text{ equ. (5b)}$$

$$ROA_{it} = \alpha_0 + \alpha_1 NXD_{it} + \alpha_2 NOM_{it} + \varepsilon_{it} \text{ equ. (6a)}$$

$$ROA_{it} = \alpha_0 + \alpha_1 NXD_{it} + \alpha_2 NOM_{it} + \alpha_3 FSZ_{it} + \alpha_4 FGE_{it} + \varepsilon_{it} \text{ equ. (6b)}$$

Where;

R = Return on Asset (Proxy for Financial Performance)

L = Liquidity ratio

C = cost to income ratio (ratio of operating expenses to operating income)

N = Proportion of Non-executive directors on Board

N = Number of Board meetings

F = Firm Size

F = Firm Age

ε = error term

α_0 = constant

$\alpha_1 - \alpha_4$ = model coefficients and the subscript it = cross-section 1-n and time t

DISCUSSION OF RESULTS

Descriptive Analysis

Dependent Variable: The parameters we considered as dependent variables for assessing the effect of internal control system on financial performance of manufacturing companies listed in Nigeria in this study is Return on Asset (ROA). Liquidity ratio has a mean of 0.274 indicating that on the average, liquidity ratio growth by 27.4% per year. The mean of liquidity ratio was within its minimum and maximum range of growth within 2.0% and 71.0%. Liquidity ratio dispersion was 13.9%. This standard deviation indicated a narrow variation in liquidity ratio within the period considered. Also, cost to income ratio within period considered was 0.636 which means that on average cost to income ratio was 63.6% which cannot be kept within one digit and by implication will go a long way in affect return on asset. Cost to income ratio has a minimum of 0.110 and a maximum value of 1.270 which and on average, cost to income ratio falls within its minimum and maximum. Also, its dispersion was 0.197. This standard deviation indicated a narrow variation in cost to income ratio within the period considered. Furthermore, proportion of non-executive directors on board as a whole was included in order to see its impact on return on asset and it was revealed that on the average, proportion of non-executive directors on board was 0.737. Proportion of non-executive directors on board has a minimum of 0.110 and a maximum value of 2.500 and from the average yearly proportion of non-executive directors on board for the sample as a whole with a standard deviation of 0.412 which measure dispersion indicated a high variation in proportion of non-executive directors on board within the period considered. In the same vein, number of board meetings has a yearly mean of 6.289 meaning that on the average, the board of director meet six times per year in order to decide on how to boost their company financial performance based on internal control system. The results was within the minimum range of meet of 2 times and maximum range of 13 times. The maximum recommendation for board of director to meet should be 13 times but they companies sampled only meet six times per year.

Pearson Pairwise Correlation: As part of the preliminary analysis, the study assesses the degree of association among the selected variables and other purposes of this result was to determine whether there are bivariate relationship between each pair of the dependent and independent variables considered in our subsequent analysis and to ensure that the correlations among the explanatory variables are not so high to the extent of posing multicollinearity problems. Specifically, the result in Table 4.2 showed that there were existence of positive associations between Return on Asset (ROA), Liquidity Ratio (LQR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC) and Firm Size with the correlation coefficients $r = 0.439$, $r = 0.114$, $r = 0.023$, and 0.449 respectively. However there were existence of negative association between Return on Asset (ROA), Cost to Income Ratio (CIR), Proportion of Non-Executive Directors on Board (NXD), Number of Board Meetings (NOM), Fines and Penalties Paid (FPD), Periodic Reports (PDR) and Firm Age (FGE) with the correlation coefficients $r = -0.213$, $r = -0.075$, $r = -0.252$, $r = -0.057$, $r = -0.057$ and $r = -0.070$ respectively.

Table 4.1. Descriptive Statistics

	ROA	LQR	CIR	NXD	NOM	FSZ	FGE
Mean	0.015	0.274	0.636	0.737	6.289	21.135	34.969
Median	0.013	0.260	0.650	0.700	6.000	21.100	29.000
Maximum	0.056	0.710	1.270	2.500	13.000	22.830	73.000
Minimum	-0.095	0.020	0.110	0.110	2.000	18.870	7.000
Std. Dev.	0.019	0.139	0.197	0.412	2.136	0.849	16.467
Skewness	-2.328	0.602	-0.387	1.310	0.968	-0.278	0.562
Kurtosis	15.762	3.685	4.108	6.461	3.844	2.573	2.476
Jarque-Bera	745.84	7.762	7.384	76.160	18.016	1.984	6.215
Probability	0.000	0.021	0.025	0.000	0.000	0.371	0.045

Source: Author's Computation (2021) using E-views 9 where ROA is Return on Assets, LQR is Liquidity Ratio, CIR is Cost to Income Ratio, NXD is Proportion of Non-Executive Directors on Board Directors, NOM is Number of Board Meeting, FSZ is Firm Size and FGE is Firm Age.

Table 4.2. Correlation Matrix

	ROA	LQR	CIR	NXD	NOM	FPD	PDR	FMD	DSC	FSZ	FGE
ROA	1.000										
LQR	0.439	1.000									
CIR	-0.213	-0.115	1.000								
NXD	-0.075	0.043	0.063	1.000							
NOM	-0.252	-0.189	0.304	0.273	1.000						
FPD	-0.057	0.137	-0.055	-0.159	-0.032	1.000					
PDR	-0.057	0.137	-0.055	-0.159	-0.032	0.430	1.000				
FMD	0.114	0.024	-0.031	0.008	0.289	0.026	0.026	1.000			
DSC	0.023	0.133	0.051	0.127	-0.144	0.312	0.312	0.026	1.000		
FSZ	0.449	0.392	-0.115	0.228	0.156	0.0002	0.0002	0.290	0.139	1.000	
FGE	-0.070	0.021	-0.011	-0.044	-0.150	0.087	0.087	0.197	0.171	-0.082	1.000

Source: Author's Computation (2021) using E-views 9. Where ROA is Return on Assets, LQR is Liquidity Ratio, CIR is Cost to Income Ratio, NXD is Proportion of Non-Executive Directors on Board Directors, NOM is Number of Board Meeting, FSZ is Firm Size and FGE is Firm Age.

Table 4.3. Lagrange Multiplier and Hausman Test for Risk Management on the Financial Performance of Manufacturing Companies Listed In Nigeria

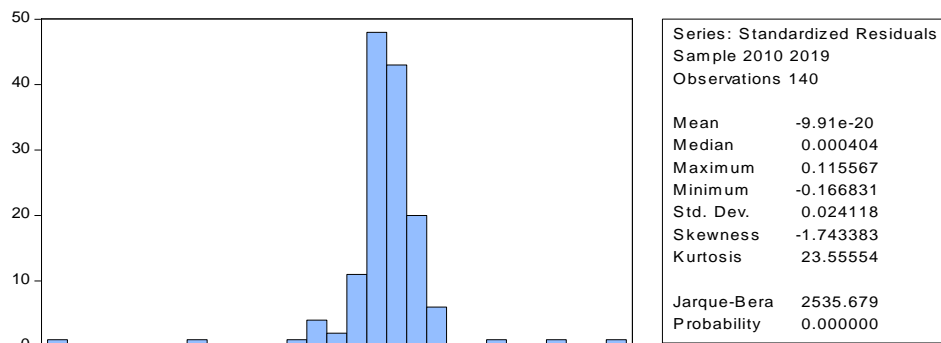
Tests	Chi2	P-Value
Breusch-Pagan Lagrange Multiplier (LM)	0.232	0.630
Hausman test	2.849	0.084

Source: Author's Computation (2021), with underlying data from audited financial reports of the sample manufacturing firms for a period of ten (10) years (2010-2019).

Table 4.4. Regression result of risk management on the financial performance of manufacturing companies listed in Nigeria

Variable	Pooled Coeff. Std. Dev. () Prob.[]	Random Coeff. Std. Dev. () Prob.[]	Fixed Coeff. Std. Dev. () Prob.[]
Constant	-0.094 (0.057) [0.100]	-0.103 (0.062) [0.103]	-0.121 (0.119) [0.310]
LQR	0.030* (0.017) [0.085]	0.024 (0.018) [0.193]	0.005 (0.021) [0.779]
CIR	-0.039*** (0.010) [0.000]	-0.039*** (0.010) [0.000]	-0.039** (0.012) [0.001]
FSZ	0.006** (0.003) [0.026]	0.006** (0.003) [0.030]	0.007 (0.007) [0.323]
FGE	-0.0001 (0.0001) [0.418]	-0.0001 (0.0001) [0.512]	0.0002 (0.0001) [0.858]
Observations	140	140	140
R ²	0.204	0.176	0.305
Adj. R ²	0.180	0.151	0.208
F-Statistic	8.662	7.212	323.32
Prob. (F-Stat.)	0.000	0.000	0.000

Source: Author's Computation (2021), with underlying data from audited financial reports of the sample manufacturing firms for a period of ten (10) years (2010-2019). Note: The dependent variable is Return on Asset (ROA) while the explanatory variables are Liquidity Ratio (LR) and Cost to Income Ratio (CIR), Firm Size (FSZ) and Firm Age (FGE); *** p<0.01, ** p<0.05, * p<0.1



Source: Author's Computation (2021), with underlying data from audited financial reports of the sample manufacturing firms for a period of ten (10) years (2010-2019).

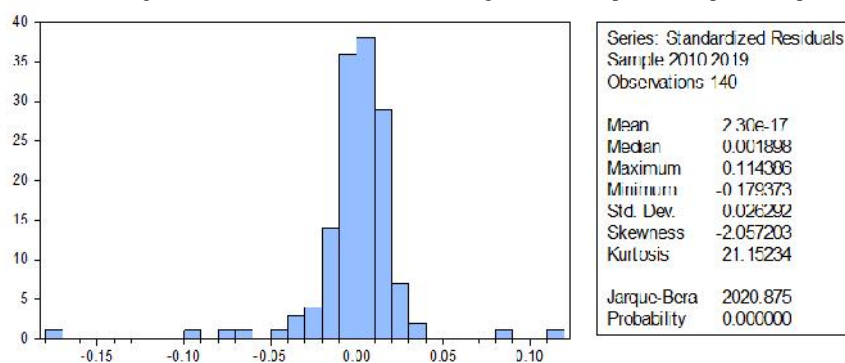
Test	Breusch-Pagan LM Cross-Section Dependence Test	Heteroskedasticity
Stat.	172.652	0.764
P-value	0.000	0.445

Figure 4.1. Diagnostic Tests for Risk Management and Financial Performance.

Table 4.6. Regression result of Board Independence on the Financial Performance of Manufacturing Companies Listed in Nigeria

Variable	Pooled Coeff. Std. Dev. () Prob. []	Random Coeff. Std. Dev. () Prob. []	Fixed Coeff. Std. Dev. () Prob. []
Constant	-0.189*** (0.053) [0.000]	-0.184** (0.062) [0.003]	-0.189*** (0.053) [0.000]
NXD	0.0001 (0.006) [0.978]	0.001 (0.006) [0.849]	0.0001 (0.006) [0.978]
NOM	-0.003*** (0.001) [0.000]	-0.003** (0.001) [0.001]	-0.003*** (0.001) [0.000]
FSZ	0.010 (0.002) [0.514]	0.010*** (0.000) [0.030]	0.010*** (0.002) [0.000]
FGE	-8.970 (0.0001) [0.514]	-8.830 (0.0001) [0.620]	-8.970 (0.0001) [0.514]
Observations	140	140	140
R ²	0.174	0.138	0.174
Adj. R ²	0.150	0.113	0.150
F-Statistic	7.150	5.441	311.239
Prob. (F-Stat.)	0.000	0.000	0.000

Source: Author's Computation (2021), with underlying data from audited financial reports of the sample manufacturing firms for a period of ten (10) years (2010-2019). Note: The dependent variable is Return on Asset (ROA) while the explanatory variables are Non-executive directors on board (NXD), Number of board meetings (NOM), Firm Size (FSZ) and Firm Age (FGE); *** p<0.01, ** p<0.05, * p<0.1



Source: Author's Computation (2021), with underlying data from audited financial reports of the sample manufacturing firms for a period of ten (10) years (2010-2019).

Test	Breusch-Pagan LM Cross-Section Dependence Test	Heteroskedasticity
Stat.	160.282	0.764
P-value	0.000	0.445

Figure 4.2. Diagnostic Tests for Risk Management and Financial Performance

Also the correlation coefficients of $r = 0.043$, $r = 0.137$, $r = 0.137$, $r = 0.024$, $r = 0.133$, $r = 0.392$, and $r = 0.021$ indicated that Proportion of Non-Executive Directors on Board (NXD), Fines and Penalties Paid (FPD), Periodic Reports (PDR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC), Firm Size (FSZ) and Firm Age (FGE) maintained positive associations with return on Liquidity Ratio (LQR) though these positive associations are weak but Cost to Income Ratio (CIR) and Number of Board Meetings (NOM) has a negative effect on return on asset with correlation value of $r = -0.115$ and $r = -0.189$ respectively. The result revealed that there are evidence of positive associations between return on equity, return on assets, receivables collection period and cash conversion cycle as can be seen from the correlation coefficients of $r = 0.053$, $r = 0.382$ and $r = 0.336$ respectively. However there were existence of negative association between return on equity, inventory conversion period and payables payment period as can be seen from the correlation coefficients of $r = -0.289$, and $r = -0.091$ respectively. The result showed the existences of positive associations between Cost to Income Ratio (CIR), Proportion of Non-Executive Directors on Board (NXD), Number of Board Meetings (NOM) as can be seen from the correlation coefficients of $r = 0.063$, and $r = 0.304$ respectively. However there were existence of negative association between Cost to Income Ratio (CIR), Fines and Penalties Paid (FPD), Periodic Reports (PDR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r = -0.055$, $r = -0.055$, $r = -0.031$, $r = -0.115$ and $r = -0.011$ respectively.

The result revealed that there are existences of positive associations between Proportion of Non-Executive Directors on Board (NXD), Periodic Reports (PDR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC) and Firm Size (FSZ) as can be seen from the correlation coefficients of $r = 0.273$, $r = 0.008$, $r = 0.127$ and $r = 0.228$ respectively. However there were existence of negative association between Proportion of Non-Executive Directors on Board (NXD), Fines and Penalties Paid (FPD), Periodic Reports (PDR), and Firm Age (FGE) as can be seen from the correlation coefficients of $r = -0.159$, $r = -0.159$ and $r = -0.044$ respectively. The result showed the existences of positive associations between Fines and Penalties Paid (FPD), Periodic Reports (PDR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC), Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r = 0.430$, $r = 0.026$, $r = 0.312$, $r = 0.0002$ and $r = 0.087$ respectively. The result showed the existences of positive associations between Periodic Reports (PDR), Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC), Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r = 0.026$, $r = 0.312$, $r = 0.0002$ and $r = 0.087$ respectively. The result showed the existences of positive associations between Frequency of Monitoring Internal Control Deficiencies by the Audit Committee (FMD), Disclosures of Accounting Policies in the Financial Statement (DSC), Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r =$

0.026 , $r = 0.290$ and $r = 0.197$ respectively. The result showed the existences of positive associations between Disclosures of Accounting Policies in the Financial Statement (DSC), Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r = 0.139$ and $r = 0.171$ respectively while there were existence of negative association between Firm Size (FSZ) and Firm Age (FGE) as can be seen from the correlation coefficients of $r = -0.082$. Looking at the explanatory variables, the correlation coefficients are between -0.032 and 0.449 , none of the correlation coefficients is too high to the point of causing multicollinearity problem.

Test of Hypothesis One (H_{01})

Interpretation of Results

The regression result of the effect of risk management on the financial performance of manufacturing companies listed in Nigeria using the pooled (OLS), random effect and fixed effect models are presented in this subsection. In achieving this, the variable that is regarded as dependent variable is Return on Asset (ROA) while the explanatory variables are Liquidity Ratio (LR) and Cost to Income Ratio (CIR), Firm Size (FSZ) and Firm Age (FGE). From the results in Table 4.3, the Breusch and Pagan Lagrange multiplier (LM) [0.232 (p -value = 0.630) and Hausman [2.849 (p -value = 0.084)] tests results for the model showed that the preferred model is random effect model. Therefore, the random regression model in column (2) of Table 4.4 is considered appropriate to establish the relationship that exists between risk management and financial performance of manufacturing companies listed in Nigeria from 2010 - 2019. Based on the result in column 2 of Table 4.4, the F-statistics value [7.212; p -value = 0.000) showed that the explanatory variables are jointly statistically significant in explaining the variations in the dependent variable, return on asset (ROA). The coefficient of determination (Adjusted R^2) value of 0.151 indicated that the explanatory variables were able to explain about 15.1 % changes that occurred in the dependent variable. Based on the results, the liquidity ratio (LQR) was positively and statistically insignificant within the 1% and 10% conventional level of significance (coefficient = 0.024; p -value = 0.193). Alternatively, the significant result suggested that the influence of liquidity ratio (LQR) on return on asset (ROA).

The results revealed that there is a negative and significant effect of cost to income ratio (CIR) on return on asset (coefficient. = -0.039; p -value = 0.000). Alternatively, the significant result suggested that the influence of cost to income ratio on return on asset (ROA) is negative and significant. Based on the results, the firm size (FSZ) was positively and statistically significant within the 1% and 10% conventional level of significance (coefficient = 0.006; p -value = 0.030). Alternatively, the significant result suggested that the influence of firm size (FSZ) on return on asset (ROA). Based on the results, the firm age (FGE) was negative and statistically insignificant within the 1% and 10% conventional level of significance (coefficient = -0.0001; p -value = 0.512). Alternatively, the insignificant result suggested that the influence of firm age (FGE) on return on asset (ROA). The F-statistics depicts the overall statistical significant of the effect of risk management on the financial performance of manufacturing companies listed in Nigeria. Giving the F-statistics value of 7.212 with probability value of 0.000 showed that risk management have statistical impact on

financial performance of manufacturing companies listed in Nigeria, hence the null hypothesis of no significant effect is rejected. In this study, we used Jarque-Bera statistic to check whether the residual (error term) of the estimated model when the working capital on operating profit margin indicators is not normally distributed. From Figure 4.1, the test statistics (172.652) and its associated p-value (0.000) are statistically significant. This means that the residual is not normally distributed. For heteroskedasticity test, the insignificant value of p-value suggests the acceptance of the null hypothesis of homoskedastic. This means that the model is free from heteroskedasticity problem. Further, the significant value of P-value of Breusch-Pagan LM Cross-Section Dependence Test result showed that the residual is not free from cross-section dependence (correlation).

Test of Hypothesis Two (H_{02})

Interpretation of Results: The regression result of effect of board independence on the financial performance of manufacturing companies listed in Nigeria from 2010 to 2019 in terms of return on asset (ROA) using the pooled (OLS), random effect and fixed effect models are presented in this subsection. In achieving this, the variable that is regarded as dependent variable is return on assets (ROA) while the explanatory variables are Non-executive directors on board (NXD), Number of board meetings (NOM), Firm Size (FSZ) and Firm Age (FGE). From the results in Table 4.8, the Breusch and Pagan Lagrange multiplier (LM) [0.301 (p-value = 0.583 and Hausman [0.994 (p-value = 0.901)] tests results for the model showed that the preferred model is Random regression model. Therefore, the random regression model in column (2) of Table 4.6 is considered appropriate to establish the relationship that exists between board independence on the financial performance of manufacturing companies listed in Nigeria 2010 to 2019 in terms of return on asset (ROA).

Based on the result in column 3 of Table 4.6, the F-statistics value [5.441; p-value = 0.000) showed that the explanatory variables are jointly statistically significant in explaining the variations in the dependent variable, return on asset (ROA). The coefficient of determination (Adjusted R^2) value of 0.113 indicated that the explanatory variables were able to explain about 11.3% changes that occurred in the dependent variable.

Based on the results, the Non-executive directors on board (NXD) was positively and statistically insignificant within the 1% and 10% conventional level of significance (coefficient = 0.0001; p-value = 0.849). Alternatively, the insignificant result suggested that the influence of Non-executive directors on board (NXD) on return on asset (ROA). The results revealed that there is a negative and significant effect of cost to Number of board meetings (NOM) on return on asset (coefficient. = -0.003; p-value = 0.001). Alternatively, the significant result suggested that the influence of cost to income ratio on return on asset (ROA) is negative and significant. The result revealed that Firm Size (FSZ) was positively and statistically significant within the 1% conventional level of significance (coefficient = 0.010; p-value = 0.030). Alternatively, the significant result suggested that the influence of Firm Size (FSZ) on return on asset (ROA). The results revealed that there is a negative and insignificant effect of Firm Age (FGE) on return on asset within the 1% and 10% conventional level of significance (coefficient. = -8.830; p-value = 0.620). Alternatively, the insignificant result suggested that the influence of cost to income ratio on return on asset (ROA) is negative and significant.

The F-statistics depicts the overall statistical significant of the effect of board independence on the financial performance of manufacturing companies listed in Nigeria. Given the F-statistics value of 5.441 with probability value of 0.000 showed that board independence have statistical impact on financial performance of manufacturing companies listed in Nigeria, hence the null hypothesis of no significant effect is rejected. In this study, we used Jarque-Bera statistic to check whether the residual (error term) of the estimated model when the working capital on operating profit margin indicators is not normally distributed. From Figure 4.2, the test statistics (160.282) and its associated p-value (0.000) are statistically significant. This means that the residual is not normally distributed. For heteroskedasticity test, the insignificant value of p-value suggests the acceptance of the null hypothesis of homoskedastic. This means that the model is free from heteroskedasticity problem. Further, the significant value of P-value of Breusch-Pagan LM Cross-Section Dependence Test result showed that the residual is not free from cross-section dependence (correlation).

DISCUSSION OF FINDINGS

The purpose of this study was to determine the effect of effect of Internal Control system on financial performance of manufacturing companies listed in Nigeria. Secondary data were used for the analysis. From the descriptive regression analysis, the following are the findings:

The liquidity ratio (LQR) was positively and statistically insignificant within the 1% and 10% conventional level of significance on return on asset (ROA). The results also revealed that there is a negative and significant effect of cost to income ratio (CIR) on return on asset (coefficient. = -0.039; p-value = 0.001). The results also affirmed that firm size was positively and statistically significant within the 1% and 10% conventional level of significance on return on asset (ROA). While firm age (FGE) was negative and statistically insignificant within the 1% and 10% conventional level of significance on return on asset (ROA). The result also affirmed that Non-executive directors on board (NXD) was positively and statistically insignificant on return on asset (ROA). The results revealed that there is a negative and significant effect of cost to Number of board meetings (NOM) on return on asset. The result revealed that Firm Size (FSZ) was positively and statistically significant on return on asset (ROA). The findings of the study find a solace from the work of Oluwafemi and Obawale (2010), Kamau (2010), Wanjohi (2013), Muteti (2014), Lyambiko (2015), Olusanmi and Uwuigbe (2015), Kinyua (2016) & Abdullah and Farouk (2018) study found that cost to income ratio exhibit a negative significant effect on performance. Also, the results of the research work concur with the findings of Grove, Patelli, Victoravich and Xu (2011); Ahmed and Hamdan (2015); Omoniyi and Akinselure (2016); Mawanda (2017) and Al-Habaybah (2019).

Conclusion

The results of the regression model showed that there is a positive relationship between internal controls and financial performance of the manufacturing firms under study. That is, financial performance is measured by the efficiency and effective implementation of internal controls. This implies that a single unit increase in any of the independent variables resulted in a corresponding increase in financial performance

among the manufacturing firms. All the internal control variables had positive coefficients (i.e. positive relationship with financial performance). The components of internal control (Risk management, Board independence, firm size, firm age) also had significant positive relationship with financial performance (i.e. p-values of less than 5%), the study established that internal controls affect financial performance of manufacturing firms in Nigeria to a great extent. From the findings of the study, it can be concluded that manufacturing firms that had invested on effective internal control systems have more improved financial performance as compared to those manufacturing firms that had a weak internal control system.

Recommendation

The following recommendations were made based on the outcome of the study

-) Managers should be trained on the significance of risk management in order to mitigate risks, hence improve their financial performance
-) The Board of directors should ensure that the implementation of internal control improvement strategy recommended by both internal and external auditors is periodically monitored and evaluated.

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