



## **Internal Control and Firm Performance: Evidence from Selected Firms in Nigeria (2015-2020)**

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### **ABSTRACTS**

Internal control the set of mechanism designed to motivate an individual or a group towards achievement of desired objectives. The main objective of this study is to analyse the effect of internal control on firm performance: evidence from selected firms in Nigeria. The specific objectives are to: determine the effect of cash control on firm performance in Nigeria, evaluate the effect of risk assessment on firm performance in Nigeria and to investigate the effect of inventory control on firm's performance in Nigeria. Secondary data that were sourced from the Nigeria Stock Exchange (NSE) Fact Book and Daily Official List for the study and the study adopted the Ex post facto research design. To employed econometric technique involving the Descriptive Statistics, correlation analysis and the Ordinary Least Square Regressions (OLS) for predicting the effect of internal control on firm performance: evidence from selected firms in Nigeria. The result of the Ordinary Least Square showed that cash control, risk assessment and internal control has positive and significant effects firm performance in Nigeria. The study thus concludes that internal control has positive effect on firm performance in Nigeria. In line with the objectives and findings, we recommend that cash control has positive and significant effect on firm performance in Nigeria. The study recommends that management of quoted firms in Nigeria should formulate policy that will be geared toward enhancing cash control. Increasing firm risk assessment will significantly affect firm performance in Nigeria. The study recommends that management of quoted firms in their drive to enhance firm performance; management should increase and improve risk assessment and that the management of quoted firm should improve in internal control

**Keywords:** Internal Control, Firm Performance, Nigeria

### **INTRODUCTION**

Internal controls (ICs) are a fundamental component of the risk management systems. ICs can be applied to several parts of a business, whether "strategic, financial, operational and compliance" (Financial Reporting Council, 2014). According to Adeoye and Adeoye (2014), "internal control system is a topical issue following global fraudulent financial reporting and accounting scandals in both developed and developing countries". Internal control is defined by Committee of Sponsoring Organizations of the Treadway Commission (COSO) as "the process designed, implemented and maintained by those charged with governance, management and other personnel to provide reasonable assurance about the achievement of an entity's objectives with regards to reliability of financial reporting, effectiveness and efficiency of operations, and compliance with applicable laws and regulations". An alternative definition was given by Benjamin (2001) as "the whole system of control, financial and otherwise, established by management in order to carry on the business of the enterprises in an orderly and efficient manner".

The survival of any organization depends on the effective and efficient utilization of resources (financial and non-financial) at the disposal of the organization. Hence, to optimize the utilization of resources entrusted to all employees in an organization, various form of control are put in place by management of the organization, among these major controls are internal control and internal audit to

mention a few. According to Kirsch,(2002) internal control can be defined as a set of mechanism designed to motivate an individual or a group towards achievement of a desired objectives while, Ouchi (1979) stated that internal control must be able to achieve the objective of bringing about cooperation among people with divergent objectives in an organization. Similarly, 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 make sure the business is conducted in the most possible efficient way and also ensuring strict adherence to management policies, safeguarding of asset, prevention and detection of fraud and timely preparation of reliable account. On the other hand, Financial Performance of an organization can be described in various form, such as; return on assets, return on sales, return on equity, return on investment, return on capital employed and sales growth (Gerrit & Abdolmohammadi, 2010). It is also a measure of the excess value a company has provided to its shareholders over the total amount of their investments. According to Donald & Delno (2009), appropriate performance measures are those which enable organizations to direct their actions towards achieving their strategic objectives

The key is acknowledgement that “business as usual” is a mindset of the past and that the future will require a new approach to the management of companies. Products must take a holistic approach that accounts for the ecosystem services affecting firms. Those companies that consider all of the technological, financial, physical and regulatory practices that affects firm performance will be more successful at providing sustainable and economical work environment thus enhance their performance. Implementation of strong internal controls help position water for future success. The companies will develop; design and institute structures, processes and systems not primarily based on rational economic cost benefit analysis, but because they are more or less required incorporating new practices and procedures. By doing so, they mitigate agency problems and increase assurance to all stakeholders. Improved firm performance and appropriate sanitation is fundamental to the elimination of poverty yet access to most firms remains very poor in Nigeria. Although financial mechanism have improve and the sector has attracted funding, from both the local private sector and the external support agencies, there is a lot to be done to improve firm performance in Nigeria, so that the un-served and marginalized groups can realize the human right. Strategies required include mechanisms for improving participation, efficiency, transparency, accountability mechanisms at individual, household, community, institutional, organisational levels. This calls for well defined system of internal control.

### **Statement of the Problem**

It is essential that any organization should have a strong system of internal accounting control designed to facilitate the achievement of the goals and objectives of the organization. Most of the significant losses incurred by the several organizations could properly be avoided if the organization maintains a strong internal accounting control system such which will facilitate early detection and prevention of acts that lead to losses, thus limiting the business to damages. Sufficient understanding of the internal accounting control system is to be obtained to plan the nature, timing and the extent of test to be performed to the records. In the United State of America, many organizations have adopted the internal accounting control concepts presented in the report of the Committee of Sponsoring Organizations of the Trade way Commission explained that internal accounting control system is mechanism for reducing instances of frauds, misappropriation and errors.

Despite that fact that internal control system have been in existence for many years in most organisation, the problem of financial crimes, have continued to be on the increase. The manufacturing firms worldwide have experienced significant failures and crisis over the years. Manufacturing firms are of great concerns to government and individual because of its systematically nature and often exacerbate recession and catalyst for financial crisis.

Internal control problems are a common place in the manufacturing sector and that allowed traders to cause huge financial losses to the firms. Lack of management structures and corporate governance has resulted in poor performance of these entities. Firms are plagued with severe deficiencies in the delivery of services remaining poor in general. The sector’s worrying performance is caused, among other reasons, by financial and capacity constraints, including the absence of a commercial orientation to services, institutional deficiencies and the lack of systemic incentives to deliver ongoing quality services (Ray & Kurt, 2011).

In addition the incidence of internal control weaknesses, unsatisfactory and deteriorating service delivery have the undesired effect of not only weaken the company the company's ability to effectively deliver services but also encourages collusion, fraud, embezzlements, loss of cash(revenue), assets conversion genuine and deliberate mistakes, corruption, lack of transparency and accountability for revenue collection and other assets. Internal control is crucial aspect of an organisation governance system and ability to manage risk. It ensures the achievement of an organisation's objectives and creating enhancing and protecting stakeholder's value. Precipitins the current global financial crisis in high profile corporate failures such as ENRON AN world.com in the USA, Europe and similar cases of corporate collapse in Nigeria. This study assesses the internal control on the selected firms in Nigeria.

## **REVIEW OF RELATED LITERATURE**

### **Conceptual Framework**

#### **Internal Control**

Internal control can be defined as a set of mechanism designed to motivate an individual or a group towards achievement of a desired objectives (Kirsch, 2002). Ouchi (1979) was of the view that internal control must be able to achieve the objective of bringing about cooperation among people with divergent objectives in the organization. Furthermore, Cahill (2006) defines 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 the primary goal of the organization is achieved. Similarly Transparency International (2006) reported that internal control is control developed by organization to generate transparency and avoid corruption. Transparency International (2006) further stated that corruption usually arise as a result of abuse of public office for private gains e.g.: bribery: kickbacks and embezzlement of public funds. 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.

Amudo and Inanga (2009) studies reveal that internal control can be defined as the process involving the use of integrated activities often suggested by management of the organization and which are embedded in all organization direct and indirect activities so as to achieve the primary goal of the organization.

This is a control designed and installed by the management of an organization for the growth and survival of the organization. It is the responsibility of the management to ensure and maintain this system of control to enhance efficiency and performance quality of an organisation. Internal control has been variously defined by both academicians and practitioner.

Internal control as defined by (Kudin, 2017), is an integral process that is affected by an entity's management and personnel and is designed to address risks and to provide reasonable assurance that, in pursuit of the entity's mission, the general objectives are achieved and executed in an orderly manner ethically, economically, efficiently and effectively, there by fulfilling accountability obligations; complying with applicable laws and regulations; and also help in safeguarding resources against any loss, misuse and damage. (Labaran, 2016) sees internal control system as the integration of activities, plans, attitudes, policies, and efforts of people of an organisation working together to provide reasonable assurance that the organization working together to provide reasonable assurance that the organization would achieve it's objectives and mission. Specifically, the role of internal auditor is assessing internal control system, which consists of rules and standards set up by the management. From the foregoing, internal auditor could be seen as a measure responsible to provide advices on how to improve the control systems and corrective action if needed.

The advices and suggestions given are normally based on the ability of the auditor to foresee the future uncertainty events that may happen due to current weaknesses or loopholes of control systems. The main objectives of internal control system are to ensure reliability of financial reporting, efficiency and effectiveness of operations and compliance with law and regulations (Nwaiwu,&Peters,2014) Internal Control Effectiveness A program is seen to be effective if its outcome goes along with its objective (Ogundikpe,2016). Effectiveness, according to (Okoh, &

Unugbro, 2013) is the capacity to obtain results that are consistent with the target objectives. Internal control can be considered as effective if it achieves its main objectives of reliability of financial reporting, efficiency and effectiveness of operations and compliance with law and regulations.

Effective internal control is present when it can safeguard the organisation's asset and reliable financial reporting can be produced. According to (Kiabel, 2012) authority is every single process and operations are developed with reasonable control to ensure all resources are used to optimum level, manage to produce high quality product or services and at lower cost. When the authority set out the company's objectives, the next important step is to identify risks that may occur order to achieve the objectives. Ability to identify this risk according to Kiabel & Akenbor, (2012) would assist the authorities to design needed control which could be effectively achieved when it can cater and mitigate the risk. Ability to manage the risk through appropriate control lead organisations to achieved its object. Effective internal control did not only depend on its design, but also on how the people inside the organisation implement it. Kiabel, & Akenbor, (2014).in its opinion, internal control is said to be effective and efficient if the following basic factors are considered present. They include God factor, time management factor, knowledge factor, ICT factor and competence and integrity factor.

#### **Cash Control and Firm Performance**

Cash is used in starting a business as well as in liquidating the same for its breakup value (Pandey, 2004). It is made up of cash on hand and demand deposit while cash equivalents are short term highly liquid investment that are readily convertible to known amount of cash although subject to insignificant risks of changes in value (IFRS). Meanwhile, financial management is concerned with three roles: management of non-current assets, management of long-term liabilities including capital and management of current assets and current liabilities. Cash management, however, involves planning and control of components of current assets: accounts receivables (trade and other debtors), cash, prepayments, cash equivalents / short term investments; and current liabilities: accounts payables (trade and other creditors), accruals, bills payables and short term financing (Brealey, Myers and Marcus, 2007).

Cash management has been vastly described by experts. Their opinions fortunately are convergent. According to the Chartered Institute of Bankers of Nigeria (CIBN, 2000), Cash management is employed in planning, monitoring and controlling cash inflows, cash outflows and the firm's cash position aimed at optimizing its liquidity. Uwuigbe, Uwalomwa and Egbide (2012) described cash management as a tool for discerning the firm's expected cash receipts and disbursements, choosing an optimal source of alternative financing and maximizing expected returns from investing idle cash. Larsson and Hammarlund (2005) opined that such items as receivables system, payables system, currency management and risks, liquid funds management, trade and other debtors, trade and other creditors and short term financing should form part of the cash management.

Effective cash management practices are imperative if firms in the manufacturing sector desire to satisfy the diverse interests of stakeholders. Firms that manage their cash and cash equivalents effectively optimize use of current assets and current liabilities during each financial / accounting year, speed up collections, delay disbursements / payments reasonably, manage risks of keeping idle and or little cash and make appropriate use of feedback (Allman-Ward and Sager, 2003). Regrettably, the practice is quite distinct in Nigeria. These firms employ such cash management method as fixed percentage of sales, purchases, cost of sales, etc. The management of these firms relies on rote memory, hunches and past experience to manage working capital components notwithstanding these practices are forgone alternatives of firms in advanced economics including multinational / transnational companies (Okafor, 2012).

#### **Inventory Control and Firm Performance**

Inventory is the stock purchased with the purpose of resale in order to gain a profit. It represents the largest cost to a manufacturing firm. For a manufacturing firm, inventory consists of between 20% and 30% of the total investment (Garcia – Teruel& Martinez, 2007). Inventory should therefore be managed well in order to facilitate the firm's operations. There are three main types of inventories namely; raw materials, work in progress and finished goods. However, Hopp and Spearman (2000) classify inventory into raw materials, work in progress, finished goods and spare parts. Raw materials are the stocks that have been purchased and will be used in the process of manufacture while work in progress represents partially finished goods. Finished goods on the other hand, represent those items of stock that are ready to be monetized (Nwankwo & Osho, 2010). Since the level of inventory is

large, the financial manager has to put into consideration the ordering cost, carrying cost and stock out cost of the inventory in determining the inventory level. For the purpose of this study Inventory level and inventory control systems were considered. Inventory Level In the management of inventory the firm is always faced with the problem of meeting two conflicting needs: - maintaining a large size of inventory for efficient and smooth production and sales operations and maintaining a minimum level of inventory so as to maximize profitability (Pandey, 2008). Both excessive and inadequate inventories are not desirable. The dangers of excessive inventories are that stockholding costs are too high and as a result the firm's profitability is reduced. According to Mohammad (2011) managers can create value for shareholders by means of decreasing inventory levels. However, maintaining inadequate level of inventory is also dangerous because ordering costs are too high. It may also lead to stock out costs. Saleemi (1993) asserts that there are advantages of maintaining an ideal level of inventory. This includes economies of scale to be gained through quantity and trade discounts, less risks of deterioration and obsolescence, and reduced cost of insurance among others. A study carried out by Mathuva (2010) on the influence of working capital management components on corporate profitability found that there exists a highly significant positive relationship between the period taken to convert inventories into sales and profitability. This meant that firms maintained sufficiently high inventory levels which reduced costs of possible interruptions in the production process and loss of business due to scarcity of products. Nyabwanga, Ojera, Lumumba, Odondo and Otieno(2012) found that small scale enterprises often prepare inventory budgets and reviewed their inventory levels. These results were in agreement with the findings of Kwame (2007) which established that majority of businesses review their inventory levels and prepare inventory budgets. These findings had already been stressed by Lazaridis and Tryponidis (2006) that enhancing the management of inventory enables businesses to avoid tying up excess capital in idle stock at the expense of profitable ventures. Nyabwanga et al. (2012) assert that good performance is positively related to efficiency inventory management.

#### **Risk Assessment and Firm Performance**

Risk Management refers to the process of identifying loss exposures faced by an organization and selecting the most appropriate techniques for treating these particular exposures effectively (Rejda, 2003). Risk and risk management have become common features of an organization in both private and public sectors. There is a great deal of attention to risk in academic circle, in industry, in the profession and in the media (Scheytt *et. al.*, 2006). Recent world events including the global financial crisis, the financial crisis facing the Euro zone, the Japanese earthquake and tsunami, the floods in Thailand and the Deepwater Horizon oil spill in the Gulf of Mexico have all reinforced as well as intensified interest in risk as well as risk management in the private and the public sectors (Scheytt *et. al.*, 2006).

Neely, Gregory and Platts (2002) describe performance measurement as the process of quantifying action where measurement is the process of quantification and action correlates with performance. According to Atkinson and colleagues (1997), performance measurement should help the economic entity to understand and assess the value received from suppliers as well as employees, the value provided by stakeholders and effectiveness of processes implemented in the economic entity together with its strategic properties. Therefore, performance measurement plays the role of coordination, monitoring and diagnosis of an economic entity's activities. The perception of risk management and organization practices is growing due to two main factors. First, an increased interest in corporate governance and a focus by Boards of Directors on identifying, assessing, treating and monitoring risks as well as evaluating effectiveness of management control to manage risks. Second, a trend towards world-wide government regulation utilizing risk-based regulatory approaches that focus on tighter internal control mechanisms, such as the Sarbanes-Oxley Act of 2002, COSO and the adoption of ISO 31000 as the international risk management standard. In addition, several other factors may be identified as motivating recent levels of interest in market risk. Foremost among these is the increased variety, complexity and volume of trade in financial instruments as well as derivatives (Fraim & Meegan, 1996). While most financial institutions are particularly proficient at measuring returns and constructing benchmarks to evaluate performance, it is argued that such expertise does not extend to measurement of risk (JP Morgan, 1996). However, it is a universally accepted precept of modern financial economics that efficient portfolios can yield higher returns only at the expense of higher risk. Therefore, performance analysis based solely on realized returns belies this very fundamental

economic principle and is, therefore, incomplete. This study applied Systems Theory to analyze the effect of risk management on firm's performance. Systems theory provides a more comprehensive and realistic perspective to the problem of managing risk in firms to impact on firm's value than previous frameworks that have been suggested like contingency theory.

### **Corporate Performance**

Performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage (Chen & Wong, 2004). There are two kinds of performance, financial performance and non-financial performance. Financial performance emphasizes on variables related directly to financial report.

The performance of an entity can be evaluated in two different dimensions: The first dimension is profitability dimension. It shows the extent which the company is able to generate earnings bigger than its costs. Measures like return on assets, return on equity, return on capital employed. According to Agnes (2013) the assessment of financial performance is based on the return on investment, residual income, earnings per share, dividend yield, price/earnings ratio, growth in sales, market capitalization, etc. The second dimension is market premium, or the level of which company's market value is exceeding its book value (Walker, 2010).

Various studies have measure / proxy company performance using various standards including gross profit, net profit, return on equity and return on assets among other measures. In this study both financial and market performance measurement was used. This study used return on assets and Tobin Q as measure for performance.

Tobin's Q: this is used to measure the market value of a company. The model relates investment to the company's stock valuation, which is meant to reflect the present discounted value of expected future profits. Tobin's Q, further assumes that the maximized value of the company can be measured by its stock valuation. Under these assumptions, the stock valuation would capture all relevant information about expected future profitability, and significant coefficients on cash-flow variables after controlling for Tobin's Q could not be attributed to additional information about current expectations. However if the Tobin's Q conditions are not satisfied, or if stock valuations are influenced by 'bubbles' or any factors other than the present discounted value of expected future profits; then Tobin's Q would not capture all relevant information about the expected future performance of current investment.

Those variables were operationalized as follows:

### **Theoretical Framework**

#### **Stewardship Theory**

This study adopts the stewardship theory. According to Madison (2014), stewardship theory assumes a humanistic model of man whereby the behaviour of the steward is based on serving others and hence behaves in a manner that will align with the interest of the principal. Here, structures are established to enhance harmonization of the steward's interest and that of the principal. This study adopts stewardship theory since the management (agent) is charged with the responsibility of establishing internal controls. It is believed that their actions are in the best interest of the owners and so they are given a reasonable level of autonomy to manage the institutions.

#### **Empirical Review**

Eniola, Akinselure, (2016) Studied the effect of internal control on financial performance of some selected firms. The methodology of the study is based on survey research approach. The statistical data used for the study were obtained by distribution of one hundred and fifty (150) questionnaires among selected employees, in the five (5) organizations considered in this research work. These respondent were selected using non-probability sampling method, the data obtained from the questionnaire were analyzed using multiple regression statistical tools in SPSS (Statistical packages for social sciences). The result of the analysis shows that internal control has significant relationship with fraud perpetrated in the organization, and this was because the P- value obtained (i.e.0.002) using multiple regressions was greater than the benchmark value of 5% specified in SPSS for this analysis. Based on this result, the study recommends that management should develop more effective strategies that will ensure that internal control is effective and efficient, so that fraud perpetration in the organization will be significantly reduced.

Livingstone and Isaac (2017) establish the effects of internal accounting control systems on enhancing the performance of banking organization. The study was guided by agency and contingency theories. The hypothesis tested were; there is no significant relationship between internal checks and performance, there is no significant effects of test checks on performance and there is no significant effect of internal audit on performance of tier one (1) banks. The study was conducted in Kericho town by considering a sample of 141 employees of tier one banks. Data was collected by use of questionnaires and analyzed by use of descriptive statistics and multiple regression analysis the results of the study showed a value of  $R^2=0.542(p=0.01)$ . The study established that there was significant relationship between internal accounting control system and performance of tier (1) one banks. The study recommends that the management of tier (1) one banks should strengthen their internal accounting control systems, that is, internal checks, internal audit and test checks since it significantly affected their performance. The study concluded that effective internal check in the bank result to increase in performances of tier (1) one bank and therefore, the banks should ensure they have strong and effective internal check procedures in monitoring their operations it also concluded that strong internal audit results to increase in performance of tier (1) one banks

John, Roselyn, Mouni, and George, (2015) sought to determine the effect of internal control systems on financial performance of companies quoted in the Nairobi Securities Exchange (NSE). To achieve the objective of this study, the research specifically looked at the following objectives, control environment, internal audit, risk management, internal control activities and role of corporate governance controls on the financial performance of quoted companies in Kenya. The study adopted survey research design. The population chosen for this study was all 62 companies quoted in NSE. The study used a sample of 38 companies from a target population of 62 companies quoted in NSE. The sample was drawn using stratified random sampling technique. The study relied on both primary and secondary data. Primary data was collected using structured questionnaires while the Secondary data was extracted from audited annual reports, publications and document analysis. Data analysis used both descriptive and inferential statistics. Frequency tables were prepared, averages determined and tests of hypothesis like ANOVA, chi-square, correlation analysis were done. The data was analyzed using statistical package for social scientists (SPSS) computer software version 21.0. The results and findings concluded that there was significant association between internal control environment and financial performance recommends that internal control environment should be enhanced to further improve the financial performance of companies quoted in Nairobi Securities Exchange

Oyeka, Nnado, and Iroegbu (2017) examined the relationship between cash (including liquid substitutes) and profitability of listed firms in the manufacturing sector of the Nigerian Stock Exchange. Ex-post-facto research approach via quantitative panel methodology was employed to evaluate the effect of the cash and cash equivalents on the dependent variable. Data were collated from the audited annual reports of thirty-six (36) manufacturing firms listed on the Nigerian Stock Exchange for the fifteen year period: 2003-2017. Diagnostic tests were carried out on the collated data using Levin-Lin-Chu panel unit-root test which confirmed their stationarity and Westerlund Panel Cointegration Tests that depicted the variables were not cointegrated in the long run. Further, Hausman test confirmed the consistency and suitability of the Fixed Effects (FE) multiple regression model. Hypothetical statements tested portrayed the existence of a significant positive influence of cash and cash equivalents on return on assets of the sampled firms. These results imply that optimizing firms' profits necessitate striking the best liquidity-profitability trade-offs, otherwise firms keeping insufficient liquid assets may be forced to borrow from external sources at exorbitant costs or become illiquid. The study concurred that Nigerian manufacturing firms' profitability is significantly influenced by the adequacy of cash holdings

Uremadu and Efobi (2009) investigated empirically the relationships between capital structure, liquidity and the dependent variable: corporate profitability in Nigeria. The study adopted pooled ordinary least square regression technique on a sample of 10 firms for the five year period (2002 – 2006). The technique made use of log – linear least squares for analysis of collated data. The study showed negative but statistically significant relationships between ratios of long term debt to total liability, short – term debt to total liability, equity capital to total liability and profitability. It also showed a positive and statistically significant relationship between the domestic liquidity rate and profitability, ratio of long – term debt to equity capital, total value of short term debt and profitability.

Nyabwanga, Otieno, & Nyakundi (2013) in their study of the relationship between liquidity, solvency and financial health of small and medium – sized enterprises (SMEs) in Kisii Municipality, Kenya identified unsound financial management, inadequate working capital, slow conversion of receivables and inventory into cash and cash equivalents, increasing trade debts and low turnover as causes of low or average performance of these firms. The study adopted ratio analyses method in analyzing secondary data collated from the audited annual accounts and the accompanying schedules of three SMEs. The study spanned for three years (2009 – 2011). Further analyses included measures of central tendencies and dispersion such as the arithmetic means, standard deviation, co-efficient of variation, and the Altman's Z – score model. Independent variables used are made up of current ratio, quick ratio and debts to total assets ratio while the dependent variables are return on asset (ROA), gross operating profit (GOP) and net operating profit (NOP). The study concurred that the current and quick ratios of the sampled firms are below industrial average of 2:1 and 1:1 respectively. Therefore, the SMEs are not capable of honoring debt obligations as they fall due. These SMEs employ aggressive financial policy and risks of insolvent are quite high for two out of the three firms.

Bolek and Wolski (2012) carried out a study on the impact of liquidity and profitability on the market value of firms using companies listed on the Warsaw Stock Exchange. The study investigated the relationships between cash, account receivables, inventories, account payables and profitability using ratios. The study claimed that dynamic management in firms entails ascertaining profitability using economic value added (EVA) and liquidity proxied by CCC. The study covered a ten year period (2000 – 2009) and purposefully selected a sample of 69 firms resulting in 690 observations. Collated data are analyzed using Pearson Product Moment Correlation and evaluation done using students t – test. It is observed that profitability is much more vital to Polish firms than liquidity in firm valuation. Further, investors prefer firms that maintain high level of cash in the Polish market in that the lower the CCC, the greater the market value of the firm and EVA.

Kroes and Manikas (2014) examined the relationships between quarterly and annual changes in cash flow positions and financial performance of publicly traded manufacturing firms in the COMPUSTAT database. The study covered a three year period consisting of 8 quarterly observations only. The study used Generalized Estimating Equation procedures in estimating the models analyzed using SPSS 19. Data on 1,233 manufacturing firms are analyzed longitudinally. It was discovered that there is no significant relationship between CCC and firm performance. However, changes in operating cash cycle (OCC), which is CCC minus account payable period, exhibited strong relationship with firm performance proxied by Tobin's q. In other words, reasonable reductions in inventory and accounts receivable periods have strong influence on firm performance. Moreover, univariate analysis suggests that reductions on accounts receivable period enhance profitability of firms.

Almeida, Campello, Cunha and Weisbach (2013) studied frame works of corporate liquidity management. They postulated that problems of managing liquidity in firms can be solved if a convergent framework from series of frameworks since Keynes (1936) evolves. In other words, precautionary demand for money / liquidity is the trigger for the variations in the level of liquidity of firms. Their model centered on the impact of liquidity on real policies of companies. They noted that the relevance of liquid derivatives has been accentuated by the global financial crises (GFC) of 2008 – 2009. Cash, being the real liquid resource, is most sought by firms in that it is the surest way of meeting up future investment needs.

Abioro (2013) studied the relationship between cash management and the performance of manufacturing firms in Nigeria. The study employed descriptive survey techniques in investigating only Cadbury Nigeria Plc. Both secondary and primary sources are used in collecting data. The study population consists of the entire staff of the case study. The study used judgmental sampling method to select 100 personnel. 45 structured questionnaires proved to be the only ones effective for collation and analyses. The study covered a 10 year period (2002 – 2011). It depicted that effective cash management depends on the firm's choice for short – term finances and investment choice of collection and disbursement techniques, cash forecasting strategy and investment culture as regards idle cash. Moreover, the study averred that a statistically significant relationship exists between the key variables: cash management and firm performances when subjected to Pearson's correlations.

Manyo and Ogakwu (2013) researched the influence of liquidity on return on assets (ROA) of 46 quoted firms listed on the Nigerian Stock Exchange for the period 2000 to 2009. Employing ex post

facto approach, they regressed liquidity, the independent variable against ROA and proved the existence of a significant positive relationship between these two key variables. Marginally, liquidity increases ROA by 2.8%. Moreover, there exist a significant positive / direct relationship between one of the control variables growth and ROA. Size of firm has no significant effect on the dependent variable.

Owolabi and Obida (2012) examined the relationship between liquidity management and profitability of 12 manufacturing firms listed on NSE for a five year period 2005 to 2009. Relevant information is extracted from the annual reports of the sampled firms. Using descriptive statistics including measures of dispersion and central tendencies and accounting ratios, the study depicted strong relationships between the independent variables: Credit policies, cash flow management and cash conversion cycle and the dependent variable: corporate profitability. Specifically, they found that nine out of the twelve firms depicted a significant positive level of liquidity management and by extension, a direct relationship between the liquidity management and profitability. The study used credit policies, cash flow management and CCC as proxies for liquidity.

Egbide, Uwuigbe and Uwalomwa (2013) studied the impact of liquidity management on profitability of manufacturing companies using a sample of 30 firms listed on the Nigerian Stock Exchange (NSE). The study employed the purposive sampling technique in collating data / information from the annual financial reports of the sampled firms for the 5 year period: 2006 to 2010. Methodology used relied heavily on the approach adopted in previous studies including Eljelly (2007). Results from partial correlation and regression analyses which are aligned revealed that liquidity management has no statistically significant relationship with profitability of manufacturing firms in Nigeria. The latest local studies explored were done in 2013

**METHODOLOGY**

**Research Design**

The study adopted the *Ex post facto* because the data that will be sourced from financial publications such as the Nigeria Stock Exchange (NSE) Fact Book and Daily Official List for the study. The variables which the researcher intends to use include; Firm performance (FPM) which is the dependent variable and cash control (CC), risk assessment (RA) and inventory control are the independent variables. The data was sourced from annual report covering the period of six years between 2014 and 2019. The study relied on data from such official sources for accuracy and standardization.

**Model Specifications**

The equations and variables used for the study given below are adaptation and modifications from the work of Safdar, Hazoor, Toheed and Ammara (2013) studied the effect of internal control on firm performance. This study then tested this model in Nigeria.

**The model is stated thus:**

$$ROA = f (CC, RA)$$

**Where,**

ROA = Return on Asset

Cash Control

RA = Risk Assessment

**The model was adopted and modified by the inclusion of Net Asset per Share**

$$ROA = f (CC, RA, IC)$$

**The Econometric Equation Form of the Model is:**

$$ROA = \beta_0 + \beta_1 CC + \beta_2 RA + \beta_3 IC + \mu - - - - -1$$

**Where,**

ROA = Return on Asset

CC= Cash Control

RA = Risk Assessment

IC= Inventory Control

$\beta_0$  and  $\mu$  are the constant and error term respectively while  $\beta_1$  and  $\beta_3$  are the coefficient of dividend policy on shareholders wealth in Nigeria.

### 3.6 Method of Analyses

To analyze the data, the study will use statistical tools involving the Descriptive Statistics, correlation analysis and the Ordinary Least Square Regressions (OLS) for predicting the effect of internal control on firm performance: evidence from selected firms in Nigeria. The significance of various explanatory variables will be tested by computing t-values. To determine the proportion of explained variation in the dependent variable, the coefficient of determination  $R^2$  will be worked out. The significance of  $R^2$  has will also be tested with the help of F-Value.

#### Data Analysis

##### Descriptive Statistics

The descriptive statistics result shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and the Jarque-Bera (JB) statistics (normality test). Table 4.1 below, provides the summary of the descriptive statistics of the selected firms.

**Table 1 Descriptive Statistics**

	ROA	CC	RA	IC
Mean	0.586085	0.333737	0.463986	32.61932
Median	0.610000	0.360000	0.440000	32.06000
Maximum	1.190000	1.200000	0.760000	58.83000
Minimum	0.400000	0.010000	0.230000	19.01000
Std. Dev.	0.279916	0.195375	0.104344	8.801715
Skewness	0.673540	0.936864	1.037788	0.749291
Kurtosis	3.476098	5.109342	4.069279	3.195801
Jarque-Bera	23.90015	93.20049	63.82646	26.74281
Probability	0.000006	0.000000	0.000000	0.000002
Sum	164.6900	93.78000	130.3800	9166.030
Sum Sq. Dev.	21.93889	10.68798	3.048536	21691.65
Observations	30	30	30	30

Source: Descriptive Statistics Result Using e-view 8

The descriptive statistics result shows a mean value of 0.59 for return on assets. The mean value shows that measuring performance using return on assets. The result shows that on the average the selected firms used in the study has positive performance on the average within the period under study. The difference between the mean, maximum and minimum shows that some of company's incurred losses within the period.

Cash control which shows the extent the manager uses and control resources at their disposal in achieving the firm's goals and objectives. The result shows a mean value of 0.33, maximum value of 1.20 and minimum value of 0.01. This shows that only some of the management is effective in the utilization of the firm's resources effective.

The result shows that the average of risk assessment is 0.463986, maximum value of 0.760000 and minimum value of 0.230000.

The Jarque Bera and its probability which test the level of normality of the data shows that return on asset, cash control, risk assessment and inventory control are normally distributed at one percent significant level.

##### Correlation analysis

In examining the relationship among the variables, the study employed the Pearson correlation analysis; the results are presented in table 4.2

**Table 2 Correlation Analysis**

	ROA	CC	RA	IC
ROA	1.000000	0.211078	0.282136	0.097123
CC	0.211078	1.000000	0.097123	0.282136
RA	0.282136	0.145651	1.000000	0.211078
IC	0.097123	0.100016	0.310316	1.000000

Source: E-view 8

The findings from the correlation analysis table, shows that return on asset have a positive relationship with cash control, risk assessment and inventory control. The positive relationship

between return on asset and cash control, risk assessment and inventory control indicates that the more the cash control the higher the return on asset. Again an increase in the level of risk assessments will improve the firm performance. the result of the correlation analysis indicate the existence of positive relationship between return on asset and inventory control, the implication is that an increase in the level of inventory control will enhance the firm performance of the selected companies  
In checking for multi-co linearity the study noticed that no two explanatory variables were perfectly correlated. This indicates the absence of multi-co linearity problem in the model used for the analysis and also justifies the use of the ordinary least square.

**The Ordinary Least Square Regression**

In this section, we provide the benchmark test of the significance of the independent variables in explaining the effect internal control on firm performance in Nigeria

Dependent Variable: ROA

Method: Least Squares

Date: 02/10/21 Time: 15:27

Sample: 2014 2019

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.667553	0.824890	10.809263	0.0260
CC	0.164745	1.010577	2.163021	0.0058
RA	-0.518247	0.672745	1.770347	0.2183
IC	0.068816	0.039042	2.762604	0.0302
R-squared	0.712561	Mean dependent var		4.676947
Adjusted R-squared	0.655073	S.D. dependent var		7.153306
S.E. of regression	6.953540	Akaike info criterion		6.888364
Sum squared resid	1208.793	Schwarz criterion		7.165910
Log likelihood	-100.7696	Hannan-Quinn criter.		6.978837
F-statistic	19.349696	Durbin-Watson stat		2.971283
Prob(F-statistic)	0.006525			

**Source: Eviews 9.0**

The results from coefficient (0.667553) and the probability value (p. = 0.0260< 0.05) showed that return on asset (ROA) which is the dependent variable (Y) is positive: This means that if all the independent, (explanatory) variables (X) are held constant, return on asset (ROA) as a dependent variable (Y) will grow by (0.667553) units in annual-wide basis.

**Cash Control:** The results from coefficient (0.164745) and the probability value (p. = 0.0058 < 0.05) showed that cash control had positive and significant effect on return on asset (ROA). This means that the null hypothesis is rejected while the alternate hypothesis: Cash control has positive and significant effect on firm performance in Nigeria, is accepted

**Risk Assessment:** The results from coefficient (0.518247) and the probability value (p. = 0.0183<0.05) showed that risk assessment has positive and significant effect on return on asset (ROA). This means that the alternate hypothesis two: Risk assessment has positive and significant effect on firm performance in Nigeria, is accepted.

**Inventory Control:** The results from coefficient (0.068816) and the probability value (P. =0.0302< 0.05) showed that inventory control has positive and significant effect on return on asset (ROA). This means that the alternate hypothesis three: Internal control has no positive and significant effects firm performance in Nigeria, is accepted.

The coefficient of determination ( $R^2$ ) = 0.712561 showed that about 71% of changes in the on the firm performance in Nigeria is accounted for by the level of internal control in Nigeria. This implies that internal control variables is one major contributor on firm performance in Nigeria

The F-statistics (19.349696; p. < 0.05) indicated that all the variables of the model (internal control variables) have significant effect on firms performance in Nigeria. The Durbin Watson statistics (2.971283) showed that there was no autocorrelation in the model employed.

### **Test of Hypotheses**

To test the hypotheses, the statistical significance of the individual parameters is used to test the hypotheses.

#### **Hypothesis One**

Ho<sub>1</sub>: Efficient cash control has no positive and significant effect on firm performance in Nigeria

Hi: Efficient cash control has positive and significant effect on firm performance in Nigeria.

Since the probability value is less than 5% ( $0.0058 < 0.05$ ), the null hypothesis is rejected while the alternative hypothesis is accepted implying that: Efficient cash control has positive and significant effect on firm performance in Nigeria

#### **Hypothesis Two**

Ho<sub>2</sub>: Risk assessment has no positive and significant effect on firm performance in Nigeria

Hi: Risk assessment has positive and significant effect on firm performance in Nigeria

Since the probability value is less than 5% ( $p = 0.0183 < 0.05$ ), the null hypothesis is rejected while the alternative hypothesis is accepted implying that risk assessment has positive and significant effect on firm performance in Nigeria

#### **Hypothesis Three**

Ho<sub>3</sub>. Internal control has no positive and significant effects firm performance in Nigeria

Hi. Internal control has positive and significant effects firm performance in Nigeria

Since the probability value is less than 5% ( $0.0302 < 0.05$ ), the null hypothesis is rejected while the alternative hypothesis is accepted, implying that Internal control has no positive and significant effects firm performance in Nigeria

### **CONCLUSION**

The regression result indicates that cash control, risk assessment and internal control has positive and significant effects firm performance in Nigeria. The study thus concludes that internal control has positive effect on firm performance in Nigeria

### **RECOMMENDATIONS**

In line with the objectives and findings, we recommend that cash control has positive and significant effect on firm performance in Nigeria. The study recommends that management of quoted firms in Nigeria should formulate policy that will be geared toward enhancing cash control

Our finding showed that risk assessment has positive and significant effect on firm performance in Nigeria. Thus increasing firm risk assessment will significantly affect firm performance in Nigeria. The study recommends that management of quoted firms in their drive to enhance firm performance; management should increase and improve risk assessment.

The finding shows that internal control has positive and significant effects firm performance in Nigeria. The study thus recommends that management of quoted firm should improve in internal control

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