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## EFFECT OF CREATIVE ACCOUNTING PRACTICES ON THE PROFITABILITY OF LISTED INDUSTRIAL GOODS COMPANIES IN NIGERIA

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**ABSTRACT:** *The study examined the effect of creative accounting practices on the profitability of listed industrial goods companies in Nigeria. The study specifically examined the effect of revenue and sales manipulation, manipulation of depreciation figures and methods and manipulation of interest and development costs on profitability of listed industrial goods companies in Nigeria. The study adopted the Agency theory as the anchor theory while panel data was extracted from the annual financial statements of the companies for the period 2016 to 2020. Regression analysis was used for test of hypotheses. The study found that: revenue and sales manipulation has significant positive effect on the profitability of industrial goods companies in Nigeria ( $\beta=0.821$  and  $t=6.09$ ); manipulation of depreciation figures and methods has negative and insignificant effect on profitability with  $\beta=-0.103$  and  $t=-1.39$ ; and manipulation of interest and development costs has negative and insignificant effect on profitability ( $\beta=-0.387$  and  $t=-0.60$ ). The study concluded that creative accounting has significant effect on the profitability of the company as a unit change in creative accounting contributes to about 72% ( $R^2$ ) of the changes in the profitability of the company, mostly in negative terms. It recommended that; regulators should make stricter accounting rules and laws to tighten the loopholes that management usually exploit in manipulating sales and revenue figures in the financial statements; companies should endeavour to adhere strictly to the code of corporate governance to ensure transparent switching between accounting policies in order to curb manipulation of depreciation figures and methods; and auditors of industrial goods companies should increase checks on cost to unravel the issues of over and under stated cost which are creative in nature.*

**Key Words:** Creative accounting, industrial goods, depreciation index, asset quality index

## 1. INTRODUCTION

Today's financial accounting reports focus on providing relevant, reliable and timely financial information to stakeholders who use it to make critical financial decisions (Imo, 2022). Financial accounting reports are meant to provide financial information that enables stakeholders and other users of such information to make informed decisions. In as much as the practice of accounting generally requires the preparation and presentation of financial reports to be done in uniform language and style, Siyanbola, Benjamin, Amuda and Lloyd (2020) opined that current accounting practice allows a degree of choice of policies and professional judgement in determining the methods of measurement, criteria for recognition and even the definition of the accounting entity. The exercise of this choice can involve creative accounting which is a deliberate non-disclosure of information and manipulation of accounting figures, thereby making the business appear to be more profitable and financially stronger, or otherwise, than it is supposed to be (Siyanbola, Benjamin, Amuda & Lloyd, 2020).

Users of financial statements in both developed and developing countries have become increasingly concerned with the spate of high-profile corporate collapse and financial frauds that heralded the dawn of 21<sup>st</sup> century generally perceived to be majorly caused by creative accounting (Nuryana & Surjandari, 2019). As stated by Olaoye and Adewumi (2018) the wave of these corporate failures was reported among renowned companies like Enron in the United States of America, where the company, which rose to the peak as America's seventh largest company in just fifteen 15 years, was discovered to have used creative accounting and manipulated the company's profit. In Jordan, Khaleel, Riyad, Abeer and Ahmad (2023) stated that industrial companies were specifically identified to have employed creative accounting practices and manipulated their financial statements in order to maintain the value and financial performance of their shares in the stock market and maintain their competitive position and continuity. Similarly, Abdurrahmani and Doğan (2021) found that creative accounting practices in Kosovo are becoming more frequent due to gaps and weaknesses in management and audit quality.

Back home in Nigeria, Imo (2022) averred that creative accounting practice has been increasing in recent years in many companies in the country to attract unsuspecting investors, or obtain undeserved accounting-based rewards by presenting an exaggerated misleading or deceptive state of financial affairs. Imo (2022) further stated that it is evident that the extent of window-dressing of companies' financial statements in Nigeria has greatly violated all known ethical standards of the accounting and auditing profession. Furthermore, there are many reports of price manipulation, profit overstatement, and accounts falsification by some dubious stewards of Nigerian firms which rendered the financial statements ineffective (Essien & Ntiedo, 2018). There is also the general perception as observed by Siyanbola, Benjamin, Amuda and Lloyd (2020) that the business failures of the past decades including Leventis Plc. and Cadbury Nigeria Plc, which revealed a significant overstatement of financial figures over several years, have also been closely associated with corporate governance failure as a result of creative accounting.

Creative accounting is considered a synonym for deceptive accounting (Yadav, 2013), which facilitates the financial reporting goals established by management. Creative accounting can also be referred to as earnings management, "aggressive" or "innovative" or "cosmetic" or "deceptive" accounting (Idris, Kehinde, Ajemunigbohun & Gabriel 2012). The fundamentals of creative accounting were laid down in the seminar work on accounting, "De Arithmetica" written by Italian mathematician, Luca Pacioli in 1494.

Creative accounting refers to the deliberate altering of financial information to either mislead investors on the underlying economic status of a company or to gain some contractual benefits that depend largely on accounting numbers (Siyanbola, Benjamin, Amuda & Lloyd, 2020). Essien and Ntiedo (2018) asserted that accruals are the most important creative accounting instruments that are used by managers to either increase or decrease reported income reflected in current cash flows, and a great deal of managerial discretion goes into their construction. Companies' managers, under different motivations, used to improve their companies' image by applying several techniques of earnings manipulation, which helped them in preventing reporting losses or low earnings. Prominent among this technique is creative accounting, which often misleads users of financial information (Malik, 2015).

Profitability is described as a measurement of how well a firm uses its assets from its primary mode of business to generate income (Dioha, Mohammed & Okpanachi, 2018). The term is also used as a general measure of a firm's overall financial health over a given period of time. Due to loopholes of accounting regulations, companies could produce accounts, which flattered their profitability. Essien and Ntiedo (2018) noted that the practice of creative accounting misleads users of financial statements, adversely affects the transparency and quality of accounting information in the financial statements thus climaxing to decrease profitability.

The foregoing suggests that creative accounting usually occurs when companies in order to present high profitability levels, deliberately manipulate their financial performance figures, usually within the letter of the rules of law and standard accounting practices, but deviating from the spirit of those rules and certainly not providing the true and fair view that accounts are supposed to. This manipulation is carried out through various ways including revenues/sales manipulation; manipulation of depreciation figures and methods; aggressive capitalization and extended amortization policies; and misreported assets and liabilities; among others, in order to inflate (or deflate) figures relating to profits and profitability (Siyanbola, Benjamin, Amuda & Lloyd, 2020). Khaleel, Riyad, Abeer and Ahmad (2023) further stated that preparers of financial information (the finance director or financial controller, for example) are often under pressure from senior management team to present a certain level of profitability, a situation which apparently brings about the adoption of creative accounting. Consequently, examining the effect of creative accounting practices and profitability is not only timely but necessary. To this end, this study investigates the effect of creative accounting practices on the profitability of listed industrial goods companies in Nigeria.

## **1.2 Statement of the Problem**

The rate of fraudulent and window dressing accounting practices around the world is alarming. Such concern has brought about many intense contentions on the subject of creative accounting practices and profitability of listed companies. A plethora of literature exists on creative accounting but which findings produced mixed results. A handful of scholars have carried out studies on creative accounting practices and profitability globally (Al-Natsheha, and Al-Okdeha, 2020; Nyabuti 2015) and in Nigeria in particular (Hauwa, Ocheni & Jamila, 2017 and Osemene, Muritala, & Olawale, 2014). However, literature on the effect of creative accounting on profitability of listed industrial goods companies in Nigeria, to the best of my knowledge, seems to be scanty. Paucity of research in this area in third world economies and mixed results produced by previous studies calls for more empirical research on the subject.

Secondly, it is observed that most of the previous studies on the topic tended to dwell more on broad measures of creative accounting such as aggressive earnings and income smoothing as found in Hauwa, Ocheni and Jamila (2017) and Imo (2022) among others. Specific

aspects, such as revenue and sales manipulations, manipulation of depreciation figures and methods and interest and development cost manipulation, which supposedly present a clearer picture of creative accounting were been conspicuously ignored by these studies. This creates the need to examine these specific variables of creative accounting as they affect profitability.

Thirdly there has been a recurrent wave of global economic meltdown which has impacted greatly on Nigerian companies. These economic upheavals have made companies operating in the country to face tough challenges in meeting up to their financial obligations as evidenced in persistent employee layoffs and pay cuts among several companies; a condition which many analysts believe presents a good avenue for management of companies to adopt creative accounting practices to portray high levels of profitability of their companies (Imo, 2022). The problem becomes more pronounced given the fact that many companies in the country still reports profits and appear profitable amid these challenges. This creates the need for an empirical study to determine the effect of creative accounting on profitability in Nigeria.

Fourthly, disparity in cultural background and differences between third world economies and advanced economies limits the level of generalisation that previous studies could be applied. Thus, the need for an indigenous empirical study on the topic in Nigeria becomes imperative.

Finally, recent studies in Nigeria are mostly carried out in banking and other sectors with probably none in listed industrial goods companies. Industry specific characteristics may affect generalisation hence the need for further studies. It is against this backdrop that the present study is set to examine the effect of creative accounting practices on the profitability of 14 listed industrial goods companies in Nigeria Exchange Group (NGX) as at 31st December, 2020 covering a period of five (5) years spanning from 2016-2020. The choice of this period is in cognizance of the recent amendments and exposure drafts to the IFRS which fully became applicable in 2016 despite the year 2012 mandatory adoption of the standards by listed companies as well as the need to use recent data.

### **1.3 Objectives of the Study**

The main objective of this study is to examine the effect of creative accounting practices on the profitability of listed industrial goods companies in Nigeria. The study specifically seeks to:

- i. determine the extent to which revenue and sales manipulation affect the profitability of listed industrial goods companies in Nigeria.
- ii. examine the extent to which manipulation of depreciation figures and methods affect the profitability of listed industrial goods companies in Nigeria.
- iii. ascertain the extent to which manipulation of interest and development costs affect the profitability of listed industrial goods companies in Nigeria.

## **2.0 LITERATUREREVIEW**

### **2.1 Theoretical Framework**

Theories reviewed in this paper include: Agency theory and stakeholders theory.

#### **2.1.1 Agency Theory**

The agency theory developed by Jensen and Meckling in 1976 is concerned with the nature of principal-agent relationship. The agency theory is a management and economic theory that attempts to explain relationships and self-interest in business organisations. It describes the relationship between principals/agents and delegation of control. It explains how best to organise relationships in which one party (principal) determines the work and which another party (agent) performs or makes decisions on behalf of the principal (Jensen & Meckling, 1976).

This theory seeks to ensure that agents (executives, managers) act in the best interests of the principals (owners, shareholders) of an organization. Agency theory addresses the relationship where in a contract 'one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent' (Jensen & Meckling, 1976). This happens because of the separation of ownership and control, when the owner of the company or the board of directors (the 'principals') have to employ managers ('agents') to run the business and need to monitor their performance to ensure they act in the owner's interest.

The main concern of agency theory as proposed by Jensen & Meckling (1976) is how to write contracts in which an agent's performance can be measured and incentivized so that they act with the principal's interests in mind. Based on the idea that employees (at any level) will have diverse goals, two main agency problems are identified, which is: how to align the conflicting goals of principals and agents, and how to ensure agents perform in the way principals expect them to. These problems can occur when executives or managers make self-interested decisions and manipulate financial information, perhaps by moving numbers around or by 'creative accounting' to present better performance figures. The solution to either of these agency problems is to ensure that executives or managers act in the best interests of the owners by increasing the amount and quality of information available to principals and making senior executives part owners of the firm through their compensation packages. The relevance of the agency theory to this study is that under the theory, cost not ethics provides the only restraint on the self-interest behaviour of the agent. Since agents in this situation are constrained to impress investors and lenders and they are interested in high benefits, the agents are compelled to give an impressive report against their ethical values. Furthermore, differences in interpretation of generally accepted accounting practices and standards create loopholes for the promotion of self-interest which could be well utilized by managers of companies in manipulating the financial statements through creative accounting.

#### **2.1.2 Stakeholder Theory**

Stakeholder theory is accredited to Edward Freeman who states that any identifiable group or individual who can affect the achievement of an organization's objectives, or is affected by the achievement of an organization's objectives is a stakeholder (Freeman & Reed, 1987). Stakeholder implies that it is not only the investors or the shareholders who are affected by the company's objectives. It then means that the achievement and misfortune of the organizations affect all the stakeholders. The stakeholders include (shareholders, employees, creditors, political groups, government, trade unions, communities, and customers). The

number of stakeholders tends to have increased since the corporate governance became prominent following the collapsed of some prominent and high profile companies and the belief that companies with good and powerful corporate governance tends to perform better than companies with weak corporate governance.

It then means that the success or failure of companies does not depend on stakeholders with explicit contracts and financial interest but it rather depend on all the stakeholders with explicit and implicit contracts. Stakeholder theory is attributed to Freeman when he introduced stakeholder theory in 1984. Freeman contended that the firm do exists primarily with the aim of serving and synchronizing the collective interest of those who benefit directly or indirectly from the activities of the firm (Schilling, 2000). The going concern and corporate objective of profit maximization and long term sustainability of the firm require managers more sensitive approach to ensure the interest and benefit of all the entire stakeholders (Schilling, 2000).

Therefore, the stakeholder theory is relevant to this study because when the interest of the capital market participants and other stakeholders are protected, conflict of interests and such missing link in both divide between managers and the expected performance is minimalized rather than resulting to opportunistic earnings.

## **2.2 Conceptual Framework**

The major concepts of this study are examined in this section with a view to aiding understanding of the existing relationship between the various dimensions of the independent variable and the dependent variable. The concepts examined here include: creative accounting and profitability

### **2.2.1 Creative Accounting**

The term “Creative Accounting” was first originated with the movie “The Producers” by Mel Brooks in 1968. Since then, different definitions have emerged from different authors to express their views about what creative accounting means to them.

Siyanbola, Benjamin, Amuda & Lloyd, (2020) opined that creative accounting involves the manipulation of both the company’s statements of financial performance and financial position. Accounting manipulation is the deliberate alteration and falsification of financial information to satisfy the management with the intention to deceive users either by creating conceivable position of the firm to outsiders or satisfying the expectation of owners of the organisation. According to Paolone and Magazzino (2014), accounting manipulation can be categorised into two separate groups: creative accounting (by maintaining the legitimacy of accounting practices) and accounting fraud (by violating the accounting policy and principles or earnings manipulation). Creative accounting is also referred to as income smoothing, earnings management, earning smoothing, financial engineering and cosmetic accounting (Siyanbola, Benjamin, Amuda & Lloyd, 2020).

Farlex (2012) described creative accounting as the practice of recognizing revenue as well as manipulation of expenses in a way that makes a company appear better than it actually is, while still conforming to the Generally Accepted Accounting Principles (GAAP). In support of this definition, Ali, Butt and Tariq, (2011) submitted that creative accounting practices are done with the intention of making the financial statements appear better and financially stronger, on one hand, or financially weaker, on the other hand, depending on management’s desire.

In the words of Kamau (2015) creative accounting involves the modification of accounting figures to what the organizations managers and director's desire by exploiting the loopholes of accounting rules that exist as well as overlooking some rules. This is usually displayed by window dressing and off-balance sheet financing. Excessive practice of creative accounting has contributed to corporate failure of companies worldwide. Creative accounting is practiced by various companies in the world including Nigeria.

Apedzan (2014) averred that creative accounting means modifying financial disclosures with the motive of private gain done through involvement in the process of external financial reporting. It takes the form of smoothing of earnings, antagonistic smoothing of incomes and distortion of financial statements. In a similar vein, Shah (2011) further explained that creative accounting is the intentional influence exerted on financial reported figures to suit the impression of managers to stakeholders by a view other than the actual performance or financial position of the company by applying accounting knowledge and discretion within the jurisdiction of laws set up by accounting regulatory bodies.

On the contrary, Odia and Ogiedu (2013) defined creative accounting as a way used by professionals to make companies competitive in their business environments by coming up with creative ideas and deducing opportunities to their advantage portraying imprudence often. This is affected by factors such as integrity, moral values and sense of decision, confidence, training and discipline of the accountants, who are key role players, hence considered an ethical issue. Some of the opportunities used by companies for creative accounting include use of accounting estimates, principles and choices allowed by accounting rules and exploit loopholes in the accounting regulations. Creative accounting is also manifested through manipulation of the balance sheet, managing of results from adjustments in accounting policies or methods, cost capitalizing, structuring of ownership, cash flows, leasing and transactions of converting loans into securities, big bath restructure costs, imaginative acquisitions accounting or misuse of materiality concept to validate inaccuracy, the definition which the study adopts.

Nadim (2013) observed that creative accounting is practiced in order to match the interest among parties. Various parties in the society seek to maximize their own interest. Managers wish to pay less tax possible and to report huge profits so they can earn good bonus. Shareholders interest is to earn good dividend, while employees wish to get improved salary and job security, while government wants to collect taxes. Richard, Myrtle and Jack (2008), therefore concluded that creative accounting is any accounting method that fails to conform to the GAAP or prescribed standards and guidelines.

Drawing inference from the authors above, the concept "creative accounting" is examined under two important viewpoints: positive and negative. From a positive viewpoint, creative accounting connotes invention of accounting principles and techniques to recognize changes in economic, social, political and business environments and recognizes genuine changes in accounting practice. On the other hand (negative viewpoint), creative accounting means undesirable practices which assimilates unethical elements for attracting providers of the capital by presenting an misleading and deceptive state of a certain firm's affairs. Generally, creative accounting is badly treated, as a negative creation, designed to prepare the financial statements in order to respond managers' requirements regarding the company's financial position and performance. Therefore, the financial statements are rather misrepresentation of the company's performance than true reporting. The negative treatment of creative

accounting does not exclude the positive one as such there is a very thin and frail line between creative accounting and fraud.

### **2.2.2 Profitability**

Corporate profit is one of the most closely followed economic indicators. Profits are source of retained earnings, providing much of the funding for investment in plant and equipment that raises productive capacity. Profits are also frequently used in measuring the rate of return on investment and the relationship between earnings and equity valuation. Profits may also be used to evaluate the effects of changes in policy on corporations or profits or in economic conditions.

According to Olang (2017), profitability can be defined as the ability of a firm to earn profits. Although closely related, profitability and profit are different concepts. Profits are the funds that remain after a firm has settled all its expenses and are useful in refinancing its operations (Olang, 2017). Therefore, if a firm has enough profits it may not have to seek external finance. Profitable companies can also obtain debt at a lower interest rate since they are viewed as less risky. However, high profit is not an indication of organizational efficiency. Profitability measures productivity of capital employed and operational efficiency of a firm. Profitability is an overall measure of a firm's economic success and the competence of its management. Low profitability is not an indication of organizational sickness.

Rami (2015) defined profitability as the ability of the company to earn profit. Profit is determined by deducting expenses from the revenue incurred in generating that revenue. The amount of profit can be a good measure of the performance of a company, so we can use profitability as a measure of the financial performance of a company, as well as, profitability is the promise for a company to remain a going concern in the world of business.

Tulsian (2014) sees profitability as a term composing of two words namely: 'Profit and Ability'. The term Profit refers to the total income earned by an enterprise during a specified period of time while the term Ability indicates the power or capacity of a business entity to earn profits. The ability of a concern also denotes its earning power or operating performance. Sometimes, the terms 'Profit' and 'Profitability' are used interchangeably. Despite being closely related to and mutually interdependent, profit and profitability are two different concepts. Profit is an absolute term, whereas profitability is a relative concept.

While profit refers to the total income earned by the enterprise during the specified period of time, profitability refers to the operating efficiency of the enterprise (McMahon 1995). It is the ability of the enterprise to make profit on sales. It is the ability of enterprise to get sufficient return on the capital and employees used in the business operation. As McMahon, (1995) rightly notes "profit is the test of efficiency and a measure of control, to the owners a measure of the worth of their investment, to the creditors the margin of safety, to the government a measure of taxable capacity and a basis of legislative action and to the country profit is an index of economic progress, national income generated and the rise in the standard of living", while profitability is an outcome of profit.

Therefore, profitability is referred to as the ability of a given investment to earn a return from its use. Rehman, Khan and Khokhar, (2014) posits that every business firm is most concerned with its profitability. According to them, profitability is the ability to make profit from all the business activities of an organisation, company, firm or an enterprise. They suggest that it shows how efficiently the management can make profit by using all the resources available in



the market. That one of the most frequently used tools of financial ratio analysis is profitability ratios. They also state that profitability measures management efficiency in the use of organisational resources in adding value to the shareholders.

Profitability is the primary goal of all business ventures, without profitability the business will not survive in the long run. Therefore, the measurement of current or past profitability and projecting future profitability is very important. Profitability is the most important measure of the success of the business and a business that is not profitable cannot survive. Consequently, profitability of firm plays an important role in the structure and development of firm because it measures the performance, success of the firm and enhances the reputation of the firm (Nousheen & Arshad, 2013). Profitability provides a summary measure of corporate success or failure and thus serves as an essential indicator of economic performance. Consequently, a business that is highly profitable has the ability to reward its owners with a large return on their investment.

Profitability of a firm is the ability to generate revenue in excess of cost in relation to the company's capital base (Victor, Samuel & Eric, 2013). Owolabi and Obida (2010) defined profitability to mean; the ability to make profit for all business activities of an organization. They further described it as management efficiency in the use of organizational resources in adding value to the business. Profitability is a way of measuring economic success of a firm in terms of capital invested in the firm Roxana, 2010. Hence, a sound and profitable company is best able to absorb negative shocks and contribute to the stability of the nation's economy in general.

Profitability is determined by in different ways including return on asset, return on capital employed and return on equity among others. This study however adopts Return on Assets (ROA) as it best measure profitability in the long term.

### **2.3 Review of Empirical Studies**

Al-Natsheha, and Al-Okdeha, (2020) researched on the impact of creative accounting methods on earnings per share. Their study was aimed at investigating the impact of creative accounting methods called "Earnings Management and Income Smoothing on earnings per share in the Jordanian industrial companies. The model of Francis, LaFond, Olsson & Schipper (2004) was adopted to measure income smoothing. In order to achieve the objectives of the study, the analytical quantitative approach was adopted. The study community consisted of the 57 industrial companies listed on the Amman Stock Exchange (ASE). As for the study sample, 36 companies were selected according to the target sample method in the period from 2008 to 2017. The results showed that there was a statistically significant impact of using the creative accounting methods on earnings per share in the industrial companies listed on the ASE, and there was an impact of practicing both earnings management and income smoothing on earnings per share in the industrial companies listed on the ASE. The results also showed that 27.8% of the industrial companies practiced earning management, while 47.2% of the industrial companies practiced income smoothing. The gap left by the study is that it focused on earnings per share which is only one performance indicator to measure the effect of creative accounting on firm's profitability. The present study seeks to broaden the scope by examining the effect of the independent variable on the general profitability of the company.

Ugiliwabo and Mulyungi, (2018) examined the effect of creative accounting on shareholders' wealth: a case of companies listed on Rwanda Stock Exchange (RSE). The objectives of the study were: to determine the effect of income smoothing on shareholders' wealth of

companies listed on the RSE, to examine the effect of accelerated depreciation on shareholders' wealth of companies listed on the RSE and to determine the effect of tax avoidance on shareholders' wealth of companies listed on the RSE. The research adopted a mixed research design which is a combination of descriptive design, causal design and cross-sectional design. The target population comprised of top management of public limited companies; that is the CEO, directors, top managers and accountants. A sample of 32 individuals was drawn from the public companies at RSSE using purposive sampling. A multiple linear regression technique was used to analyze the relationship between creative accounting practices and shareholders wealth. Quantitative approach through the use of questionnaires was adopted to help in the collection of primary data for analysis purposes. The secondary data were collected from RSE handbook relevant text books, finance journals, financial statements and the website of public limited companies that were sampled. Data were analyzed for descriptive and inferential statistics using SPSS version 21. Descriptive statistics such as tables, graphs, charts and percentages analysis were used for presentation of data. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in tax avoidance will lead to a 1.32 increase in shareholders wealth; a unit increase in income smoothing will lead to a 0.81 decrease in shareholders wealth, a unit increase in accelerated depreciation will lead to a 1.83 increase in shareholders wealth. This infers that accelerated depreciation contribute more to shareholders wealth of companies listed at the RSE followed by tax avoidance. At 5% level of significance and 95% level of confidence, tax avoidance had a 0.03 level of significance; income smoothing showed a 0.022 level of significant, accelerated depreciation showed a 0.000 level of significant hence the most significant factor is accelerated depreciation. The study recommended that local investors should embrace shareholder value concept as an excellent model for value creation to increase insider trading meant to boost investor confidence and sense of security as guaranteed by mutual interests in growth and shareholder value. The use of multiple regression in data analysis makes the findings of the study highly reliable. However the study was carried out in Rwanda and it comprised all listed companies. This becomes a problem because the economic conditions in that country may differ with those in Nigeria and industry related factors might come into play thereby creating a gap which the present study aimed to bridge.

Nyabuti (2015) investigated creative accounting practices in Kenya and their effect on the financial performance of companies listed on the Nairobi Stock Exchange. They surveyed a sample of 30 companies using purposive sampling. Their study took into consideration avoidance of tax, accelerating of depreciation and smoothing of incomes as part of the key creative accounting practices among publicly listed companies in Kenya. They found out that a strong relationship exists between the variables (creative accounting and financial performance) among listed companies in Kenya. They also discovered that most companies applied creative accounting practices aggressively leading to their failures and collapse. The main shortcoming of Nyabuti's study is that the population from which the sample of 30 companies was selected is not specified. This casts doubts on the reliability of the findings as the sample might not be a true representation of the universe.

In another study, Akenbor and Ibanichuka (2015) conducted an empirical investigation of creative accounting practices in the Nigerian banking industry. The survey method of research design was adopted and the primary method of data collection was employed. The data generated for this study were analysed through mean scores while the stated hypotheses were statistically tested with Z-test. The study however revealed that the major reason for creative accounting practices in Nigerian banks is to boost the market value of shares; users of accounting information are adversely affected by the practice of creative accounting)

accounting principles and rules should be streamlined to reduce diversities of professional judgment in financial reporting. The study variables show that the survey is relevant as it borders of creative accounting. The gap observed, however, is that the study dwelt more on investigating the motives of creative accounting and as such major creative accounting practices were not explored.

Osemene, Muritala and Olawale (2014) examined the impact of creative accounting on firm performance in Nigeria using econometric analysis method on annual data of seven financial institutions over the period of 2006-2011. The results from Levin, Chin Chun unit root test shows that all the variables were non-stationary at levels. The results from the partial least square showed that the proxies for creative accounting such as non-performing loan is positively related to return on equity and dividend pay-out while gearing ratio and net income before tax is negatively related to both return on equity and dividend pay-out. The study recommended that the need for a stronger regulatory regime with effective enforcement mechanisms for ensuring compliance with accounting and auditing standards cannot be over emphasized. This should improve quality of financial statements as misstatements of financial statements would attract prosecution of offenders. Thus, the enthronement of a more stringent regulatory regime with effective enforcement mechanism will ensure compliance with accounting and auditing standards.

Yadav (2013) examined the effect of creative accounting on the performance of the company which uses these techniques to manipulate their accounts to show desired results. The study analysed involvement of different professionals in creative accounting like accountant, lawyers and bankers using content analysis. The study findings revealed that companies in trying to present a rosy picture of their performance decide to employ different deceptive instruments which help them indulge in creative accounting. The study also found that corporate governance can play an important role in financial reporting of the company because financial report shows the state of affairs of the company and investors take decision on the basis of financial report of the company. So it is necessary that financial report should show “true and fair view” of the company. The study also recommended that professional and managers ethical responsibility should be clearly spelt out to identify who will be responsible for the failure of the company. The gap in the study is that creative accounting practices used were not specified and as such it is difficult to determine which of the creative accounting practices actually influenced performance.

### **3.0 METHODOLOGY**

The ex-post facto research design was adopted for this study. It is most appropriate for this study because the study is concerned with documentary investigation of creative accounting on profitability and all the variables under the study are already in existence in secondary data form.

The population of the research comprised 14 industrial goods companies listed on the Nigerian Exchange Group (NGX) as at December, 2020. The study employed census technique which allowed for the adoption of the whole population as sample. The sample size for the study was therefore fourteen (14) industrial goods companies listed on the Nigerian Exchange Group (NGX) as at December, 2020. The data for the study were extracted from the financial statements of listed industrial goods companies for the period 2016 – 2020 as obtained from the Nigerian Exchange Group.

### 3.1 Variable Definition and Model Specification

**Return on Assets (ROA):** Return on asset is a financial ratio that shows the percentage of profit a company earns in relation to its assets employed in generating the profit. It is calculated by dividing profit after tax scaled by total asset.

**Revenue and Sales Manipulation:** Sales in Receivables Index (SRI) provides a good estimation of revenue and sales figures manipulation. The SRI is the ratio of sales in receivables in the first year of analysis which shows normal figures or the base (year t) to the corresponding measure in year t – 1. It is mathematically expressed as follows;

$$SRI = \frac{\text{Receivables}_t / \text{Sales}_t}{\text{Receivables}_{t-1} / \text{Sales}_{t-1}}$$

Where

- SRI = Sales in Receivables Index  
 Receivables<sub>t</sub> = receivables in the base year  
 Sales<sub>t</sub> = sales in the base year  
 Receivables<sub>t-1</sub> = rate of change in receivables in other years under study  
 Sales<sub>t-1</sub> = rate of change in sales in other years under study,

**Manipulation of depreciation figures and methods:** To measure manipulation of depreciation figures and methods, the research employs Beneish's (2004) depreciation index (DEPI). The DEPI is the ratio of the rate of depreciation in year t – 1 to the corresponding rate in year t. A DEPI greater than 1 indicates that the rate at which assets are being depreciated has slowed - raising the possibility that the company has revised upward the estimates of assets' useful lives or adopted a new method that is income increasing. The depreciation index (DEPI) is given as:

$$DEPI = \frac{\text{Depreciation}_{t-1} / (\text{Depreciation}_{t-1} + \text{PP\&E}_{t-1})}{\text{Depreciation}_t / (\text{Depreciation}_t + \text{PP\&E}_t)}$$

where,

- DEPI = depreciation index  
 Depreciation<sub>t</sub> = depreciation in the base year  
 PP&E<sub>t</sub> = properties, plant and equipment in the base year  
 Depreciation<sub>t-1</sub> = rate of change in depreciation in other years under study  
 PP&E<sub>t-1</sub> = rate of change in properties, plants & equipment in other years under study

**Interests and Development Cost Manipulation:** This study adopts the Asset Quality index (AQI) as a proxy of interests and development costs manipulation. Asset quality in a given year is the ratio of non-current assets other than property, plant and equipment (PP&E) to total assets and measures the proportion of total assets for which future benefits are potentially less certain (Beneish (2004)). The AQI is an aggregate measure of the change in asset realization risk. If the AQI is greater than 1, the company has potentially increased its involvement in cost deferral. An increase in asset realization risk indicates an increased

propensity to capitalize, and thus defer, costs. The asset quality index (AQI) is the ratio of asset quality in year  $t$  to asset quality in year  $t - 1$  and the formula is given as:

$$AQI = \frac{1 - (\text{Current Assets}_t + PP\&E_t) / \text{Total Assets}_t}{1 - (\text{Current Assets}_{t-1} + PP\&E_{t-1}) / \text{Total Assets}_{t-1}}$$

where,

AQI	=	assets quality index
Current Assets <sub>t</sub>	=	current assets in the base year
PP&E <sub>t</sub>	=	properties, plant and equipment in the base year
Total Assets <sub>t</sub>	=	total assets in the base year
Current Assets <sub>t-1</sub>	=	rate of change in current assets in other years under study
PP&E <sub>t-1</sub>	=	rate of change in properties, plants & equipment in other years under study
Total Assets <sub>t-1</sub>	=	rate of change in total assets in other years under study

### 3.2 Model Specification

The model for this study is a multiple regression model. The panel methodology was adopted since the data to be analysed has panel attributes. The model is as follows:

$$ROA_{it} = \beta_0 + \beta_1 RSM_{it} + \beta_2 MDFM_{it} + \beta_3 IDCM_{it} + e_{it}$$

Where:

ROA <sub>it</sub>	=	Return on Assets
RSM <sub>it</sub>	=	revenue and sales manipulation
MDFM <sub>it</sub>	=	manipulation of depreciation figures and methods
IDCM <sub>it</sub>	=	interest and development cost manipulation
e <sub>i</sub>	=	error item
β <sub>1</sub> – β <sub>3</sub>	=	Coefficient of the Independent Variables.

### 3.3 Techniques for Data Analysis

The descriptive statistics was employed to compare variables numerically and to ascertain a pattern in the data set. The descriptive statistics includes the mean, standard deviation, minimum and maximum values.

In addition, the inferential statistics (panel regression method) was employed to explore the relationship between creative accounting and financial performance. The combination of time series with cross section data made possible by the use of panel data regression technique, usually improve the degree of freedom and quantity of data which may not be possible when using only one of them (Gujarati, 2003).

To carry out statistical analysis using regression technique, some diagnostic econometric tests were done to avoid spurious regression results. The tests included heteroscedasticity, multicollinearity, correlation and normality tests.

## 4.0 RESULTS AND DISCUSSION

### 4.1 Descriptive Statistics

The descriptive statistics describes the data in terms of the mean, standard deviation, the maximum and the minimum. By implication, the data presentation aspect is covered by this section since the data is large and cannot be presented here. The table below shows the descriptive statistics.

**Table 1: Descriptive Statistics**

Var	Obs	Mean	Std. Dev.	Min.	Max.
IDCM	70	0.554	0.209	0.107	0.965
MDFM	70	0.567	0.190	0.107	0.856
RSM	70	6.830	0.332	6.019	7.879
ROA	70	6.928	0.322	6.235	7.944

Source: STATA Output, 2022

Table 1 above shows the results of the descriptive statistics; the result indicated that the total number of observations were 70. This implied that data were collected from a sample of 14 companies for a period of 5 years. The table further indicated that IDCM has a mean of 0.55 with a standard deviation of .209 with a minimum of 0.107 and maximum of 0.965 implying fair rate of variability in interest and development cost of the companies. The table also indicated that MDFM has a mean of 0.567 and deviated from the mean by 0.190 with the minimum of 0.109 and a maximum of 0.856. This implies a five year average of 56% of depreciation figures with low rate of variability. RSM has a mean of 6.830; the deviation was 0.33 and the minimum and maximum were 6.019 and 7.879 respectively. ROA has a mean of 6.928, a standard deviation of 0.322 and a maximum and minimum of 7.944 and 6.235 respectively. This indicates an average of 692% in ROA figures over the period of five years studied with fair variability in the figures. These imply that revenue and sales manipulation, manipulation of depreciation figures and methods and capitalization of interest and development cost are capable of predicting the dependent variable.

**Table 2: Regression results**

Var.	Coef.	t-values	p>/t/
IDCM	-0.387	-0.60	0.551
MDFM	-0.103	-1.39	0.170
RSM	0.821	6.09	0.000
R-square	-	-	0.7198
Prob.	-	-	0.0000

Source: STATA Output, 2022

The regression results in table 6 above indicate a model p-value of 0.000 which is an indication that the regression model was fit for interpretation. This was because the p-value is less than 0.05 above which would have shown that the error margin is greater than 5%. Also, that  $R^2$  which represents the coefficient of determination was 0.7198 which was an equivalent of 77% implying that within the study period, changes in creative accounting constitutes about 72% of the changes in the profitability of the companies investigated. Details of the results showed that IDCM has negative (-0.387) and insignificant (0.551) effect on ROA. In addition, MDFM has negative (-0.103) and insignificant (0.170) effect on ROA. Furthermore, RSM had positive and significant (0.000) effect on ROA.

## Test of hypotheses

The hypotheses of this study were tested by comparing the calculated t-value (student t-test) with the critical value of  $\pm 1.96$ . The decision rule was to accept the null hypothesis if the calculated t-value falls within the region of non-rejection of the null hypothesis of  $\pm 1.96$  otherwise to reject the null hypothesis.

**Ho<sub>1</sub>: Revenue and sales manipulations have no significant effect on the profitability of listed industrial goods companies in Nigeria.** This hypothesis was rejected because the calculated t-value was 6.09 which falls outside the region of non-rejection of the null hypothesis implying that RSM has significant effect on the profitability of industrial goods companies in Nigeria.

**Ho<sub>2</sub>: Willful manipulation of depreciation figures and methods does not significantly affect the profitability of listed industrial goods companies in Nigeria.** This hypothesis was accepted because the tabulated critical value of  $\pm 1.96$  was more than the calculated t-value of -1.39. This means that willful manipulation of depreciation figures and methods has no significant effect on ROA.

**Ho<sub>3</sub>: Interest and development cost manipulations have no significant effect on profitability of listed industrial goods companies in Nigeria.** This hypothesis was accepted because the calculated t-value fall within the region of non-rejection of the null hypothesis of  $\pm 1.96$ .

## 4.3 Discussion of Findings

Revenue and sales manipulations has significant effect on profitability. This finding is consistent with the finding of Malik and Liu (2011); Lekaram (2014), Jung, Shin and Yuen (2020). The significant effect of revenue and sales manipulations on profitability may be connected to the fact that if the revenue figures are changed or the sales value is manipulated the value of profitability in terms of returns on assets is a function of the ratio of the sales value to the total assets of the firm. The management of the firm may do this to impress the shareholders of their performance or to show stakeholders that they are performing well. It could also be because the management wishes to acquire loan on behalf of the company. This aligns with agency theory which borders on the conflicting interest of the agents (management) and their principal as the agents usually have diverse goals. This study recommends that auditors must ensure a critical check on the revenue and sales figures to ensure it represents realities that are a function of the desired production revenue. This means that auditors should match revenue value with total production to ascertain the authenticity of the revenue value.

Willful manipulation of depreciation figures has negative and insignificant effect on profitability. This implies that an increase in willful manipulation of depreciation figures will reduce profitability of the firm however, the reduction may be insignificant. The possible reason for this act may occur when management has huge taxes to pay or dividends to pay to the shareholders and the money available is not enough due to earnings smoothening, the management may decide to go for accounting choices that may reduce profitability. This may be avoided if auditors insist on consistency in the use of accounting policies. The confounding issue here is that the code of corporate governance of 2016 approves the use of apply or explain which are principle based codes. It is recommended that government should revert to the use of comply or else which is a rule based principle to avoid easy switching of accounting policies.

Interest and development cost has insignificant effect on profitability however the nature of relationship is in the opposite direction meaning that an increase in interest and development cost manipulation may reduce profitability. This result is in line with that of Nuryana and Surjandari (2019), Nyabuti (2015) Ogbonna and Ebimobowei (2012) who also found similar results. The negative relationship between the two variables may be viewed from the fact that a unit increase in the interest and development cost would definitely reduce profitability. This is because costs are naturally a reduction from profit value. However, in creative accounting, there are tendencies that the costs were inflated against the normal cost of interest and development to achieve so predetermined motives. It is recommended that auditors of these companies must match the costs with revenue to see if the cost are under stated or over stated. If this is done, the actual cost may be determined and creative accounting may be controlled.

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

It was found from the analysis of data that within the study period, changes in creative accounting constitute 72% of the changes in the profitability of the companies investigated. It was specifically found that;

- i. Revenue and sales manipulation has significant positive effect on profitability with  $\beta=0.82$ ,  $t=6.09$ , and  $p<0.05$
- ii. Manipulation of depreciation figures and methods has negative and insignificant effect on profitability ( $\beta=-0.10$ ,  $t=-1.39$ , and  $p>0.05$ )
- iii. Manipulation of interest and development cost has negative and insignificant effect on profitability of the companies studied as indicated by  $\beta=-0.39$ ,  $t=-1.60$ , and  $p>0.05$

Based on the analysis of data and the findings arising from the analysis, it was concluded that creative accounting has significant effect on the profitability of the firm since its changes contributes to about 72% of the changes in the profitability of the companies. Revenue and sales manipulations impact profitability owing to the fact that if the revenue figures are changed or the sales value is manipulated the value of profitability in terms of returns on assets changes as a function of the ratio of the sales value to the total assets of the firm. Also, an increase in willful manipulation of depreciation figures methods reduces the profitability of the firm however, the reduction may be insignificant. Interest and development cost has insignificant effect on profitability however the nature of relationship is in the opposite direction meaning that an increase in interest and development cost manipulation may reduce profitability. Although manipulation of depreciation figures and methods as well as interest and development cost capitalization are found to have insignificant effect on profitability but creative accounting practices generally have significant effect on profitability of the industrial goods companies investigated.

### Recommendations

- i. Based on the findings, it was recommended that regulators should make stricter accounting rules and laws to tighten the loopholes that management usually exploit in manipulating sales and revenue figures in the financial statements.
- ii. Companies should endeavour to adhere strictly to the code of corporate governance to ensure transparent switching between accounting policies in order to curb manipulation of depreciation figures and methods.



- iii. Auditors of industrial goods companies should increase checks on cost to unravel the issues of over and under stated cost which are creative in nature.

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