INCOME SMOOTHING, EARNINGS MANAGEMENT AND THE CREDIBILITY OF ACCOUNTING INFORMATION

ABSTRACT

This study investigated the effect of income smoothing and earning management on the credibility of accounting information of listed manufacturing companies in Nigeria. Data used were extracted from the annual reports and accounts of the selected sixteen (16) firms for a period of 10 years (2010-2019) while content analysis was adopted in measuring accounting information credibility. Multiple linear regression analysis (OLS) method was adopted for the analysis. The result revealed that income smoothing and earnings management had statistically insignificant effect on fundamental qualitative characteristics (FQC), while income smoothing and earnings management had statistically significant effect on enhancing qualitative characteristics (EQC). However, the study obtained that income smoothing and earnings management had positive and significant effect on the credibility of accounting information of the listed manufacturing companies in Nigeria. The study opined that managers should ensure that accounting information is credible, possesses desirable accounting information qualities of relevance, and faithful representation, also verifiable, comparable, understandability, and timeliness.

1. INTRODUCTION

Credibility of accounting information is highly desired because it has the potency and ability to add value to investment decision made, using credible accounting information since it is reliable and dependable. The lending credibility theory suggested that the primary function of the auditors is to add value and credibility to the financial statement prepared by the management. Credibility of accounting information is a priceless and inestimable commodity that can be offered by the auditor to the public. In other words, the value of accounting information is absolutely void and insignificantly valueless if the credibility of its information contents is lacking (Jung, Soderstrom, & Yang, 2013). Credibility and reliability of accounting numbers enhance users’ confidence in using the financial statements, it is capable of adding value to investment decisions and a reflection of the absence of information asymmetry, a hallmark of transparency and accountability and virtue that every audited financial
statement should possess (Feng et al., 2019). Reliability in this context is all about undistorted complete information that is free from errors, manipulations and a very true representation of the underlying economic realities of the company's financial and non-financial position, portraying a true and fair honest opinion of an auditor after exercising professional duty and care.

Prior studies have documented that the case of income smoothing and earnings management are a pervasive phenomenon, that either income smoothing or earnings management is capable of having undue pressure on the credibility of accounting numbers (Ali & Zhang, 2015; Dong, Fisman, Wang, & Xu, 2021). According to Gaio and Raposo (2011) equity financing is a significant motivation for corporate earnings management and moreover, in the time of initial public offer (IPO), additional issues and rights issues, the managers are intensely under pressure to resist manipulation of earnings (earnings management) to convey a healthy-looking and false accounting information to innocent investors and other accounting information users (Akpanuko & Umoren, 2018; Godsell, Welker, & Zhang, 2017).

On the other hand, income smoothing equally employs accounting techniques to flatten uneven income fluctuations from one accounting period to the next (Chen, Qin, Tan-Soo, & Wei, 2019). Prior studies have also shown that corporate managers indulge in this act possibly so that investors are motivated to pay a premium for stock with a stable and predictable earnings trend as opposed to volatility trend pattern of stocks being regarded as riskier for risk-averse investors (Chen et al., 2019; Feng et al., 2019). Therefore, managers make conscious efforts to flatten the curves and adjust the earnings to impress investors. Goetzmann, Kim, Kumar, and Wang (2014) argued that income smoothing is not illegal when the process follows generally accepted accounting principles (GAAP), since the essence is to move revenue and expenses from one particular accounting year's end to another. This is different from the view of Gross, Königsgruber, Pantzalis, and Perotti (2016) who posited that though it may seem legal following GAAP, the motive behind income smoothing is fraud and cannot pass the acid test of credibility. The motive of income smoothing is fraud, tax evasion and to attract ignorant investors and creative business strategy devoid of fairness, and true representation of the accounting information.

Both income smoothing and earnings management are discretionary in nature and product of management actions to have the desired accounting information. Chen et al. (2019) submitted that income smoothing is a subset of earnings management, since the latter is an intentional intervention to have what is intended and not the true resemblance of operational activities, while income smoothing tries to even out income by the managers with the intention of showcasing fewer risks and the volatility of earnings over a period (Luo, 2017; Sheng & Liu, 2020).

There seems to be a global widespread dissatisfaction with the level of credibility and usefulness of accounting information by users of financial statements and sadly, the users now perceive that audit services no longer add value, rather suggest that a financial statement is a mere less coherent set of regulatory prescriptions and compliances rolling out in junks of financial statements that lack credibility. The dissatisfaction is buttressed by empirical pieces of evidence consistently documented that the financial statements are unabatedly decreasing in the capability of its intended purpose expected of a credible financial information. It has been alleged that the financial statement reports are inexact, misleading, and not a reflection underlying economic performances and realities of what is obtainable in companies audited and given clean health condition (Luo, 2017). The deficiencies of accounting information are quite disturbing. Beyond this, there is a growing and distress concern and disappointment being exhibited by the users of financial statement, the inconsistencies and lack of quality in accounting information and financial reporting, the relevance, faithful representation, and timeliness of financial statement are gradually losing its credibility and usefulness, as investors and other stakeholders are showing concern when earnings can persistently reflect the actual result of the operational activities of corporate organizations.

Specifically, the act of income smoothing and earnings management negates the originality of factual accounting information and has become increasingly pervasive (Kim, Lee, & Reun Yoo, 2020); It impedes credibility
of financial statements (Klepáč & Hampel, 2016) negative impact on stock price as results has a negative effect on investors (Kovalova & Michalikova, 2020); it affects factual income recognition and devalues investment decisions (La Rosa, Bernini, & Verona, 2020) has the potential risk of loss of corporate reputation and could lead to undesirable and unnecessary future litigations (Lin, Li, Wang, & Yang, 2020) leads to loss of confidence (Liu, 2020); and it is an unethical resourceful tool of corporate deceit and misleading of the public, investors, shareholders, and other interested stakeholders. Consequent to a distasteful, and deceitful concealment nature of income smoothing and earnings management, and possible effects, this study is aware of possible effects, and financial scandals, the magnitude of these effects remain unknown, hence need for further investigation and extending the frontiers in literature. In view of the foregoing, the study proposed an investigation of the effects of income smoothing and earnings management on the credibility of accounting information.

In this new era, the world is on the fast lane of data-driven business activities that are in dire need of credibility of accounting information. Undoubtedly, there is a vast credibility gap, unethical inconsistencies, material misstatement and the disparity of the expected and available accounting information. This study is motivated to extend the global debate, fronting for the credibility of accounting information, routing for a solution to the concern of credibility of accounting information complexities and reputational damage resulting from income smoothing and earnings management practices. Consequently, this study proposed the following hypotheses:

\[ H_0: \text{Income smoothing has no significant effect on the credibility of accounting information.} \]
\[ H_0: \text{Earnings management has no significant effect on the credibility of accounting information.} \]
\[ H_0: \text{Income smoothing \& Earnings Management do not significantly affect the credibility of accounting information.} \]

2. LITERATURE REVIEW

2.1. Review of Concepts

2.1.1. Credibility of Accounting Information

Accounting information is defined as credible if the financial statements containing accounting information is credible and free from misstatements and fraud (Sheng & Liu, 2020). Users of financial statement are desirous of reliable and credible financial reports and this adds value to decisions made using them. Shareholders, investors, and other stakeholders expect that financial statements should reflect the underlying economic realities of the true position of the state of affairs of the company. The golden expectation of financial information is to provide information about the reporting company that is useful to existing and potential investors, lenders, and other stakeholders in making decisions about the company. Globally, accounting information is adjudged credible if it has the following fundamental and enhancing characteristics.

2.2. Fundamentals Qualitative Characteristics

**Relevance:** Relevance is the ability of accounting information to be useful and make a difference in the decisions made by users if it has predictive value, confirmatory value or both. According to Al-Okaily, BenYoussef, and Chahine (2020), the relevance of accounting information is affected by its nature and its materiality. While Chen et al. (2019) opined that information is deemed to be of material nature if by any means, omitting it or misstating it could impact negatively to decision that users make on the basis of financial accounting information about a specific reporting company.

**Faithful Representation:** A piece of information is said to have faithful representation when it represents economic phenomena in words, contents, and numbers (Chen et al., 2019). Basically, to be useful, accounting information must represent relevantly phenomena and as well must faithfully represent what it purports to represent. For information to be a faithful representation, it is (i) complete, reflecting all necessary information including descriptions and explanations; (ii) It must be neutral, without bias in the representation, and not be
manipulated in any way possible to influence the decisions of users; (iii) It must be free from errors, or omissions and errors made in the process by which the financial information was produced.

2.3. Enhancing Qualitative Characteristics

**Comparability:** According to Chen et al. (2019) comparability is the ability of the accounting information to enable users to identify and understand similarities in and at the same time differences among items. Basically, accounting information of any organization is considered useful if it can naturally be compared with similar accounting information about other company and with similar accounting information about the same company for another period (Gottardo & Moisello, 2019).

**Verifiability:** Verifiability aids or assures financial accounting information users that the information content faithfully represents the underlying economic phenomena it intends to represent. It simply means that different and knowledgeable observers could easily reach a consensus that a particular depiction is a faithful representation (Chen et al., 2019).

**Timeliness:** Liu (2020) posited that timeliness means having accounting information available to decision-makers in time and at the appropriate moment to be capable of impacting their decisions. Information becomes less useful if there is a delay in reporting.

**Understandability:** Lin et al. (2020) opined that accounting information should present information clearly and concisely, and make it understandable. Financial statement contents in most cases are inherently complex and are not made easy for every stakeholder to understand. Matters should not be left out of financial statements simply due to their difficulty, rather a well informed and diligent users may sometimes need the aid of analysts or advisor to comprehend the information context of accounting information.

2.3.1. Income Smoothing

According to Lyu, Yuen, and Zhang (2017), income smoothing is a process where managers of corporate entities use accounting technique to level out an uneveled and fluctuations of earnings from one accounting period to the next using accounting principles. It is used to reduce wide fluctuations, reductions and cushion high performance expectation of shareholders (Caballero & Krishnamurthy, 2008). Previous studies have advanced that the opportunistc activities of income smoothing refers to corporate managers self-interested behaviors, as managers have the incentives to engage in income smoothing in pursuance of personal goals like bonus-compensational plans and targets, closing gaps of created by managerial incompetence and in meeting up expectations, particularly where there is divergence of actual income from shareholders and other stakeholders expectations (Hamm, Jung, & Lee, 2018). In addition, the issue of corporate governance, institutional pressures and investors' protection, these lead to ensuring rosy picture of the underlying economic performance of the financial activities of the company (Cahan, Liu, & Sun, 2008). While Chung, Lee, Lee, and Sohn (2015) posited that motivation for income smoothing is relatively correlated to earnings quality and being motivate either by opportunism or in formativeness.

Prior studies have expressed diverse opinions about income smoothing and earnings management. Feng et al. (2019) noted that earnings management is a very popular term used by management to manage earnings. But it does not simply refer to any illegal activities by management to manage earnings. Managers can achieve earnings from accounting choices or by operating decisions. Managers can manage earnings because they have flexibility in making accounting or operating choices.

2.3.2. Earnings Management

Meeting shareholders' expectations and coping with the pressure of capital market prospects are some of the incentives motivating earnings management. Earnings management happens when managers intentionally use
prescribed accounting methods and accounting principles to influence a change in accounting information to achieve an intended desired financial statement or influenced contracts based on reported earnings (Sheng & Liu, 2020). The outcome of earnings management is to have a rosy and attractive financial statement, but this at the end misleads the users of such information, as the information is no longer the original. Dong et al. (2021) documented that some of the intentions behind earnings management include meeting capital markets' expectations, outdo its strong competitors, contract incentives, and in most cases avoiding political costs and tax evasion purposes of aggressive tax planning. In most corporate organizations, there has been evidence that higher reported earnings are positively correlated to higher stock prices.

Researchers have advanced possible reasons or justifications why managers engage in income smoothing and/or earnings management, to reduce tax burden since there are higher earnings has a direct correlation with higher tax obligations, and profit shifting through transfer pricing, this is common among multinational corporations companies; an incentives for higher management bonus reward; way off of possible salary increase request; investors' confidence and relationship with the managers could improve when robust earnings are shown in the financial statement (Chang, Graff, Gross, & Neidell, 2019; Chen et al., 2019).

2.4. Theoretical Underpinning

In pursuance of possible effects of income smoothing and earnings management on credibility of accounting information, the lending credibility theory as proposed by Watts and Zimmerman (1979) and its ideologies are alignment with credibility of accounting information and with what every stakeholder expects from the usage of financial statements (Brijesh, 2014). According to Watts and Zimmerman, the shareholders and users of a financial statement may not exercise complete trust on the financial report prepared by the agents (managers) considering possibilities of bias predisposition tendencies (Diana, Bogdana, Feleaga, & Popa, 2014). Credibility of accounting information is obviously required considering possibilities income smoothing and/or earnings management practices (Nonaka & Toyama, 2003). The demand for audit services became apparent to add value to investment decisions and infuse much needed confidence that shareholders and other interested stakeholders are in dire need (Lyu et al., 2017; Prerna & Anurodh, 2015).

In view of the conflict of interest and chances that the manager may have the incentives of pursuing their own interest, since privileged information are at the managers’ disposal which the shareholders do not have, as such the shareholders and other stakeholders are facing the risk that the managers may likely act in variance to what shareholders expect, resulting in moral hazards and therefore cannot verify the skills and capabilities of the managers resulting in adverse selection (Lynn Jr & Robichau, 2013). Information asymmetry enhances manipulations and insider dealings and equally akin to income smoothing and earnings management opportunities. It is natural that auditors be engaged to lend credibility to the financial statement prepared by managers for the consumption of the shareholders and other users. There are expectations of divergence of objectives and goals between that of manager and that of the shareholders that could motivate managers to engage in sub-optimal goals pursuance and opportunistic practices of distorting figures and facts (McColgan, 2001; Runco & Albert, 2010).

Generally, it is the genuine and perceived expectations of the public that audit services and an umpire report of an independent auditor are required for a true and fair view opinion, as expressed by the auditors, is a true reflection of the contextual realities of accounting numbers in the published financial statements of corporate organizations (Adelopo, 2011). These expectations of the public are validly a necessity based on the fact that auditors would diffuse traces of discretionary activities that may impede the credibility of financial statement (Runco, 2004). The auditors in all sense responsibility are expected to reciprocate this public trust and exercise professional independence, transparent, professional duty and care so as not to compromise this trust (Belal, Spence, Carter, & Zhu, 2017).
2.5. Empirical Review

The study of Ubogu (2019) examined the impact of creative accounting on the shareholders’ wealth of selected banks using qualitative research approach. The results of the regression analysis conducted revealed that there was a significant relationship between creative accounting practice and decision making of the selected banks; creative accounting had a high impact on shareholders’ wealth, the share prices and equally affects other investment decisions of investors. Essien and Ntiedo (2018) conducted a survey research to investigate the effects of income smoothing surrogated with creative accounting on the credibility of accounting reports and accounting information disclosures in providing the needed information for investments in decision making. They deduced that earnings management and other accounting creative activities contributed to over 90% of untrue and unfair financial reporting of companies’ operational activities giving false financial statements. The study asserted that the majority of creative accounting activities in form of income smoothing, earnings management and creative accounting were motivated by greed and unethical intention to deceive unsuspected innocent financial statement users, investors and shareholders and these activities increase the level of financial failures in the many corporate organizations. Consistent with the studies of Essien and Ntiedo (2018) and that of Ahmed (2017); Ubogu (2019) study has shown that creative accounting has undue stress on the image and reputation of corporate bodies who engage in the unethical practice of creative accounting.

Adisetiawan and Surono (2016) studied the impact of earnings management on accounting information on business decisions. The study employed secondary data obtained from published financial statements of 822 selected listed companies in the Indonesian Stock Exchange for a period of 3 years (2013–2015). The study explored both short-term discretionary (STD) and long term discretionary (LTD) as measures of earnings management; and the discovered that earnings and book value of equity do not lose their value relevance as indicators for assessing the financial performance of companies. Furthermore, that earnings management had no significant effect on the value relevance of earnings and the book value of corporate equity especially when earnings management was carried out as a short-run activity or long-run discretionary accruals. Contrarily, Ubogu (2019) and Essien and Ntiedo (2018) refuted the findings of Adisetiawan and Surono (2016).

Ubesie, Nwankwo, and Nwankwo (2020) carried out an investigation on the effect of earnings management on the financial performance of consumer good companies in Nigeria. The study was an ex-post facto research, using a simple regression analysis of pooled data sourced from the published financial statement of three selected consumer good companies in Nigeria. The dependent variables were measured using three proxies of total assets, equity, and total liabilities of the companies, while the independent variable, earnings management was proxied as net profit. The result revealed that earnings management had no significant effect on the financial performance of consumer goods companies in Nigeria. Ubesie et al. (2020) suggested that management of consumer goods should improve earnings management activities toward improving the financial performances of the companies.

Apparently, the result of the study of Ubesie et al. (2020) was consistent with findings of other studies in support of more equity funding by companies as one of the solutions of earnings management, it was reported that having adequate funding as well as competent and efficient managers; earnings management activities will become unattractive and unnecessary (Godsell et al., 2017; Jung et al., 2013). Evidence has shown that income smoothing and earnings management practices are used to cover-up managerial incompetence and insufficient capital funding (Feng et al., 2019).

Oraby (2017) examined the effect of earnings management as a management strategic activity on the credibility of accounting information relevance on a selected 113 corporate organizations listed in the Saudi Stock Exchange. The study used data obtained from the sampled companies’ financial statements for a period of 5 years (2012–2016), using balanced panel data set. The analysis was carried out using inferential statistics of panel data specifications. The fixed effect of the panel regression was adopted, which revealed that earnings per share was value relevant and that accounting-based accruals as a measure of earnings management had a negative effect on the value relevance of
accounting information and on the share price. The result revealed that earnings management strategies had a negative influence on the value relevance and credibility of financial statements.

The result of the study of Oraby (2017) was consistent with the position of prior studies that had highlighted the negative impact of earnings management strategies. According to the positions of Akpanuko and Umoren (2018), Linck, Netter, and Shu (2013), earnings management activities are illegal and deceitful in all forms, and investment decision using discretionary earnings may not add value to investment decision relying on them and could have litigation tendencies. Managers and corporate bodies who indulge in earnings management to increase earnings may not be too smart for too long and investors, shareholders, and the general the public cannot be fooled forever (Akther & Xu, 2020).

3. METHODOLOGY

The study measured credibility of accounting information using a standardized score for the fundamental qualitative characteristics (Relevance and Faithful representation) and enhancing qualitative characteristics (Verifiability, Understandability, Comparability and Timeliness) by adding the scores on the related items and dividing by the total number of items. In addition, the study measured income smoothing using firm-level standard deviation of income (earnings) NIBEit over the standard deviation of cash flow from operation, CFOit all lagged by TAit and measured earnings management using discretionary accruals. The populations consisted of listed 66 manufacturing companies in Nigeria and purposively selected 16 as sample subjects for a period of 10 years (2010-2019). Data were extracted from published financial statements of the selected companies, while inferential statistics was explored to analyze the regression models developed for the panel data specification.

3.1. Model Specification

Empirically, the model in a functional form is specified as:

\[ Y = f(X_i) \]  

Equation 1 is the general functional relationship depicting the relationship between the dependent variable (credibility of accounting information) and the independent variables (Income Smoothing and Earnings Management); where \( Y \) = Dependent Variable (Credibility of Accounting Information proxy; a standardized score for the qualitative characteristics; Relevance, Faithful representation, verifiability, Understandability, Comparability and Timeliness by adding the scores on the related items and dividing by the total number of items).

\( X_i \) = Independent Variable (Income Smoothing (ISM) and Earnings Management (EMGT) proxies).

The model specifications of the regression equations are as follows:

\[ CRETD_{it} = \alpha + \beta_1 ISM_{it} + \beta_2 EMGT_{it} + \varepsilon_{it} \]  

\[ FQC_{it} = \alpha + \beta_1 ISM_{it} + \beta_2 EMGT_{it} + \varepsilon_{it} \]  

\[ EQC_{it} = \alpha + \beta_1 ISM_{it} + \beta_2 EMGT_{it} + \varepsilon_{it} \]

Equation 2 represents the regression (predictive) model, estimating the effect of income smoothing and earnings management on credibility of accounting information.

Equation 3 is a regression model, testing the formulated hypothesis which states that income smoothing and earnings management insignificantly affect fundamental qualities of accounting information.
Equation 4 depicts the regression model, estimating the impact of income smoothing and earnings management on enhancing quality of accounting information.

In Equations 2 – 4,

\[ \alpha = \text{constant}, \quad \beta_1, \beta_2 = \text{regression coefficients}, \quad i = \text{Cross section}, \quad t = \text{Time series}, \quad CRED = \text{Credibility of Accounting Information proxy; an aggregate standardized score for the qualitative characteristics, Relevance, Faithful representation, verifiability, Understandability, Comparability and Timeliness by adding the scores on the related items and dividing by the total number of items. Specifically, } \]

\[ FQC = \text{Credibility of Accounting Information measured based on Fundamental Qualitative Characteristics (a score computed by adding the scores on the related items under Relevance and Faithful representation and dividing by the total number of items), while } EQC = \text{Credibility of Accounting Information measured based on Enhancing Qualitative Characteristics (a score computed by adding the scores on the related items under verifiability, Understandability, Comparability and Timeliness and dividing by the total number of items). Hence } ISM = \text{Income Smoothing, and EMGT = Earnings Management (EMGT).} \]

3.2. Measurements of Variables

3.2.1. Credibility of Accounting Information

Many researchers have shown that credibility of accounting information is a sign of earnings persistence, while others measure credibility of accounting information based whether the firms accounts has been audited or not. This school of thought posited that the only possible means of enhancing credibility of accounting information is the presence of auditing services of an independent auditors (Ali & Zhang, 2015). It has shown that shareholders and other accounting financial users are not ignorant of privileged information of managers, which shareholders do not have, aware that managers of corporate organization can be motivated to pursue personal interest and possibility of game rule of conflict of interest, and therefore the only credibility accounting information acceptable globally is that fundamental qualitative characteristics (FQC) of relevance and faithful representation, and enhancing qualitative characteristics (EQC) of verifiability, comparability, understandability and timeliness (Anderson & Kostet, 2016). Following the study of Anderson and Kostet (2016), this study measured the credibility of accounting information using fundamental qualitative characteristics (FQC) and enhancing qualitative characteristics (EQC).

3.2.2. Income Smoothing and Earnings Management

Prior literature had measured income smoothing and earnings management using the same parameter, the idea is that income smoothing is an attempt to reduce abnormality variations in income or earnings as the case may be, to the extent allowed under approved and sound accounting methods and principles, while earning management follow the same discretionary earnings pattern (Chen, Chen, & Su, 2001; Chen, Hope, Li, & Wang, 2011; Dechow & Schrand, 2004; Huang, Lyu, & Lin, 2018). Many others have used different measures for income smoothing and earnings management. Gaio and Raposo (2011) and Aguguom and Salawu (2018) had measured income smoothing using a different parameter as the firm-level standard deviation of income (earnings) NIBEit over the standard deviation of CFOit all lagged by TAIi. Consequently, this study proposed to measure income smoothing using Equation 5:

\[ ESMOTH_{it} = \frac{\sigma_{\frac{NIBEi_t}{TAi_{i+1}}} (T)}{\sigma_{\frac{CFOi_t}{TAi_{i-1}}}} \]
Equation 5 was employed as a measure of income smoothing where; $NIBE_{it} = \text{the firm } i's \text{ net income before extraordinary items of firm } i \text{ in year } t; CFO_{it} = \text{ cash flow from operation of firm } i \text{ in year } t; \text{ while } TA_{it-1} = \text{ cash total asset of firm } i \text{ in year } t - 1$

Prior studies have measured earnings management using discretionary accruals. The study of McNichols (2000); Amara (2017) and Nwaobia, Kwarbai, and Olamide (2016). These studies posited that earnings management implied changes in the sales revenue and property, plant and equipment (PPE) are important in forming expectations about current accruals over and above the effects of operating cash flows (CFO). All variables scaled by the total assets.

$$TAC_{it} = \beta_0 + \beta_1CFO_{it-1} + \beta_2CFO_{it} + \beta_3CFO_{it+1} + \beta_4\Delta REV_{it} + \beta_5PPE_{it} + \mu_{it}$$ (6)

Equation 6 specified how the figures for earnings management was derived, that is, the error of the regression estimate of the Equation 6 was employed as the value of earnings management

In Equation 6;

$TCA_{it} \text{ = Total current accrual: The firms’ accruals in year } t \text{ which equals the current assets change in year } t \text{ minus current liability changes, minus the changes of cash equivalent changes in year } t \text{ plus change of short-term liability with interest in year } t. \text{ All scaled by the total assets.}$

$\Delta CA = \text{ Change in current assets.}$

$\Delta Cash = \text{ Change in cash and cash equivalent.}$

$\Delta CL = \text{ Change in current liabilities.}$

$\Delta STDBT = \text{ Change in short term debt.}$

$CFO = \text{ Firms operating cash flow.}$

$\Delta \text{REV} = \text{ Change in revenue.}$

$PPE = \text{ Property, plant and equipment.}$

$$CFO_{it} = NIBE_{it} - (\Delta CA_{it} - \Delta Cash_{it}) - (\Delta CL_{it} - \Delta STDBT_{it})$$ (7)

Equation 7 is a mathematical equation used in computing the values of Firms operating cash flow (CFO) for the sampled firms over the years of the study.

The study expected that income smoothing and earnings management practices impact on the credibility of financial statements, hence the a priori expectation is represented thus $\beta_1 - \beta_2 < 0 = \text{ Negative.}$

4. PRESENTATION AND DISCUSSIONS OF RESULTS

This section presented and discussed the results of the analysis carried out in order to investigate the effect of income smoothing and earnings management on the credibility of accounting information. Descriptive summaries of the variables of interest and the degree of association among the variables were conducted prior to the estimation of the regression parameters in the models developed for this study. Given the cross-section and time-series nature of the data, the main empirical approach used in this study is a panel regression approach.

4.1. Summary Statistics and Correlation Matrix

In this subsection, the focus was on the presentation of summary statistics of the selected variables. In addition, the results of the degree of associations among the variables were presented.

As in Table 1, the FQC is observed to have an average value of 3.37 from a range of values between 3.14 and 3.57. The average EQC is found to be 3.07 with minimum and maximum values of 2.93 and 3.21 respectively. For CRED, the lowest and highest values are 3.07 and 3.36 respectively with an average value of 3.22. Generally, the average value of 3.22 which is about 64.0% of the possible aggregate score of 5 indicates that the companies’
financial reports information is relatively credible. Also, the average EMGT and ISM are found to be 0.13 and 0.68 respectively. Explicitly, the average value of 0.13 corresponds to higher accruals quality which in order words represents higher earnings quality and the average value of 0.68 (<1) indicates relatively less earnings smoothness which could be considered as relatively high earnings quality.

Furthermore, the correlation coefficients among the credibility of accounting information indicator and sub-indicators range between 0.077 and 0.672 while the correlation results showed -0.37 and -0.115 correlation coefficients among the credibility of accounting information, and EMGT and ISM. For the association between EMGT and ISM, a correlation coefficient of -0.213 was computed which indicates that the regression models specified in this study are not prone to multicollinearity problems.

### Table 1. Dependent Variables - Summary Statistics.

| Variable | FQC | EQC | CRED | EMGT | ISM |
|----------|-----|-----|------|------|-----|
| Summary Statistics | | | | | |
| Obs | 160 | 160 | 160 | 160 | 160 |
| Mean | 3.37 | 3.07 | 3.22 | 0.13 | 0.68 |
| Std. Dev. | 0.12 | 0.07 | 0.07 | 0.16 | 0.51 |
| Min | 3.14 | 2.93 | 3.07 | 0.01 | 0.04 |
| Max | 3.57 | 3.21 | 3.36 | 1.05 | 3.52 |
| Correlation | | | | | |
| FQC | 1 | | | | |
| EQC | 0.077 | 1 | | | |
| CRED | 0.672 | 0.555 | 1 | | |
| EMGT | -0.274 | -0.307 | -0.379 | 1 | |
| ISM | -0.168 | -0.115 | -0.197 | -0.213 | 1 |

Note: ISM = Income Smoothing, EMGT = Earnings Management, FQC = Fundamental Qualitative Characteristics, EQC = Enhancing Qualitative Characteristics and CRED = Credibility of Accounting Information.

### 4.2. Regression Analysis

The results of the regression models estimated were discussed in this subsection. The appropriate estimation techniques were derived using Breusch and Pagan Lagrangian multiplier and Hausman tests. Specifically, Breusch and Pagan Lagrangian multiplier test for random effects with the null hypothesis that variance across entities is zero tests results showed that the data used in this study are not pooled. Thus, the models could not be estimated using a Pooled regression estimator (OLS). This was evident in the significant (P-value < 0.05) LM test's results in the lower portion of Tables 2 and 3. However, Hausman tests results were used to check whether the Random or Fixed Effect regression estimator is appropriate for this study after LM tests have established that the data were not Pooled. The insignificant (P-value > 0.05) Hausman test result under FQC model in Table 2 showed a preference for Random effect estimator while the significant (P-value < 0.05) Hausman test results under EQC and CRED models in Table 2 showed a preference for Fixed effect estimators.

Base on the results in Table 2, the coefficient of ISM under FQC model is seen to be negative and statistically significant at 5% level \[ \text{Coeff} = -0.036; \text{P-value < 0.05} \] while the coefficient of the variable is negative but statistically insignificant \[ \text{Coeff} = -0.004; \text{P-value > 0.05} \] under EQC model. These typically suggest that that decrease in ISM increases Credibility of accounting information in terms of Fundamental Qualitative Characteristics (FQC). For EMGT reverse is the case, this is because EMGT has negative but insignificant coefficient \[ \text{Coeff} = -0.111; \text{P-value > 0.05} \] indicating that the effect of EMGT on Credibility of accounting information in terms of Fundamental Qualitative Characteristics (FQC) is not statistically significant; though rightly signed. However, this becomes highly significant \[ \text{Coeff} = -0.088; \text{P-value < 0.05} \] with Credibility of
accounting information in terms of Enhancing Qualitative Characteristics (EQC) and simply suggesting that the decrease in EMGT increases the Credibility of accounting information in terms of Enhancing Qualitative Characteristics (EQC). The finding of this study is consistent with the study of Ubesie et al. (2020) who found that income smoothing and earnings management had a statistically insignificant effect on companies' performance. Also consistent with our findings are the studies of Godsell et al. (2017) posited that income smoothing earnings management are no longer attractive an incentive to impress the shareholders.

For the fitness of the models, the results in the lower portion of the Table 2 showed that the preferred regression estimators have significant F-stat/Wald chi² (P-value < 0.05) suggesting that the combined effect of the ISM and EMGT on the sub-indicators of Credibility of accounting information is statistically significant at 5% level. Besides, Adjusted R-square in these models are 0.117 and 0.028. Thus, the models are fit. Then, checking whether the classical assumptions of heteroscedasticity and cross-sectional dependence requirements are met; the significant results (P – values < 0.05) of Pesaran CD Test for cross-sectional dependence and Breusch-Pagan test for heteroscedasticity suggest the rejection of the null hypothesis of no cross-sectional dependence and homoscedasticity in this model. Therefore, the regression models have cross-sectional dependence and heteroskedasticity problem and for this reason Driscoll-Kraay standard errors was used.

In line with hypotheses three, the regression result was presented in Table 2. From the result, ISM has a negative and significant coefficient \( [\text{Coeff} = -0.020; \text{P-value} < 0.05] \) suggesting the rejection of the null hypothesis (H₀) that says income smoothing has no significant effect on the Credibility of accounting information. Based on this, this study concluded that income smoothing has a significant effect on the Credibility of accounting information. For EMGT, the variable has a negative and significant coefficient \( [\text{Coeff} = -0.092; \text{P-value} < 0.10] \).

This simply indicated that the null hypothesis (H₀) that says earnings management has no significant effect on Credibility of accounting information should be rejected. Thus, this study concluded that Earnings management had a significant effect on the Credibility of accounting information. The result of this study is consistent with the study of Adisetiawan and Surono (2016); Ubesie et al. (2020); Essien and Ntiedo (2018), however the findings were inconsistent with the study of Jung et al. (2013); Oraby (2017); Akpanuko and Umoren (2018); Akther and Xu

### Table 2. Regression Results for FQC, EQC, and CRED Models.

| Variable | Coef. | Std. Error | Coef. | Std. Error | Coef. | Std. Error |
|----------|-------|------------|-------|------------|-------|------------|
| ISM      | -0.036** | [0.013]    | -0.004 | [0.003]    | -0.020 | [0.006]    |
| EMGT     | -0.111  | [0.091]    | -0.088 | [0.025]    | -0.092 | [0.046]    |
| Constant | 3.407*** | [0.071]    | 3.089  | [0.008]    | 3.246  | [0.011]    |

Note: ISM = Income Smoothing, EMGT = Earnings Management, FQC = Fundamental Qualitative Characteristics, EQC = Enhancing Qualitative Characteristics and CRED = Credibility of Accounting Information; *** p<0.01, ** p<0.05, * p<0.1.
These studies have evidenced that income smoothing and earnings management exhibited negative effects on the credibility of accounting information, and users of financial statements are weary of manipulated financial statements in making useful investment decisions.

As per the fitness of the models, the results in the lower portion of the Table 2 depicts that the chosen regression estimator for this purpose has significant F-stat (P-value < 0.05) suggesting that the combined effect of the ISM and EMGT on the indicators of Credibility of accounting information is statistically significant at 5% level. Additionally, the Adjusted R-square is 0.042. Thus, the model is fit. Again, checking whether the classical assumptions of heteroscedasticity and cross-sectional dependence requirements are met; the significant results (P-values < 0.05) of Pesaran CD Test for cross sectional dependence and Breusch-Pagan test for heteroscedasticity suggest the rejection of the null hypothesis of no cross-sectional dependence and homoscedasticity in this model. Therefore, the regression models have cross sectional dependence and heteroscedasticity problem and for this reason Driscoll-Kraay standard errors are used.

5. SUMMARY AND CONCLUSION

The study investigated the effect of income smoothing and earnings management on the credibility of accounting information of listed manufacturing companies in Nigeria. Three models were used to test the effect of income smoothing and earning management on the credibility of accounting information, and on fundamental qualitative characteristics (FQC) and enhancing qualitative characteristics (EQC), as well as the main model of the study. The study revealed that the effect of EMGT on Credibility of accounting information in terms of Fundamental Qualitative Characteristics (FQC) was not statistically significant; though rightly signed. However, this becomes highly significant with the credibility of accounting information in terms of enhancing qualitative characteristics (EQC) and this could imply that a decrease in EMGT increases the credibility of accounting information in terms of Enhancing qualitative characteristics (EQC). The findings from hypothesis three reveal that income smoothing and earnings management had a positive effect on the credibility of accounting information. Finally, the study concluded that credibility of accounting information was significantly affected by income smoothing and earnings management, this implies that income smoothing and earning management in the hands of the corporate managers can influence the credibility of accounting information of listed manufacturing companies in Nigeria.

The study opined that managers should embrace ethical values and ensure the credibility of financial statements in meeting the expectations of shareholders, investors, and other stakeholders in making an investment decision. The financial statement users expect reliable and credible accounting information that will add value to the investment decision, hence managers own these stakeholders transparent and honest financial reporting. Apparently, the essence of accounting information is to enable users to make useful decision especially investment or divestment decisions, predictive, or other decision makings. Significantly, managers should ensure that accounting information is credible, possess the following qualities, relevance, and faithful representation, also verifiable, comparable, understandability and timeliness.

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