

Creative Accounting Practices and Financial Reporting Quality in Deposit Money Banks

Hilary Nkad Kubua

Department of Accounting Faculty of Administration and Management Sciences University of Calabar,
Cross River State, Nigeria

DOI: <https://doi.org/10.47772/IJRISS.2026.100700552>

Received: 24 July 2026; Accepted: 29 July 2026; Published: 07 August 2026

ABSTRACT

The reliability of bank financial statements is central to confidence in the financial system because deposit money banks safeguard public deposits, allocate credit and perform systemically important functions. However, management's discretion in applying impairment policies and other accounting estimates may affect reported earnings and can create the appearance of lower-quality financial reporting. This study explored the consequences of creative accounting on the financial reporting quality of selected deposit money banks in Nigeria by examining loan-loss provision intensity and income smoothing. The study adopted a quantitative approach and an ex-post facto research design. Secondary data were collected from the audited annual reports of five selected deposit money banks covering 38 observations of bank-years of 2015-2024. The Financial Reporting Quality Index was used to quantify financial reporting quality, with bank size, leverage and profitability as control variables. Data were analysed using descriptive statistics, correlation analysis and panel regression. Following the Hausman specification test, the random-effects estimator was adopted. The results showed that loan-loss provision intensity had a negative but statistically insignificant effect on financial reporting quality ($\beta = -0.2516$; $p = 0.8240$). Income smoothing also had a negative but insignificant effect ($\beta = -0.0051$; $p = 0.9322$). Although the model was jointly significant, the two provision-based measures did not significantly explain variations in the disclosure-based reporting-quality score. The study finds that it is possible to report several financial disclosures and still employ managerial discretion. Regulators, audit committees and external auditors should thus remain vigilant of the assumptions on which impairment estimates are based.

Keywords: Creative accounting; financial reporting quality; loan-loss provisions; income smoothing; deposit money banks

INTRODUCTION

Background to the Study

According to Olowokure et al. (2016), high-quality financial reporting is fundamental in banking given its importance as the only source of information available to external users not privy to the same information from the bank's internal sources. The banking sector should be subjected to more rigorous reporting checks than regular companies, as banks have highly leveraged balance sheets, and the value of their assets is not directly observed but estimated; and distress can be transmitted between banks through risk interactions, as Bao et al. (2020) show in their systemic-importance model. Financial reporting quality should not only be technically correct but also provide relevant, faithfully represented, comparable, verifiable, understandable and timely information to reduce information asymmetry and support defensible decisions (Olowokure et al., 2016).

However, there is a conflict between the informativeness of bank accounting and the opportunism of bank intervention. Creative accounting refers to the intentional selection of permitted choices, classifications, estimates or timing decisions to achieve a desired accounting report (Tomy, 2019). However, provisions can also reflect strategic incentives rather than simply credit deterioration; Tomy (2019) shows that geographically constrained community banks make provisions when new banks enter the market. This evidence could be used

to argue that compliance does not equate to neutrality, as the same discretion could interpret risk with prudence or report profits in a strategic way (Tomy, 2019).

Loan-loss provisions are consequential since the expected losses are tied to the quality of the loans, economic forecasts, regulatory requirements and management assumptions, and the evidence from across countries indicates that they react to the economic cycle and to earnings management incentives (Araújo et al., 2018). According to Martens et al. (2021), who analysed banks in 22 frontier-market countries from 2001 to 2018, income smoothing is a negative driver of efficiency. The users of financial statements thus need to differentiate between prudent expected loss recognition and discretionary reporting to create stability in Nigeria (Martens et al., 2021).

The Nigerian deposit money banks are well regulated and well audited, but the absence of estimation discretion is not possible in the regulation because the provision models involve management's discretion in determining the level of credit deterioration and provision for adequacy that is based on a forward-looking scenario. In a study conducted by Ajekwe et al. (2017) on the 14 Nigerian banks that introduced IFRS, the researchers discovered that provisioning and capital-management activity rose following the adoption of IFRS, but earnings smoothing fell, suggesting that stricter accounting rules can impact, rather than eliminate, managerial incentives. However, Ogunbade et al. (2021) examined the reporting quality of 11 banks between 2009 and 2018 and found that only audit fees had a significant effect on their measure of reporting quality, suggesting that assurance mechanisms do not have a consistent impact on outcomes. Similarly, Shika and Kantiyok (2023) find that the influence of board independence on board reporting quality increased when the board had a formal audit structure, which suggests that good governance of formal audit structures is necessary.

Another source of empirical problem is the lack of consistency when measuring. Oyewobi and Omorogbe (2024) investigated creative accounting and the relationship between the two and return on equity, thus explaining performance instead of the reporting of information that explains performance. Oboh et al. (2024) modelled creative accounting with working-capital accruals in 14 banks, yet it might not reflect the unique function of deposits, loans, and impairment estimates in banking. In other research, discretionary loan-loss provisions are regarded as a financial reporting quality and therefore have overlap between the quality of the financial reporting and the quality of the report's subject (Shika & Kantiyok, 2023). For this reason, this study examines the relationship between loan-loss provision intensity, income smoothing and a multidimensional disclosure-based Financial Reporting Quality Index for the period 2015–2024.

Objective of the Study

The general objective of the study is to examine the effect of creative accounting practices on the financial reporting quality of selected deposit money banks in Nigeria. Specifically, the study seeks to:

1. Examine the effect of loan-loss provision intensity on the financial reporting quality of selected deposit money banks in Nigeria.
2. Determine the effect of income smoothing on the financial reporting quality of selected deposit money banks in Nigeria.

Research Questions

1. What effect does loan-loss provision intensity have on the financial reporting quality of selected deposit money banks in Nigeria?
2. What effect does income smoothing have on the financial reporting quality of selected deposit money banks in Nigeria?

Research Hypotheses

H01: Loan-loss provision intensity has no significant effect on the financial reporting quality of selected deposit money banks in Nigeria.

H02: Income smoothing has no significant effect on the financial reporting quality of selected deposit money banks in Nigeria.

Contribution of the Study

The study also provides bank-specific evidence by using a structured disclosure index to measure reporting quality, and two provision-based creative accounting measures that do not rely on a traditional manufacturing-company accrual model. It also uses data from audited annual reports, so the evidence does not reflect the quality of the annual report, but rather the accounting decisions being assessed by regulators, external auditors, audit committees, investors and bank boards.

LITERATURE REVIEW

Conceptual Review

Creative accounting refers to the use of accounting flexibility, professional judgement and estimation to create a financial statement that is more favourable for management than it is required to be given the economic substance of the transactions (Abed et al., 2022a). It could include choosing acceptable accounting treatments, changing the recognition of revenue or expenses, categorising transactions strategically, estimating provisions, revaluating assets, or providing more or less detail or prominence in disclosures (Abed et al., 2022b). Though the accounting discretion is not necessarily bad inasmuch as standards are always subject to judgment where transactions are uncertain or cannot be measured mechanically, it becomes bad where it is exercised to reach a predestined outcome (Abed et al., 2022a). As a result, creative accounting is not the same thing as a benign accounting mistake, but it can be related to earnings management and aggressive accounting, as all three can affect reported results without breaking the formal rules (Nguyen et al., 2022). The line between fraudulent financial reporting and creative accounting may become more transparent when it involves material misstatement or non-compliance that was intentional (Nguyen et al., 2022). The classification of a practice, therefore, will depend on managerial intent, materiality, compliance with standards and whether the report adequately represents the transaction, or merely meets the legal form (Abed et al., 2022b).

Loan-loss provision is the expense recognised to account for expected credit losses from loans and other credit exposures, and provision intensity is the recognised charge compared to the bank's asset base (Salami et al., 2022). This scaling is necessary analytically since the same provision would affect the materiality of a bank in a small bank with a significantly larger loan portfolio differently (Salami et al., 2022). However, a high ratio does not automatically indicate manipulation, as provisions can increase as credit risks increase, as portfolios grow or when expected credit losses change, or macroeconomic conditions turn negative (Araújo et al., 2018). However, the quantity recognised could also be affected by regulatory pressure and intentional conservatism and management incentives, indicating that provisioning is made not only for credit risk but also with potentially discretionary judgement (Salami et al., 2022). The evidence from 48 countries also indicates that institutional and financial-system factors have an impact on non-performing loans and provisions, which is contrary to the notion that the movements of provisions are entirely a management activity. (Ozili & Adamu, 2021). However, provision intensity is used as a proxy for the relative financial significance of provisioning decisions, and not as evidence of creative accounting (Araújo et al., 2018).

Income smoothing is a practice by a manager to minimise the volatility of reported profits over the accounting periods, such as reducing provisions when profits are high and increasing provisions when profits are low (Mune, 2019). Lower volatility of earnings may lead to lower risk perception, dividend expectations, compensation protection, market expectations, and regulatory concerns for managers (Martens et al., 2021). Smoothing, however, is not always opportunistic, as information-rich smoothing can convey management's more recent judgment about credit losses, while opportunistic smoothing can mask credit loss volatility or the nonrecognition of economic deterioration (Martens et al., 2021). This is shown in Nigeria, where Ajekwe et al. (2017) discovered that post-IFRS provisions went up and earnings smoothing went down, demonstrating that higher provisioning does not necessarily lead to poorer earnings quality. On the other hand, Ethiopian banks' data indicates that factors other than credit risk, such as pre-provision earnings and need for external funding, played a significant role in smoothing, indicating that incentives to report may play a role in smoothing in addition to the credit risk

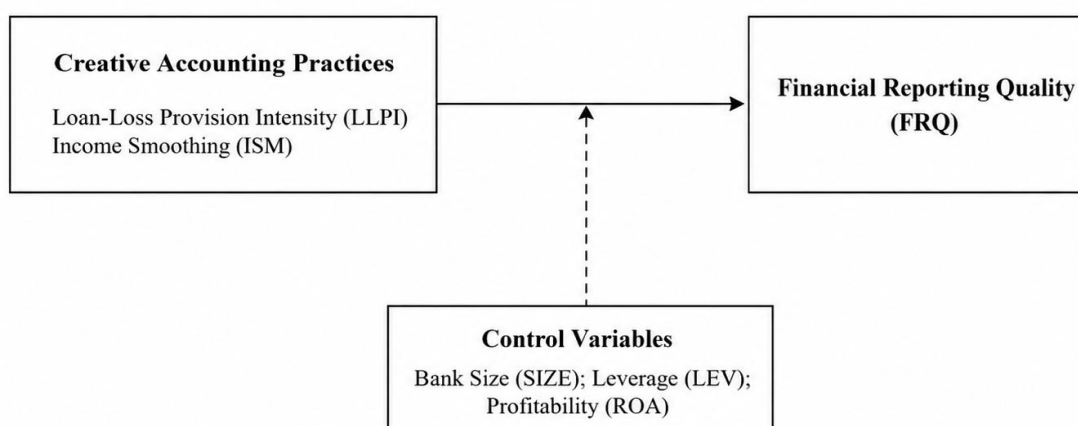
considerations. Opportunistic smoothing is, therefore, an issue when it dampens economically relevant variation, but not enhances the informativeness of earnings (Martens et al., 2021).

Financial reporting quality is the degree to which financial reports can communicate with credibility about the economic position, performance and risk of an entity that are dependent on that information for their decisions (Sahi et al., 2022). Relevance and faithful representation are the basic characteristics of high-quality reporting, which are supported by the other characteristics, namely, comparability, verifiability, timeliness and understandability (Ajibade et al., 2022). However, reporting quality can be broadly assessed only through earnings-based measures: Narrative disclosures, governance information, impairment explanations and regulatory-capital data are ways in which financial institutions communicate risk (Sahi et al., 2022). Based on this, the present study has used a checklist that includes auditor reporting, audit opinion, key audit matters, governance, risk management, going concern, accounting judgements, impairment methodology, credit classifications, write-off, recovery, related parties, segment information, capital adequacy, financial summaries and timeliness (Arisandi et al., 2022). The index then evaluates the extent and quality of formal reporting attributes but cannot identify management's own intention directly, and it also cannot be used to show that each estimate is economically neutral (Arisandi et al., 2022).

CONCEPTUAL FRAMEWORK

The framework considers loan-loss provision intensity and income smoothing as provision-based dimensions of creative accounting, with financial reporting quality as the dependent variable, and controls for bank size, leverage, and profitability to account for differences in organisational scale, financing structure, and performance (Oyewobi & Omorogbe, 2024). The expected relationship is negative for provisioning discretion when economic substance declines, but not when reporting credibility improves, as prudent provision may enhance reporting credibility (Oyewobi & Omorogbe, 2024). Even though the size of the firm is not accounted for, the control for leverage and profitability is warranted as qualitative reporting attributes as well as earnings quality are driven by organisational and financing conditions that could otherwise affect the estimated relationship when size is not taken into account (Tran, 2022).

Conceptual Framework



THEORETICAL REVIEW

Agency theory forms the primary underpinning as ownership and control are separated between managers and shareholders, and the separation of resource control and interests of shareholders, managers, banks and depositors, creditors and regulators by banks is further emphasised (Greenwood et al., 2021). The information that managers have – that is, about borrowers, the quality of the collateral, internal information and assumptions about future risk – is superior, while the external users can observe only the financial results and disclosure

managers choose to make public (Greenwood et al., 2021). This imbalance opens the door for managers to adapt provisions in order to get paid, job security, reputation, to meet earnings targets, regulations, and maintain a stable share price, even if it isn't always in line with users' information needs (Shika & Kantiyok, 2023). Even so, not all estimates are opportunistic; the agency theory suggests that discretion will arise as a problem when controls are weak enough, and the private incentives are strong enough that they allow the disclosure to become something other than honest (Ogbeide et al., 2021). This separation is relevant because the manager is likely to have a better understanding of the possibility of various events of default and the macroeconomic variables and management overlay used, which are not verifiable from elsewhere (Shika & Kantiyok, 2023). The agency costs can thus be lowered through the structure of board independence, audit committee effectiveness, external audit and transparency in impairment reconciliations (Ogbeide et al., 2021). In line with this theory, opportunistic provisioning and income smoothing may have a detrimental effect on financial reporting quality, while favourable monitoring might help to alleviate the adverse effect (Greenwood et al., 2021).

The general perspective of positive accounting theory builds on agency theory by shifting its emphasis from monitoring managers' option selection for reporting neutrality to a focus on incentives under the contracts in place alongside political situations (Ozili, 2024). Under the bonus-plan hypothesis, managers are likely to make decisions regarding increased earnings under profit-based incentive scenarios, but the debt-covenant hypothesis suggests managers will make choices to prevent default under the debt-covenant, and the political-cost hypothesis proposes a reduction in earnings to avoid public or regulatory scrutiny in high profit-earning scenarios (Ozili, 2024). In banking, such incentives can manifest in how the provisions are structured in terms of the timing and size of provisions, since provisions have a direct impact on earnings, retained capital, and perception of risk (Ozili, 2024). These are insignificant effects individually, but the governance variables had a joint effect on earnings management; however, the combination of these did not produce a deterministic effect, as there is evidence of conditional accounting predictions (Suripto & Supriyanto, 2021). Therefore, agency theory is necessary to examine the study, which focuses on information asymmetry and monitoring since positive accounting theory explains the specific accounting theory explains the specific rewarding system through which discretion can be exercised. (Suripto & Supriyanto, 2021).

Empirical Review

An increase in loan-loss provisions is not necessarily proof of manipulation, as the provisioning is also a reflection of actual observable deterioration in credit and managerial judgment. Basu et al. (2020), using United States bank-holding-company data, demonstrate that provisions have a V-shaped relationship with changes in non-performing loans because large charge-offs can reduce reported non-performing loans while increasing provisions. Conventionally, linear residual models have been used to classify credit loss recognition as discretionary earnings management of banks, which was found to be incorrect in the absence of omission of the charge-off and asymmetric response of banks (Basu et al., 2020).

However, when provisions are based on discretion, it becomes critical when their time and purpose change. However, even though the new Basel III requirement for regulatory capital increased the minimum Tier 1 capital ratio from 4% to 6%, the companies reported fewer regulatory-capital provisions after the reform, while the timeliness of its application still remained positive, according to Jutasompakorn et al. (2021). Consequently, stricter regulation could benefit one reporting quality parameter, but not necessarily the others; thus, any change in regulation might not necessarily lead to a uniform improvement in reporting quality (Jutasompakorn et al., 2021).

Yet, besides complicating interpretation further, macroeconomic conditions may also affect it: Danisman et al. (2021) examined data on 6,384 United States banks during 2009-2019 and concluded that policy uncertainty and the use of provisions for smoothing and capital management by banks with GMM and instrumental-variable estimations. Governance can constrain this discretion, although Salem et al. (2021) found that Big Four auditing, co-auditing and audit-committee characteristics restricted provision-based earnings management in Islamic banks but not consistently in conventional MENA banks. However, the intensity of provision may be a proxy for good loss recognition, information uncertainty and managerial intervention, and its impact on reporting quality will depend on model specification, institutional oversight and regulatory context, and not just on its level (Danisman et al., 2021; Salem et al., 2021).

There is abundant evidence that bank earnings are stabilised by provisions, and estimates differ across measurement and in the institutional context. In a regression analysis of the Spanish banks covering the 2005–2020 period, Gómez-Ortega et al. (2023) discovered that, after 2012, the correlation between provisions and earnings decreased as the provisioning rules were tightened, suggesting that regulation can limit smoothing. While identical in some respects, however, Luu and Nguyen (2023) did not consider Vietnamese banks from 2010 to 2019 and detected loopholes in Basel II enabling banks to exercise discretion to switch income to different periods (namely, provisioning for lower periods and smoothing in higher periods) or signal performance.

Measurement choice also shapes the conclusion reached. In their study of 15,931 loan portfolio-quarter observations for a systemic European bank, Aggelopoulos et al. (2023) examined provision reversals directly, with many multi-bank studies probing the issue of provision smoothing indirectly through regression residuals or the provision-to-earnings ratio. Additionally, Skala (2021) studied more than two hundred banks across Central Europe to identify how ownership and governance affect the use of discretionary provisions, which was found to be the case. Similarly, Biswas et al. (2024) identified across 78 banks from the BRICS set of nations between 2014 and 2020 that greater trade openness led to provision-based smoothing, and IFRS 17 adoption to a corresponding decline in the case of high institutional quality. As such, smoothing can mask volatility, reduce comparability, and can include forward-looking estimates of losses, which then allows for more credible inference – based on provision ratios, changes, residual models, or directly observed reversals, respectively (Aggelopoulos et al., 2023; Skala, 2021; Biswas et al., 2024).

Research Gap

Most of the Nigerian studies have not integrated provision intensity and disclosure of provisions with a financial reporting quality index; many simply discuss profitability or use provision intensity as a financial reporting quality variable. Also, non-financial-firm accrual models might ignore charge-offs and credit-risk estimation associated with the banks. This study overcomes these limitations by applying recent audited bank-level reports as well as a multidimensional measure of the reporting quality, which is based on provision measures.

METHODOLOGY

Since the study tested relationships between accounting and disclosure variables that were measured objectively, it was done from a positivist philosophy and quantitative approach. The context of positivism emphasises on the observable evidence, structured measurement, testing and formulating hypotheses over subjective interpretation (Mahardini et al., 2024). Therefore, the solicitation of quality in financial reporting, provisions, earnings, assets and liabilities was expressed numerically and statistically analysed.

The transactions, accounting estimates and disclosures had already been made prior to investigation, which is why an ex-post facto design was used. The researcher did not have the opportunity to manipulate the recognised provisions, and the published financial statements were reviewed to attempt to estimate financial relationships that can be used as a basis for comparisons. The design suited the evaluation of associations among the accounted outcomes, although the coefficients obtained here are those related to observation and not experimentation.

The population included deposit money banks registered in Nigeria under the financial-reporting, external-audit and banking-regulation statutes. This population was suitable, given that banks have features of reports that don't exist in non-financial companies (Sahi et al., 2022) arising from the processes of deposit mobilisation, lending, credit-risk estimation, and capital regulation.

Purposive sampling was used to select Access Bank, Fidelity Bank, Guaranty Trust Bank, Stanbic IBTC Bank and Zenith Bank. The criteria for inclusion were: audited bank-level financial statements, adequate financial data, credit loss disclosures and reporting information, computable variables for use in the study and coverage, 2015–2024. Information on holding companies with insufficient information on the banks was also omitted so as to avoid aggregation of banking and non-banking activities. There were 38 bank-years to look at in the final dataset.

Secondary data were collected from the audited annual reports, the official investor relations websites and published financial disclosures and material regulatory information. There was consistency in data collection from banks and years as a result of a structured extraction template. Items that were extracted: profit before tax, profit after tax, loan-loss provision or credit-loss expense, total assets, prior-year assets, total liabilities, audit information and specified reporting disclosures. To determine the origin and comparability of the reused data, each value was attached to its corresponding report, compared with the corresponding statement or note and standardised to millions of naira for analysis (Hmielowski, 2017).

Table 1: Measurement of variables

Variable	Type	Measurement
Financial reporting quality	Dependent	Checklist points obtained divided by maximum obtainable points
Loan-loss provision intensity	Independent	Loan-loss provision divided by prior-year total assets
Income smoothing	Independent	Loan-loss provision divided by pre-provision earnings
Bank size	Control	Natural logarithm of total assets
Leverage	Control	Total liabilities divided by total assets
Profitability	Control	Profit after tax divided by average total assets

The structured checklist focused on financial reporting quality measured with respect to auditor reporting, audit opinion, key audit matters, governance, risk management, going concern, accounting estimates, impairment reporting, credit classifications, write-offs/recoveries, related-party disclosures, segment reporting, capital adequacy, financial summaries and timeliness. Each item was measured similarly, and the resulting measure was between zero and one, where one is best, and zero is worst, for whether the item is measured, reported or disclosed in good form. Structured indices can be used to turn qualitative information in an annual report into a comparable quantitative score (Hla et al., 2021). Each item received the pre-determined score where required information is present and identifiable, and a zero score when the required information is not present and/or not identifiable. This was done to identify the total proportion from the maximum possible score to eliminate any variation due to report length.

$$FRQ_{it} = \frac{\text{Checklist points obtained}_{it}}{\text{Maximum obtainable points}_{it}}$$

Loan-loss provision intensity measured the credit-loss expense relative to prior-year total assets. Scaling controlled for differences in bank size, although the ratio was interpreted cautiously because provisions may reflect both economic conditions and managerial incentives (Ozili, 2024).

$$LLPI_{it} = \frac{LLP_{it}}{TA_{i,t-1}}$$

Pre-provision earnings were calculated as profit before tax plus loan-loss provision:

$$PPE_{it} = PBT_{it} + LLP_{it}$$

Income smoothing was then measured as:

$$ISM_{it} = \frac{LLP_{it}}{PPE_{it}}$$

The ratio captures the proportion of income before provisioning absorbed by the provision, but it cannot independently distinguish prudent recognition from opportunistic smoothing (Gómez-Ortega et al., 2023).

The control variables were calculated as follows:

$$SIZE_{it} = \ln(TA_{it})$$

$$LEV_{it} = \frac{TL_{it}}{TA_{it}}$$

$$ROA_{it} = \frac{PAT_{it}}{(TA_{it} + TA_{i,t-1})/2}$$

These controls accounted for the possibility that reporting quality varies with organisational scale, financing structure and performance.

The estimated model was:

$$FRQ_{it} = \beta_0 + \beta_1 LLPI_{it} + \beta_2 ISM_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 ROA_{it} + \mu_i + \varepsilon_{it}$$

FRQ denotes financial reporting quality; LLPI, loan-loss provision intensity; ISM, income smoothing; SIZE, bank size; LEV, leverage; and ROA, profitability. The subscripts i and t identify the bank and year, respectively, μ_i captures bank-specific effects, and ε_{it} represents the disturbance term. The coefficients β_1 and β_2 provide the tests of the two hypotheses after controlling for size, leverage and profitability.

The descriptive statistics included central tendency and dispersion, the Pearson correlation included bivariate relationships, and the variance inflation factors included multicollinearity. Repeated observations from the same banks were handled through the use of pooled ordinary least squares and fixed-effect and random-effect regressions. In order to select the preferred specification, the three estimators were compared. Selection of the model was made based on the Hausman test, with a p-value of 0.1607 allowing for the inclusion of a random-effects model. Model adequacy was examined using the Breusch–Pagan heteroskedasticity test, Jarque–Bera residual-normality test, residual-dependence assessment and Wald joint-significance test. All hypotheses were evaluated at the 5% significance level.

Numbers extracted and compared to reports available from audits; standardised and referenced to millions of naira. To ensure consistency, the same disclosure checklist was used in all observations and the same scoring system in each. No participants were involved with the study, and it was conducted using anonymised organisational documents, so no participatory consent or human-subjects ethics approval was needed. No personal or confidential data were collected, and no customers or employees were directly and individually identified.

RESULTS

The analysis covered Access Bank, Fidelity Bank, Guaranty Trust Bank, Stanbic IBTC Bank and Zenith Bank from 2015 to 2024. After applying report-availability and data-completeness criteria, 38 bank-year observations were retained. Data came from audited bank-level annual reports, and all monetary values were standardised to millions of Nigerian naira.

Table 2: Descriptive statistics

Variable	N	Mean	Standard deviation	Minimum	Maximum
FRQ	38	0.9661	0.0375	0.8947	1.0000
LLPI	38	0.0081	0.0138	-0.0188	0.0514
ISM	38	0.1891	0.1254	-0.2112	0.4394
SIZE	38	15.1804	0.7707	13.8602	16.9073
LEV	38	0.8813	0.0298	0.8219	0.9356
ROA	38	0.0265	0.0144	0.0031	0.0603

Source: Authors' computation from audited annual reports, 2015–2024.

The mean FRQ score was 0.9661, indicating that the banks satisfied approximately 96.61% of the reporting-quality checklist. The minimum was relatively high (0.8947), but the standard deviation (0.0375) indicates that there are measurable differences in the quality of the disclosure. On average, LLPI was 0.0081, or about 0.81% of the value of assets in the prior year. The minimum (0.0188) corresponds to an impairment write-back, the maximum (5.14%) to the provisioning level of 5.14% of prior-year assets in only one observation.

The figures for ISM varied considerably from -0.2112 to 0.4394, with an average of 0.1891; thus, the absorption in earnings has changed often. SIZE was also variable and suggested bank scale differences in materiality. Average leverage was found to be 0.8813, which showed that deposit money banks are liability intensive, while ROA ranged from 0.0031 to 0.0603. The range of the reporting rates for FRQ was relatively small, so these results should be understood in conjunction with the overall high reporting rate.

Table 3: Pearson correlation matrix

Variable	FRQ	LLPI	ISM	SIZE	LEV	ROA
FRQ	1.000	0.015	-0.045	0.280	0.140	0.174
LLPI	0.015	1.000	0.643	0.574	0.133	0.222
ISM	-0.045	0.643	1.000	0.304	0.236	-0.299
SIZE	0.280	0.574	0.304	1.000	0.409	0.191
LEV	0.140	0.133	0.236	0.409	1.000	-0.618
ROA	0.174	0.222	-0.299	0.191	-0.618	1.000

Source: Authors' computation from audited annual reports, 2015–2024.

FRQ had a negligible positive correlation with LLPI ($r = 0.015$) and a weak negative correlation with ISM ($r = -0.045$). These results provide no preliminary evidence of a strong bivariate relationship between either creative-accounting measure and reporting quality. FRQ's largest positive association was with SIZE ($r = 0.280$), although this remained modest.

LLPI and ISM were positively correlated at 0.643 because both measures incorporate the reported provision. LEV and ROA recorded the strongest inverse correlation at -0.618. Nevertheless, no coefficient reached the

commonly applied 0.80 threshold. Correlation describes association only and does not determine the hypotheses after the effects of other variables have been controlled.

Table 4: Variance inflation factors

Variable	VIF
LLPI	3.307
ISM	3.053
SIZE	2.550
LEV	3.509
ROA	4.323

Source: Authors' computation.

The VIF values ranged from 2.550 for SIZE to 4.323 for ROA. LLPI, ISM and LEV recorded values of 3.307, 3.053 and 3.509 respectively. Since every value was below 5, serious multicollinearity was not detected. The explanatory variables were therefore retained simultaneously in the regression model.

Table 5: Model-selection and diagnostic results

Test	Statistic	p-value	Decision
Hausman specification test	7.9203	0.1607	Random-effects estimator retained
Joint bank-effect F-test	5.4570	0.0022	Bank-specific effects jointly significant
Random-intercept likelihood-ratio test	6.3854	0.0115	Random intercept improved model fit
Breusch–Pagan heteroskedasticity test	2.7960	0.7314	Heteroskedasticity not detected
Jarque–Bera residual-normality test	2.3498	0.3089	Residual normality not rejected
Within-bank lagged-residual test	−0.0659	0.7217	First-order dependence not detected
Durbin–Watson statistic	1.5056	—	No severe departure from independence

Source: Authors' computation.

The Hausman test produced a statistic of 7.9203 and a p-value of 0.1607. Because the probability exceeded 0.05, the difference between the fixed-effects and random-effects estimates was not considered systematic, and the random-effects estimator was retained. The joint bank-effect F-test was significant ($F = 5.4570$; $p = 0.0022$), indicating that bank-specific effects were collectively relevant. The random-intercept likelihood-ratio test was also significant ($LR = 6.3854$; $p = 0.0115$), confirming that the random intercept improved fit relative to pooled OLS.

The Breusch–Pagan test did not detect heteroskedasticity ($p = 0.7314$), and the Jarque–Bera test did not reject residual normality ($p = 0.3089$). The within-bank lagged-residual test showed no first-order dependence ($p = 0.7217$), while the Durbin–Watson statistic was 1.5056. Overall, the diagnostics did not reveal a serious violation requiring rejection of the selected specification.

Table 6: Random-effects regression estimates

Variable	Coefficient	Standard error	z-statistic	p-value
Constant	0.3898	0.2006	1.9434	0.0520
LLPI	-0.2516	1.1314	-0.2224	0.8240
ISM	-0.0051	0.0601	-0.0851	0.9322
SIZE	0.0079	0.0142	0.5572	0.5774
LEV	0.4813	0.3540	1.3595	0.1740
ROA	1.2812	0.8416	1.5223	0.1279

Model statistic	Value
Observations	38
Marginal R^2	0.2367
Conditional R^2	0.5338
Wald statistic	15.3107
Model p-value	0.0091

Source: Authors' computation.

The model was jointly significant ($Wald = 15.3107$; $p = 0.0091$), indicating that the explanatory variables collectively contributed to explaining FRQ. The marginal R^2 of 0.2367 shows that the observed explanatory variables accounted for approximately 23.67% of FRQ variation. The conditional R^2 0.5338 indicates that the explanatory variables and bank-specific components jointly accounted for approximately 53.38%.

LLPI produced a negative coefficient of -0.2516, but its effect was statistically insignificant ($z = -0.2224$; $p = 0.8240$). H01 was therefore not rejected: loan-loss provision intensity did not significantly explain financial reporting quality. ISM also had a negative and insignificant coefficient ($\beta = -0.0051$; $z = -0.0851$; $p = 0.9322$). Consequently, H02 was not rejected.

The constant was 0.3898 and narrowly missed statistical significance ($p = 0.0520$), although the intercept was not central to either substantive hypothesis. The estimated signs indicate direction rather than proof of causation. SIZE ($\beta = 0.0079$; $p = 0.5774$), LEV ($\beta = 0.4813$; $p = 0.1740$) and ROA ($\beta = 1.2812$; $p = 0.1279$) were positive but individually insignificant.

DISCUSSION OF FINDINGS

A negative coefficient for loan-loss provision intensity indicated that increased provision intensity for loans was linked to decreased financial reporting quality but was not statistically significant. The direction coheres with agency theory, but the insignificance indicates that provision intensity was not consistently a good indicator of differences in the quality of reporting.

One reason is that provisions meet actual deterioration in credit positions, plus discretion. Based on 6,384 U.S. banks between 2009 and 2019, Danisman et al. (2021) conclude that policy uncertainty drove up provisions once

discretionary behaviour is factored out. So, the economic conditions can independently increase the impairment charge, and LLPI will involve the credit risk, macroeconomic conditions and managerial estimation.

Measurement also matters. Since the provisions may be increasing NPLs and the latter may be declining due to charge-offs, Basu et al. (2020) found a non-linear relation between provisions and NPLs. By contrast, Beatty and Liao (2020) suggested that including charge-offs to control for outliers would produce false negatives and suggested an alternative credit-quality measure be used in a linear specification. This conflict agrees with what we already knew – that a straightforward intensity ratio does represent the value of provisions, but not the managerial intent to provide them.

Opportunism may be additionally restricted by regulation and governance. They concluded that Basel III made provisioning timely while aiding in capital management practices by allowing a greater level of discretion in provisioning. (Jutasompakorn, et al., 2021) In the same way, Salem et al. (2021) concluded that audit quality restricted earnings management through provision in certain sectors of banking, but not others. Therefore, the coefficient of the control variable should be considered as inconclusive evidence of effect, rather than as evidence of a lack of effect.

Ownership and the use of incentives and monitoring might also be important. Skala (2021) discovered that foreign-owned Central European banks took advantage of discretionary provisions to smooth earnings (while state-owned banks were more likely not to do so). Di Fabio et al. (2021) demonstrated that prudential supervision may lead to more smoothing, while the process of accounting enforcement and market discipline limited smoothing. So, the ratio may not capture all aspects of smoothing that are driven by governance and regulation.

Last but not least, the FRQ index measures disclosure, not actual provisioning decisions. Aggelopoulos et al. (2023), based on 15,931 firm loan portfolio-quarter observations, found that the provision reversals are to prevent loss. A bank can thus make a wide range of disclosures without timing having an impact on earnings. It does not indicate that there was no smoothing, but rather it means that ISM does not explain FRQ significantly.

The good news was that the size of a bank, as well as profitability and leverage, were positive but non-significant on one bank alone. Higher reporting-quality scores were not automatically achieved, on their own, with higher asset size, leverage and profitability. However, the model turned out to be the joint significant one, meaning that the variables had more informativeness, both together and individually. This can make reporting quality appear to be a reflection of the financial characteristics, governance, audit oversight, and regulation and reporting requirements as well, rather than any individual accounting ratio.

Any measures taken to address misleading statements from the FRC of Nigeria and the Central Bank of Nigeria should be aimed at revisiting the principles, rather than the quantity, underlying expected-credit-loss calculations. Provisions should be considered in conjunction with the changes in classification of loans to charge-off, recoveries, and non-performing exposures. External auditors and audit committees should challenge impairment staging, forward-looking scenarios, and management overlays, and bank boards should incentivise long-term risk recognition. The disclosures should be viewed in conjunction with credit quality, cash flows, provision movements and the capital adequacy of the investor.

CONCLUSION

The study considered the effect of loan-loss provision intensity and income smoothing on financial reporting quality of the selected deposit money banks in Nigeria. A structured index was developed to measure financial reporting quality for the areas of auditor reporting, governance, risk disclosure, accounting judgements, impairment information, credit classifications, related-party reporting, capital adequacy and timeliness. Five banks were analysed, and 38 observations were made over a period of bank years (2015–2024).

The findings showed that the mean financial reporting quality score was 0.9661, indicating generally extensive compliance with the attributes included in the reporting-quality checklist. Loan-loss provision intensity produced a negative coefficient of -0.2516 , but its effect was statistically insignificant. Income smoothing also produced

a negative coefficient of -0.0051 and was statistically insignificant. Therefore, the null hypotheses about the intensity of loan losses and income smoothing could not be rejected.

Still, the model was jointly significant; that is, the explanatory variables accounted for some information about reporting quality, but none individually at the 5% level was important. The findings do not imply that there was no creative accounting in the selected banks. Rather, they indicate that the provision-based measures did not significantly explain differences in the formal disclosure and reporting-quality scores.

The distinction is important because provisions might not just be a manifestation of the credit deterioration but also managerial discretion, while a disclosure index can't be a direct indicator of the manager's intentions. Long-term and steady reporting in the industry is, therefore, a must, both because of elaborate reporting requirements and because of sound assumptions, good governance, auditing and regulatory oversight of the impairment estimates.

RECOMMENDATIONS

First, the CBN could further assess the assumptions, probability weightings and macroeconomic variables employed in the computation of expected credit loss. These reviews should account for loss of creditworthiness of borrowers as a result of the actual deterioration of their credit versus the loss as a result primarily of management overlays and/or reporting goals.

Second, auditors should seek detailed explanations from management on large variability in impairment charge, provision-to-earnings ratio and lender's expected-credit-loss allowances. Explanations should balance provisions with loan growth, classification, non-performing exposures, loans' values, write-offs and recoveries.

Third, external auditors should be more sceptical when considering loan staging, the definition of defaults, forward-looking scenarios and post-modelling adjustments. Expect special focus on provision reversals and write-offs close to reporting dates and/or earnings thresholds.

Fourth, banks should have detailed records that support the expected-credit-loss assumptions and show that each important assumption is connected to "real data" on their portfolios and macroeconomic indicators. The FRC should spur more similar comments on estimation uncertainty and management overlays.

Fifth, any changes in provisions should not be isolated and therefore interpreted by third parties such as investors and financial analysts. They should be subject to provisioning trends analysis together with non-performing loans, Stage 3 exposures, loan growth, write-off/recoveries and capital adequacy ratios.

Last but not least, bank boards should make sure executive compensation and performance measure programs do not encourage excessive incentives for target-driven earnings. The recommendations assume no manipulation in levels of account balances in the selected bank, but it highlights the estimation risk of provision-based reporting.

Limitations and Suggestions for Further Studies

Measuring formal disclosure and reporting attributes, the Financial Reporting Quality Index was a measure that could not directly observe a manager's intent. The LLP was not a calculation of residual from a discretionary loan-loss provision model. This study was also restricted to a sample of selected banks for which appropriate audited bank-level reports were available, and governance and macroeconomic variables were not included in the study. Other research studies may explore audit-committee and board characteristics; estimate discretionary provision models; investigate regulatory-capital management; do cross-country comparisons; and extend the reporting period and/or interview auditors and/or regulators to build up on findings from annual reports.

Declarations

Ethical approval: The study relied entirely on publicly available secondary data and did not involve human participants; therefore, participant consent and human-subject ethical approval were not required.

Data availability: Data were extracted from the audited annual reports of the selected deposit money banks. The constructed dataset may be made available by the authors upon reasonable request.

Conflict of interest: The authors declare no conflict of interest.

Funding: The study received no external funding.

REFERENCES

1. Abed, I. A., Hussin, N., Ali, M. A., Haddad, H., & Shehadeh, M. (2022). Creative accounting determinants and financial reporting quality: Systematic literature review. *Risks*, 10(4), Article 76. <https://doi.org/10.3390/risks10040076>
2. Abed, I. A., Hussin, N., Haddad, H., & Almubaydeen, T. H. (2022). Creative accounting determination and financial reporting quality: The integration of transparency and disclosure. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), Article 38. <https://doi.org/10.3390/joitmc8010038>
3. Aggelopoulos, E. S., Georgopoulos, A., & Kotsiantis, S. B. (2023). Bank provision reversals and income smoothing: A case study. *Journal of Accounting and Public Policy*, 42(3), Article 107051. <https://doi.org/10.1016/j.jaccpubpol.2022.107051>
4. Ajekwe, C. C., Ibiameke, A., & Silas, M. F. (2017). Loan loss provisions, earnings smoothing and capital management under IFRS: The case of deposit money banks in Nigeria. *American Journal of Management Science and Engineering*, 2(4), 58–64. <https://doi.org/10.11648/j.ajmse.20170204.12>
5. Ajibade, A. T., Okutu, N., Akande, F., Kwarbai, J. D., Olayinka, I. M., & Olotu, A. (2022). IFRS adoption, corporate governance and faithful representation of financial reporting quality in Nigeria's development banks. *Cogent Business & Management*, 9(1), Article 2139213. <https://doi.org/10.1080/23311975.2022.2139213>
6. Araújo, A. M. H. B., Lustosa, P. R. B., & Paulo, E. (2018). The cyclicity of loan loss provisions under three different accounting models: The United Kingdom, Spain, and Brazil. *Revista Contabilidade & Finanças*, 29(76), 97–113. <https://doi.org/10.1590/1808-057x201804490>
7. Arisandi, A., Islami, H. A., & Soeprajitno, R. R. W. N. (2022). Internal control disclosure and financial reporting quality: Evidence from the banking sector in Indonesia. *E-Jurnal Akuntansi*, 32(2). <https://doi.org/10.24843/EJA.2022.v32.i02.p15>
8. Bao, C., Wu, D., & Li, J. (2020). Measuring systemic importance of banks considering risk interactions: An ANOVA-like decomposition method. *Journal of Management Science and Engineering*, 5(1), 23–42. <https://doi.org/10.1016/j.jmse.2019.12.001>
9. Basu, S., Vitanza, J., & Wang, W. (2020). Asymmetric loan loss provision models. *Journal of Accounting and Economics*, 70(2–3), Article 101359. <https://doi.org/10.1016/j.jacceco.2020.101359>
10. Beatty, A., & Liao, S. (2020). Alternative evidence and views on asymmetric loan loss provisioning. *Journal of Accounting and Economics*, 70(2–3), Article 101362. <https://doi.org/10.1016/j.jacceco.2020.101362>
11. Biswas, S., Bhattacharya, S. N., Jin, J. Y., Bhattacharya, M., & Sadarangani, P. H. (2024). Loan loss provisions and income smoothing in banks: The role of trade openness and IFRS in BRICS. *China Accounting and Finance Review*, 26(1), 76–101. <https://doi.org/10.1108/CAFR-03-2023-0037>
12. Coates, A. (2021). How often are basic details of the research process mentioned in social science research papers? *Learned Publishing*, 34(2), 128–136. <https://doi.org/10.1002/leap.1330>
13. Danisman, G. O., Demir, E., & Ozili, P. K. (2021). Loan loss provisioning of U.S. banks: Economic policy uncertainty and discretionary behaviour. *International Review of Economics & Finance*, 71, 923–935. <https://doi.org/10.1016/j.iref.2020.10.016>
14. Di Fabio, C., Ramassa, P., & Quagli, A. (2021). Income smoothing in European banks: The contrasting effects of monitoring mechanisms. *Journal of International Accounting, Auditing and Taxation*, 43, Article 100385. <https://doi.org/10.1016/j.intaccaudtax.2021.100385>
15. Gómez-Ortega, A., Licerán-Gutiérrez, A., & Horno-Bueno, M. P. (2023). Income smoothing management and loan loss provisions in the banking system. *Journal of Risk Finance*, 24(5), 537–553. <https://doi.org/10.1108/JRF-07-2023-0173>

16. Greenwood, M., Tao, L., & Bernardi, R. (2021). Regulatory monitoring and university financial reporting quality: Agency and resource-dependency perspectives. *Financial Accountability & Management*, 37(2), 163–183. <https://doi.org/10.1111/faam.12244>
17. Hla, D. T., Cheuk, S., Isa, A. H. M., & Jakpar, S. (2021). Constructing a financial reporting disclosure quality model of listed firms in Malaysia. *International Journal of Business and Society*, 22(2), 1034–1046. <https://doi.org/10.33736/ijbs.3780.2021>
18. Hmielowski, J. D. (2017). Secondary research/analysis. In *The international encyclopedia of communication research methods*. <https://doi.org/10.1002/9781118901731.iecrm0232>
19. Jutasompakorn, P., Lim, C. Y., Ranasinghe, T., & Ow Yong, K. (2021). Impact of Basel III on the discretion and timeliness of banks' loan loss provisions. *Journal of Contemporary Accounting & Economics*, 17(2), Article 100255. <https://doi.org/10.1016/j.jcae.2021.100255>
20. Li, Y., & Andersson, F. N. G. (2021). A simple wavelet-based test for serial correlation in panel data models. *Empirical Economics*, 60, 2351–2363. <https://doi.org/10.1007/s00181-020-01830-6>
21. Luu, H. N., & Nguyen, D. T. T. (2023). The impact of tighter banking regulation on bank loan loss provisioning: Empirical evidence from a quasi-natural experiment. *Journal of Financial Regulation and Compliance*, 31(5), 696–713. <https://doi.org/10.1108/JFRC-01-2023-0007>
22. Mahardini, D. F., Kasenda, I., Afgani, M. W., & Isnaini, M. (2024). Quantitative research philosophy in research methodology. *JUPE: Jurnal Pendidikan Mandala*, 9(4), 1135–1143. <https://doi.org/10.58258/jupe.v9i4.7830>
23. Martens, W., Yapa, P., Safari, M., & Watts, S. (2021). The influence of earnings management on bank efficiency: The case of frontier markets. *Heliyon*, 7(10), Article e08232. <https://doi.org/10.1016/j.heliyon.2021.e08232>
24. Mune, T. M. (2019). Income smoothing via loan loss provisions and IFRS implications: Evidence from Ethiopian banks. *European Journal of Business and Management*, 11(16). <https://doi.org/10.7176/EJBM/11-16-06>
25. Nguyen, N. T. M., Iqbal, A., & Shiwakoti, R. K. (2022). The context of earnings management and its ability to predict future stock returns. *Review of Quantitative Finance and Accounting*, 59, 123–169. <https://doi.org/10.1007/s11156-022-01041-3>
26. Obboh, J. O., Canice, A., & Ojeka, O. P. (2024). Stock price and firms' attributes of listed deposit money banks in Nigeria: The intervening role of creative accounting. *International Journal of Research and Innovation in Social Science*, 8(7), 3336–3350. <https://doi.org/10.47772/IJRISS.2024.807254>
27. Ogbeide, S. O., Ogiugo, H. U., & Adesuyi, I. O. (2021). Corporate governance mechanisms and financial reporting quality of commercial banks in Nigeria. *Insights into Regional Development*, 3(1), 136–146. [https://doi.org/10.9770/IRD.2021.3.1\(8\)](https://doi.org/10.9770/IRD.2021.3.1(8))
28. Ogungbade, O. I., Adekoya, A. C., & Olugbodi, D. I. (2021). Audit quality and financial reporting quality of deposit money banks listed on the Nigerian Stock Exchange. *Journal of Accounting, Finance and Auditing Studies*, 7(1), 77–98. <https://doi.org/10.32602/jafas.2021.004>
29. Olowokure, O. A., Tanko, M., & Nyor, T. (2016). Firm structural characteristics and financial reporting quality of listed deposit money banks in Nigeria. *International Business Research*, 9(1), 106–122. <https://doi.org/10.5539/ibr.v9n1p106>
30. Oyewobi, I. A., & Omorogbe, O. D. (2024). Effect of creative accounting on the financial performance of listed deposit money banks in Nigeria. *International Journal of Research and Innovation in Social Science*, 8(3), 464–476. <https://doi.org/10.47772/IJRISS.2024.803034>
31. Ozili, P. K. (2024). Bank loan loss provision determinants in non-crisis years: Evidence from African, European, and Asian countries. *Journal of Risk and Financial Management*, 17(3), Article 115. <https://doi.org/10.3390/jrfm17030115>
32. Ozili, P. K., & Adamu, A. (2021). Does financial inclusion reduce non-performing loans and loan loss provisions? *Journal of Corporate Governance, Insurance, and Risk Management*, 8(2), 10–24. <https://doi.org/10.51410/jcgirm.8.2.2>
33. Sahi, A. M., Sahi, A. M., Abbas, A. F., & Khatib, S. F. A. (2022). Financial reporting quality of financial institutions: Literature review. *Cogent Business & Management*, 9(1), Article 2135210. <https://doi.org/10.1080/23311975.2022.2135210>

34. Salami, A. A., Uthman, A. B., & Owoade, R. O. (2022). Managerial discretion and loan loss provisions in Nigerian banks: Empirical IFRS and risk evidence. *Central European Review of Economics and Management*, 6(2), 71–115. <https://doi.org/10.29015/cerem.943>
35. Salem, R., Usman, M., & Ezeani, E. (2021). Loan loss provisions and audit quality: Evidence from MENA Islamic and conventional banks. *Quarterly Review of Economics and Finance*, 79, 345–359. <https://doi.org/10.1016/j.qref.2020.07.002>
36. Shika, K. Y., & Kantiyok, M. D. (2023). Audit committee and financial reporting quality: The moderating effect of board independence of listed deposit money banks in Nigeria. *Gusau Journal of Accounting and Finance*, 3(3), Article 35. <https://doi.org/10.57233/gujaf.v3i3.184>
37. Skala, D. (2021). Loan loss provisions and income smoothing—Do shareholders matter? *International Review of Financial Analysis*, 78, Article 101909. <https://doi.org/10.1016/j.irfa.2021.101909>
38. Suripto, S., & Supriyanto, S. (2021). Implications of positive accounting theory and agency theory in earnings-management practices. *Paradigma: Jurnal Masalah Sosial, Politik, dan Kebijakan*, 25(2), 548–564. <https://doi.org/10.31315/paradigma.v25i2.5325>
39. Tomy, R. E. (2019). Threat of entry and the use of discretion in banks' financial reporting. *Journal of Accounting and Economics*, 67(1), 1–35. <https://doi.org/10.1016/j.jacceco.2018.06.003>
40. Tran, L. T. H. (2022). Reporting quality and financial leverage: Are qualitative characteristics or earnings quality more important? Evidence from an emerging bank-based economy. *Research in International Business and Finance*, 60, Article 101578. <https://doi.org/10.1016/j.ribaf.2021.101578>
41. Wu, M., Imran, M., Zhang, L., He, Q., & Yar, A. (2020). An empirical analysis of firm-specific factors and equity premium: Evidence from the manufacturing sector of Pakistan. *Mathematical Problems in Engineering*, 2020, Article 1346053. <https://doi.org/10.1155/2020/1346053>