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ACCOUNTING CONTROLS AND QUALITY OF FINANCIAL REPORTING

Keywords: accounting controls, detective controls, preventive controls, corrective controls, financial reporting quality.

J E L Classification: M41, M40.

Abstract: The research objective of the study is to examine the impact of accounting controls on the quality of financial reporting within microfinance banks (MFBs) located in Kwara State, Nigeria. A cross-sectional survey methodology was utilized in this research, involving a total of 216 stakeholders from all 27 licensed MFBs. The study drew upon primary data obtained from a selected group of 140 stakeholders within the MFB industry in Kwara State, Nigeria, utilizing random and stratified sampling methods. The data analysis was conducted using descriptive and inferential statistics employing the Partial Least Square Structural Equation Modelling technique. The results of the study reveal that both detective and corrective controls have a significant positive effect on the financial reporting quality of MFBs in the area, while preventive controls do not exhibit a significant impact on financial reporting quality at a 5% level of significance. This study concludes that accounting controls, particularly corrective and detective controls, play a crucial role in enhancing the quality and reliability of financial reporting in microfinance banks, while the impact of preventive controls remains less significant, with insights into the implications of these findings and offers recommendations for improving financial reporting practices in MFBs. Microfinance institutions should continue to invest in robust corrective and detective controls to enhance

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their ability to detect and rectify errors and fraudulent activities in financial reporting processes. This investment should include regular reconciliation procedures, comprehensive audits, and the use of advanced fraud detection techniques.

Introduction

Globally, microfinance banks play a vital role in serving underserved populations, relying on robust accounting controls for sustainable operations (Musa, Ajibade, Shogo & Eo, 2023). These controls ensure financial reporting accuracy and integrity, crucial for asset protection, regulatory compliance, and reliable monetary disclosures in microfinance institutions (Oppong, Atchulo, Fofack & Afonope, 2024). In advanced economies, financial institutions employ advanced technologies and stringent regulations to maintain high reporting standards, mitigate risks, prevent fraud, and ensure transparency, bolstering stakeholder trust (Manginte, 2024). Conversely, in Africa, varying levels of progress in accounting controls reflect challenges such as limited resources, regulatory gaps, and technological limitations, despite the sector's role in economic empowerment and poverty alleviation (Oshora, Fekete-Farkas & Zeman, 2020; Sun, Hao, Cui, Shan, Zhao, Wang, Zhang & Guan, 2022).

Nigeria's growing microfinance sector highlights both opportunities and challenges in implementing effective accounting controls. Despite serving millions of low-income clients, issues like weak internal controls and occasional financial misreporting persist, necessitating stringent measures to enhance credibility (Abitoye, Abdul, Babalola, Daraojimba & Oriji, 2023). In Kwara State, microfinance banks drive financial inclusion but face similar challenges in maintaining robust accounting systems (Ajibola, Saheed & Adedoyin, 2020). Improving these controls is crucial for enhancing financial reporting quality and transparency nationwide. Challenges identified include regulatory gaps, staff training deficiencies, and limited use of advanced accounting technologies, impacting decision-making and investor confidence (Umar, Adam, Alhassan, Abdallah & Nterful, 2024; Sakinah, Desrinofifty, Ponirah, Murthado & Nurhasanah, 2024).

Effective accounting controls are critical for ensuring the accuracy and reliability of financial reporting in Nigerian microfinance banks, yet many struggle with weak internal systems. According to Abdullah (2024), these deficiencies stem from resource constraints, inadequate training, and insufficient integration of controls into daily operations, increasing the risk of errors and financial irregularities. Detective controls, aimed at identifying and correcting past errors, face limitations due to underdeveloped internal audits and manual monitoring processes (Lartey, Akolgo, Jaladi, Ayeduvor & Afriyie, 2023). This hinders timely error detection and resolution, perpetuating challenges in maintaining reporting integrity (Alonge, Dudu & Alao, 2024). Preventive controls, designed to preempt errors, suffer from issues like inadequate segregation of duties and training gaps (Idowu, Adedipe & Aderoju, 2019), heightening vulnerability to fraud and misstatements (Gotelaere & Paoli, 2022). Corrective controls, crucial for addressing identified issues, often lack systematic implementation and follow-through in Nigerian microfinance banks (Idowu, Alonge & Adebayo, 2024). This failure to learn from past errors undermines financial reporting practices, impacting credibility and overall financial health (Yang, 2024).

However, there are scant prior studies (Krishnan, Krishnan & Liang, 2020; Ajao & Oluwadamilola, 2020; Setyawan & Gamayuni, 2020; Zakariyau & Mustapha, 2021; Arisandi, Islami & Soeprajitno, 2022; Kwanbo, Tanko, Baba & Akanet, 2023; Pangaribuan, Sunarsi, Santoso, Wahyuni & Yoewono, 2023; Haerunnisa, Razak & Muchran, 2024; Dominic, 2024) that have been undertaken regarding the impact of accounting controls on the quality of financial reporting across various sectors. A study examining the efficacy of accounting controls in improving the quality of financial reporting in microfinance banks in Nigeria is notably scarce in the existing literature. Previous relevant research has not explored detective control, preventive control, and corrective control as accounting controls frequently influence financial reporting quality. This highlights the insufficient application of accounting controls, underscoring the necessity to assess the effectiveness of such controls in enhancing the financial reporting quality of microfinance banks. The results of this research will aid in shaping policies and establishing regulatory frameworks to fortify the microfinance industry, especially in areas where accounting practices exhibit significant deficiencies. Through addressing these objectives and rationales, the study endeavors to enrich the understanding of accounting controls and financial reporting quality within the microfinance sector, thereby promoting more resilient and transparent financial systems.

Literature review and hypotheses development

Accounting is a core function in every business. According to Hamed (2023) and Dominic (2024), accounting controls encompass the methodologies and protocols established by an organization to validate, ensure accuracy, and guarantee the trustworthiness of its financial reports. Accounting controls prevent, detect, and correct errors in financial reporting until the finalization of statements. They ensure operational efficiency, integrity, and accurate financial reporting, prioritizing performance enhancement over mere legal compliance (Vale, Amaral, Abrantes, Leal & Silva, 2022; Yusuf, Dasawaty, Esra, Apriwenni, Meiden & Fahlevi, 2024). In microfinance institutions, these controls are crucial for maintaining precise, reliable, effective, and transparent financial data. Muriithi and Oluoch (2024) delineated the three key categories of accounting controls as detective controls, preventive controls, and corrective controls within any given organization.

Detective controls are designed to identify deviations from established policies and procedures that have already occurred, such as errors, fraud, or noncompliance (Lartey, Kong, Bah, Santosh & Gumah, 2020). Common examples include internal audits, reconciliations, and variance analysis (Lartey et al., 2020). For microfinance institutions, detective controls are crucial for uncovering inaccuracies or fraudulent activities in financial reporting, and ensuring integrity in financial statements (Muriithi & Oluoch, 2024). Preventive controls aim to prevent issues from arising in the first place by implementing policies and procedures to mitigate risk before problems occur (Xu, Liu & Pei, 2023). For instance, separating duties in financial reporting helps reduce the risk of misstatements (Lartey et al., 2020). In microfinance institutions, preventive controls are essential for maintaining robust and effective financial reporting processes (Ryanto & Tundjungsari, 2024). Corrective controls address issues identified by detective controls, implementing actions to rectify discrepancies and restore proper financial practices (Naboth-Odums, Abanyam, Edeh & Abdulkadir, 2022). These controls are critical for resolving problems and improving financial reporting quality (Alastal, Ali & Allaymoun, 2024). By integrating detective, preventive, and corrective controls, microfinance institutions enhance financial reporting quality and ensure stakeholder trust and transparency (Abdullahi & Othman, 2021).

Financial reporting quality refers to how well financial statements represent an organization's financial status, performance, and cash flows in accordance with accounting standards and regulatory requirements (Mahdi, Mahdi, Abbas & Khatib, 2022; Harjanto, 2023). High-quality financial reporting provides stakeholders such as regulators, investors, donors, and clients, with accurate, timely, and transparent information, enabling them to make informed decisions (Abed, Hussin, Ali, Haddad, Shehadeh & Hasan, 2022).

Empirical Review

Recent empirical studies have consistently shown a positive relationship between strong accounting controls and improved financial reporting quality. These studies span across developed, developing, African countries, and Nigeria, providing a comprehensive global perspective on accounting controls and financial reporting quality.

Detective Controls and Quality of Financial Reporting

Detective controls, designed to identify errors after they occur, have been linked to improved financial reporting quality. For instance, Shareef, Younis and Alsadia (2023), Maarouf, Khoshro and Amini (2024) identified a positive link between strong internal controls and improved financial reporting quality, with fewer errors and restatements in firms with robust mechanisms. The internal control effectiveness has also enhanced financial reporting data quality and reduced fraud, as shown by Krishnan et al. (2020) and Zakirova, Klychova, Dyatlova, Khoruzhy and Mavlieva (2023). In Portugal, Monteiro, Cepêda, Da Silva and Vale (2023) found that internal controls and accounting information systems positively affect reporting quality. Similarly, in Indonesia, Pangaribuan et al. (2023) and Arisandi, Islami and Soeprajitno (2022) demonstrated that detective controls enhanced reporting quality, with similar findings in Kenya by Muriithi and Oluoch (2024), and Dominic (2024) in Nigeria. Drawing from the preceding literature review, the following hypothesis has been formulated:

H1: Detective controls do not exert a significant impact on the financial reporting quality of microfinance banks in Kwara State.

Preventive Controls and Quality of Financial Reporting

Preventive controls are critical in deterring errors or fraud before they occur. Hu, Weng and Wang (2021) found that internal controls improved reporting quality in China. In developing economies, Kwanbo et al. (2023) confirmed the value of preventive controls across various sectors in developing nations. In Africa, Rashid and Sabir-Jaf (2023) linked strong corporate governance, including preventive controls, to better financial reporting. Similarly, Umar et al. (2024) found that internal preventive control systems have a positive influence on financial management in local government authorities in Ghana, and thereby enhancing their financial reporting quality. A study by Muriithi and Oluoch (2024) revealed that preventive controls had a significant and negative effect on the financial reporting lag. In Nigeria, Alabi and Abdulrasaq (2021) found that the internal control system has a positive and significant effect on the quality of financial reports of microfinance banks, and Zakariyau and Mustapha (2021) emphasized that adopting IFRS improved preventive mechanisms, particularly in microfinance institutions. Based on the above the study hypothesized that:

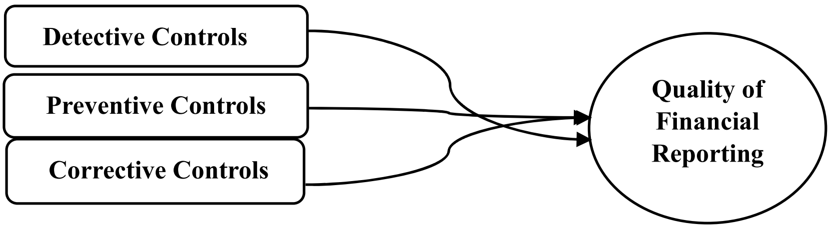
H2: Preventive controls do not exert a significant impact on the financial reporting quality of microfinance banks in Kwara State.

Corrective Controls and Quality of Financial Reporting

Corrective controls help address and rectify identified errors in financial reporting, ensuring compliance with standards. Different researchers have examined the impacts of corrective controls on financial reporting quality, and reported their findings; for instance, Nguyen, Vu and Bui (2023) found that firms with strong corrective controls had fewer financial misstatements over time. Antwi, Adelakun and Eziefule (2024) in the U.S. noted that real-time data correction tools improved financial reporting accuracy and timeliness. In developing countries, Martinez and de-Jesus-Moraes (2024) observed that corrective controls reduced audit adjustments in Brazilian firms, as Jannah, Hazmi, Fitri and Ashar (2024) revealed that internal controls have no significant relationship with financial reporting quality, while Setyawan and Gamayuni (2020) found that combining corrective and preventive controls improved reporting accuracy in Indonesia. In Africa, Ajao and Oluwadamilola (2020) emphasized the significance of corrective controls, alongside preventive and detective measures, in enhancing financial reporting quality in Nigeria. Contrarily, Muriithi and Oluoch (2024) established that corrective controls had a significant and negative effect on the financial reporting lag among listed companies in the Nairobi Securities Exchange. Drawing from the literature review, the following hypothesis was formulated:

H3: Corrective controls do not exert a significant impact on the financial reporting quality of microfinance banks in Kwara State.

Figure 1. Research model



Source: researcher's conceptualization.

Theoretical Framework

Agency theory, developed by Jensen and Meckling (1976), addresses the conflicts between principals (shareholders) and agents (managers) within organizations, stemming from information asymmetries and differing incentives (Koolma, 2024). To mitigate these conflicts, effective monitoring and control mechanisms, such as preventive, detective, and corrective controls, are essential. Preventive controls aim to stop issues before they arise (Lartey et al., 2020), detective controls identify discrepancies (Muriithi & Oluoch, 2024), and corrective controls fix problems (Lartey, Akolgo, Jaladi, Ayeduvor & Afriyie, 2023). In microfinance banks, these controls help align managerial actions with stakeholder interests, improving transparency in financial reporting (Pignatel & Tchuigoua, 2020). However, agency theory assumes managers act primarily out of self-interest, oversimplifying their motivations, as some may prioritize organizational success (Rafiq & Abdullah, 2023). Additionally, implementing stringent controls may not be cost-effective for smaller organizations (Madhavan, Venugopalan, Gupta & Sisodia, 2023), highlighting the theory's limitations in fully addressing managerial behavior and practical constraints (Adib, Zhang, Zaid & Sahyouni, 2021).

Research methodology and the course of the research process

The current investigation utilized a cross-sectional survey research design employing a quantitative approach, using primary data collected from 216 stakeholders across 27 licensed Microfinance Banks situated in Kwara State, Nigeria, as of December 2023. The cohort consisted of 54 internal stakeholders, particularly managerial personnel well-versed in areas such as accounting, control, and finance, with the inclusion of two senior managerial individuals, along with 162 external stakeholders, comprising delegates from the Central Bank of Nigeria, the Nigeria Deposit Insurance Corporation, financial advisors, and external auditors allocated to each microfinance institution. A sample size of 140 was ascertained utilizing Taro Yamane's formula, integrating probability and stratified sampling methodologies. The computation of the sample size is delineated as follows:

The calculation of the sample is shown below n = N/(1 + Ne^2). Where: n = Sample size, N = Total population (216), and e = Margin of error (0.05 or 5%), or 0.10 (10%) (expressed as a decimal), depending on the desired level of confidence. n = 216/ (1 + 216 (0.05) ^2) = 140.

The data analysis for this study was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique through SmartPLS 4 software. This method allowed for the evaluation of both descriptive and inferential statistics. Descriptive statistics were employed to summarize the characteristics of the data, providing insights into variables such as means, standard deviations, and frequency distributions. Inferential statistics, on the other hand, were used to assess the relationships between latent variables, test hypotheses, and determine the significance of the proposed model paths. The PLS-SEM approach was particularly advantageous in handling complex models with multiple indicators, addressing issues related to multicollinearity, and providing robust estimates, even with smaller sample sizes.

Results and discussion

Descriptive Statistics

The provided table 1 displays descriptive statistics for several variables related to detective, preventive, and corrective controls, as well as financial reporting quality.

Table 1. Descriptive statistics for detective controls

Name	Items	Mean	Std. Dev.	Excess kurtosis	Skewness
DECO1	The frequency of internal and external audits.	4.217	1.061	1.316	-1.418
DECO2	Monitoring user activities.	4.275	0.832	2.463	-1.335
DECO3	The use of forensic accounting techniques to hinder financial misreporting.	4.464	0.672	1.419	-1.183
DECO4	Effectiveness in automation and monitoring compliance with policies.	4.522	0.605	2.693	-1.292
DECO5	Frequency and effectiveness of data integrity checks.	4.290	0.800	3.300	-1.448

Source: author's computation using SmartPLS4.

Table 2. Descriptive statistics for preventive controls

Name	Items	Mean	Standard deviation	Excess kurtosis	Skewness
PREVCO1	Strength and effectiveness of access control mechanisms.	4.551	0.578	-0.163	-0.892
PREVCO2	Frequency and quality of security training programs.	4.420	0.769	5.264	-1.876
PREVCO3	Adherence to secure system configuration standards.	4.449	0.753	1.720	-1.179
PREVCO4	Regularity of software updates and patches.	4.304	0.890	2.509	-1.532
PREVCO5	The success rate of backup and recovery tests.	4.348	0.813	1.062	-1.226
PREVCO6	Segregation of duties.	4.101	1.024	2.776	-1.618

Table 2. Descriptive...

Name	Items	Mean	Standard deviation	Excess kurtosis	Skewness
PREVCO7	Effectiveness of network security monitoring systems.	4.203	0.972	0.627	-1.102
PREVCO8	Effectiveness of antivirus and anti-malware solutions.	3.913	1.100	0.596	-0.960
PREVCO9	The extent and effectiveness of encryption technologies and authorized procedures.	4.406	0.621	1.701	-0.929

Source: author's computation using SmartPLS4.

Table 3. Descriptive statistics for corrective controls

Name	Items	Mean	Standard deviation	Excess kurtosis	Skewness
CORECO1	Error Resolution Time.	4.217	0.849	2.322	-1.311
CORECO2	Frequency of System Updates to address vulnerabilities.	4.449	0.578	-0.672	-0.487
CORECO3	User Feedback.	4.246	0.824	3.084	-1.449
CORECO4	Improvement in audit results post-correction.	4.464	0.650	1.665	-1.157
CORECO5	Training and awareness on internal control reviews on reducing errors.	4.406	0.748	4.788	-1.685
CORECO6	Quality and completeness of documentation post-correction.	4.420	0.710	2.120	-1.324
CORECO7	Corrective Action Implementation Time.	4.203	0.926	0.045	-0.981

Source: author's computation using SmartPLS4.

Table 4. Descriptive statistics for preventive controls

Name	Items	Mean	Standard deviation	Excess kurtosis	Skewness
FRQ-1	The precision and correctness of the financial information presented.	4.420	0.730	1.790	-1.313
FRQ-2	The promptness with which financial reports are prepared and released.	4.333	0.811	2.613	-1.360
FRQ-3	Compliance with relevant accounting standards and regulatory requirements (e.g., IFRS, GAAP).	4.536	0.627	2.550	-1.400
FRQ-4	Uniformity in the application of accounting policies and procedures over time.	4.087	0.959	0.577	-0.984
FRQ-5	The extent to which all necessary financial information is included in reports.	4.377	0.744	0.251	-0.967
FRQ-6	The clarity and openness with which financial information is presented.	4.551	0.626	2.722	-1.462
FRQ-7	The ability to compare financial information across periods and with other entities.	4.507	0.580	-0.446	-0.711
FRQ-8	The thoroughness and detail of disclosures provided in financial statements.	4.406	0.709	0.709	-1.032
FRQ-9	The usefulness of controls in decision-making processes.	4.174	0.962	1.645	-1.258

Source: author's computation using SmartPLS4.

DECO stands for Detective Controls, PREVCO for Preventive Controls, CORECO for Corrective Controls, and FRQ for Financial Reporting Quality.

Tables 1–4 provide descriptive statistics for the items measuring detective, preventive, and corrective controls, as well as financial reporting quality. Mean scores are all above 4, indicating a high level of agreement or positive perception among respondents. The median values are consistently at the upper end of the scale, reinforcing the central tendency towards agreement. The standard deviations range from 0.578 to 1.100, reflecting moderate to low variability. All items show significant negative skewness, suggesting that responses are clustered towards higher values. Excess kurtosis values indicate varying levels of peakedness, with some items showing significant leptokurtic distribution. Be that as it may, most of the numerical values of both skewness and kurtosis are with the rule of thumb of -1 and + 1, indicating that the distribution of data is normal as suggested by Sarstedt, Ringle and Hair (2021).

Table 5. Construct reliability and collinearity diagnostics

Variables	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_a)	VIF
Detective Controls	0.785	0.814	0.853	1.641
Preventive Controls	0.857	0.865	0.888	1.515
Corrective Controls	0.781	0.788	0.842	1.537
Financial Reporting Quality	0.829	0.835	0.867	1.642
	R^2	Adjusted R^2		
Quality of Financial Reporting	0.858	0.851		

S o u r c e : author's computation using SmartPLS4.

Table 5 presents construct reliability and collinearity diagnostics for control measures and financial reporting quality. Cronbach's alpha values (0.781 to 0.857) indicate strong internal consistency for detective, preventive and corrective controls, and financial reporting quality. Composite reliability (rho_a) values (0.788 to 0.888) further support reliability. Variance inflation factors (VIFs) (1.515 to 1.642) indicate no significant multicollinearity. The R-squared (0.858) and adjusted R-squared (0.851) for financial reporting quality suggest the model explains a substantial variance.

Table 6. Path coefficients

Constructs	Coefficients	Sample Mean	Standard Dev. (STEVE)	t-statistics	P- values
Detective Controls -> Financial Reporting Quality	0.408	0.408	0.072	5.631	0.000
Preventive Controls -> Financial Reporting Quality	0.067	0.079	0.081	0.830	0.407
Corrective Controls -> Financial Reporting Quality	0.585	0.570	0.073	7.966	0.000

S o u r c e : author's computation using SmartPLS4.

Table 6 presents the path coefficients obtained through bootstrapping, showing the impact of different accounting control mechanisms on financial reporting quality. Corrective controls exhibit the strongest positive influence, with a coefficient of 0.585, a high t-statistic of 7.966, and a p-value of 0.000, signifying a significant and positive effect on improving the quality of financial reporting. Similarly, detective controls display a positive and significant effect, with a coefficient of 0.408, a t-statistic of 5.631, and a p-value of 0.000, underscoring their critical role in enhancing reporting standards. On the other hand, preventive controls show a much weaker relationship, with a coefficient of 0.067, a low t-statistic of 0.830, and a p-value of 0.407, indicating that preventive controls do not have a statistically significant effect on financial reporting quality in this study. This suggests that corrective and detective controls are far more effective in improving financial reporting quality than preventive measures.

Discuss of Findings

Prior research has consistently demonstrated that well-implemented accounting controls mitigate fraud and error risk, thereby enhancing accountability and transparency in financial statements. This alignment underscores the importance of establishing and maintaining stringent internal control mechanisms within organizations. Firstly, the findings of this study reveal that detective controls have a significant impact on the quality of financial reporting in microfinance banks, aligning with previous research by Salameh (2019), Ajao and Oluwadamilola (2020), Arisandi et al. (2022), Pangaribuan et al. (2023), Zakirova et al. (2023), Monteiro et al. (2023), Shareef et al. (2023), Maarouf et al. (2024) and Dominic (2024), all of whom found that detective controls enhance organizational financial reporting quality. This consistent evidence implies that implementing robust detective controls allows microfinance banks to identify and address errors or inconsistencies in their financial reporting processes, thus improving transparency, accuracy, and reliability in financial statements.

However, the findings indicate that preventive controls have no significant impact on the quality of financial reporting in microfinance banks. This suggests that preventive measures, designed to stop errors before they occur, may not be as effective in directly improving the accuracy or reliability of financial reporting in this sector. These results contrast with studies by Hu et al. (2021), Zakariyau and Mustapha (2021), Kwanbo et al. (2023), and Pangaribuan et al. (2023), which found that preventive controls do play a significant role in enhancing organizational financial reporting quality.

Moreover, the findings reveal that corrective controls have a significant impact on the quality of financial reporting in microfinance banks. This suggests that corrective mechanisms, which address and rectify errors after they occur, play a critical role in enhancing the accuracy, reliability, and overall quality of financial reporting. These results are consistent with the findings of Ajao and Oluwadamilola (2020), Setyawan and Gamayuni (2020), Pangaribuan et al. (2023), and Muriithi and Oluoch (2024), who also concluded that corrective controls significantly improve organizational financial reporting quality. However, this contrasts with the findings of Martinez and de-Jesus-Moraes (2024) and Jannah et al. (2024), who found that corrective controls had an insignificant effect on financial reporting quality.

Conclusion

The study emphasizes the vital role of accounting controls in ensuring the quality and reliability of financial reporting in microfinance banks. The study concludes that the positive relationships observed between corrective and detective controls and financial reporting quality align with previous research, highlighting the effectiveness of these controls in detecting and correcting errors and fraud. However, a lack of a strong connection between preventive controls and the quality of financial reporting suggests that organizations should carefully consider the effectiveness of preventive measures in addressing existing issues in financial reporting.

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