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When International Expansion Enhances Audit Quality: Evidence from Foreign Subsidiaries in U.S. Firms

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ABSTRACT

This study aims to examine the effect of foreign subsidiaries on the audit quality of U.S. firms and to assess how institutional distance between European and non-European regions moderates this relationship. The study employs a quantitative approach using panel data regression on 18,849 firm-year observations from 2017–2024. The analysis controls for firm and year fixed effects and applies two-way clustered standard errors to ensure robust estimations. The results show that the presence of foreign subsidiaries has a positive and significant effect on audit quality, supporting the response-dominant hypothesis, which posits that auditors respond to higher audit risks through increased diligence and effort. The effect is stronger for firms with subsidiaries in Europe, where institutional systems and audit practices more closely resemble those in the United States, compared to non-European regions. Overall, the results suggest that cross-border complexity does not necessarily impair audit quality but can enhance it when supported by a strong regulatory environment. The findings extend agency, information complexity, and audit demand theories to a cross-border setting and reinforce the relevance of institutional distance theory. Practically, they highlight the need for enhanced auditor coordination, global audit integration, and adaptive oversight for partially internationalized firms. This study provides new evidence that firms in the early stages of internationalization, those with foreign subsidiaries but not yet full MNCs, can improve audit quality when auditors effectively manage cross-border complexity and institutional differences.

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1. INTRODUCTION

The globalization of the economy has driven U.S. firms to expand their business reach through the establishment or acquisition of foreign subsidiaries. This form of partial internationalization provides strategic advantages such as market expansion, cost efficiency, and strengthened global supply chains (Cuervo-Cazurra, 2011; Fang et al., 2010; Heimberger, 2022; Sartor and Beamish, 2020; Valentino et al., 2018). Within the scientific domain of accounting, particularly the fields of financial accounting, international accounting, and audit quality research, foreign subsidiaries introduce a unique configuration of risks, information asymmetry, and reporting complexity that can materially affect the reliability of consolidated financial statements. As auditors are required to evaluate financial information originating from multiple jurisdictions with heterogeneous legal, institutional, and accounting systems, cross-border expansion represents a critical setting for examining how audit quality is maintained or challenged (Docimo et al., 2021; Guadalupe et al., 2012; Zhou and Wang, 2020). Such cross-jurisdictional complexity increases the risk of financial misstatements and compels auditors to adjust their audit strategies and procedures accordingly (Bowrin and King, 2010; Gunn and Michas, 2018; Rajgopal et al., 2021). Under these conditions, two competing outcomes may emerge: cross-border complexity may reduce audit quality due to increased information asymmetry and risk (*risk-dominant effect*), or it may enhance audit quality if auditors respond to heightened risks by strengthening audit effort and scrutiny (*response-dominant effect*). Understanding how the presence of foreign subsidiaries affects audit quality is therefore critical in the era of globalization and corporate accountability.

Unlike multinational corporations (MNCs), which typically possess mature global control systems and integrated cross border audit coordination, firms with foreign subsidiaries are often in the early stages of internationalization and may lack fully developed governance mechanisms (Chung and Beamish, 2005; Gill-de-Albornoz and Rusanescu, 2018; Heimberger, 2022; Valentino et al., 2018). MNCs are generally audited by the same global networks such as Deloitte, PwC, EY, or KPMG, that apply standardized methodologies and communication protocols (Asiriuwa et al., 2018; DeAngelo, 1981; Gunn and Michas, 2018; Hope et al., 2008; Septiany et al., 2025). In contrast, firms with foreign subsidiaries frequently rely on local component auditors who may differ in language, professional standards, and audit practices, potentially creating audit gaps and weakening coordination (Board, 2022). These challenges intensify when firms expand into countries with legal and reporting systems that diverge substantially from those in the United States. Nevertheless, within a highly regulated environment such as that governed by the PCAOB, lead auditors may offset these risks through enhanced audit intensity and supervision. Consequently, the impact of foreign subsidiaries on audit quality is contextual, depending on how well auditors and firms adapt to cross border complexity.

The theoretical framework of this study draws on agency theory, information complexity theory, and audit quality demand theory. Agency theory (Bendickson et al., 2016; Jensen and Meckling, 2019) posits that the separation between principals and agents creates information asymmetry that becomes more severe when firms operate across multiple jurisdictions, increasing the potential for moral hazard and reporting manipulation (Asiriuwa et al., 2018; Christensen et al., 2016; Rajgopal et al., 2021; Tin, 2021). Information complexity theory (Bowrin and King, 2010; Liu and Li, 2012) emphasizes that as organizational structures grow more complex, auditors face greater difficulty in assessing risk and obtaining sufficient audit evidence, potentially lowering audit quality if complexity is not well managed. Conversely, audit demand theory (DeAngelo, 1981; Francis, 2004) suggests that firms with higher reporting risks are more likely to engage reputable auditors or

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increase audit effort to preserve financial credibility. Integrating these perspectives implies that foreign subsidiaries may reduce audit quality if agency risk and complexity exceed monitoring capacity (*risk-dominant*), or enhance audit quality if auditors and firms respond effectively through stronger oversight and professionalism (*response-dominant*).

Prior empirical evidence remains mixed. Fang et al. (2010) and Docimo et al. (2021) find that foreign subsidiaries heighten audit risk and impair reporting quality due to coordination challenges, whereas Francis (2011) and Gunn and Michas (2018) show that reputable auditors can manage such risks by improving oversight and diligence. This divergence highlights the importance of institutional context in determining the direction of the relationship between internationalization and audit quality. One critical contextual factor is institfutional distance, defined as the degree to which the legal, cultural, and accounting systems of host countries differ from those of the home country (Goksoy et al., 2012; Heidenreich, 2012; Kostova, 1999; Nguyen and Almodóvar, 2018; Valentino et al., 2018; Xiao et al., 2020). Western European countries, such as the United Kingdom, Germany, and the Netherlands, share institutional similarities with the U.S., facilitating more effective audit coordination. In contrast, non-European regions such as Asia, Latin America, and Africa exhibit greater institutional distance, increasing information risk and reducing audit effectiveness (Choi et al., 2010; Gunn and Michas, 2018; Hitt et al., 1997; Hope et al., 2008; Kim et al., 2019). Therefore, institutional distance is expected to moderate the relationship between foreign subsidiaries and audit quality, with stronger effects in countries sharing greater institutional similarity with the United States. Building on this theoretical and empirical foundation, this study investigates the impact of foreign subsidiaries on audit quality among U.S. firms and examines how institutional distance, specifically, between European and non-European regions, moderates this relationship. Three hypotheses are developed for empirical testing:

H1a (Risk-Dominant Hypothesis): The presence of foreign subsidiaries negatively affects the audit quality of U.S. firms.

H1b (Response-Dominant Hypothesis): The presence of foreign subsidiaries positively affects the audit quality of U.S. firms.

H2 (Institutional Distance Hypothesis): The positive effect of foreign subsidiaries on audit quality is stronger for firms with subsidiaries in Europe than for those in non-European regions.

By testing these hypotheses, this study contributes to the literature on audit quality and international business by highlighting how cross border complexity and institutional context shape audit effectiveness. The findings also provide practical insights for auditors, corporate managers, and regulators. For auditors, the results emphasize the importance of cross office coordination and adaptive audit procedures when addressing global risks. For management, the study underscores the need to strengthen cross entity reporting and internal controls. For regulators such as the PCAOB and SEC, the results offer valuable guidance for developing more adaptive cross border audit oversight policies for firms with partially internationalized structures. The figure is shown in **Figure 1** and **Figure 2**.

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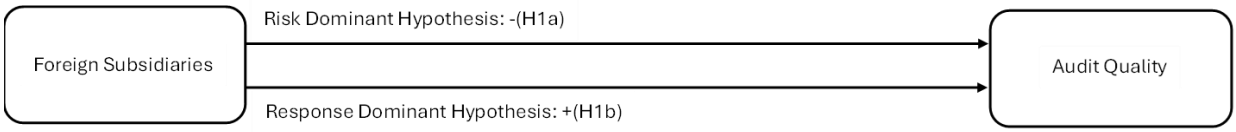

Figure 1. Diagram of H1a and H1b

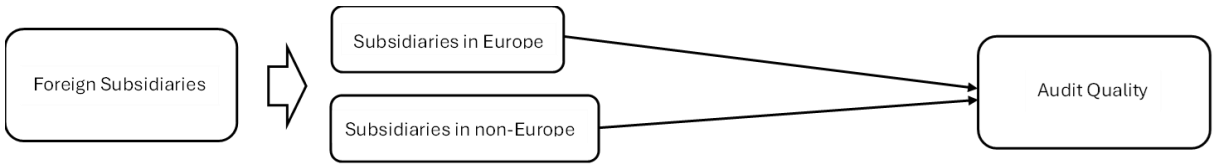

Figure 2. Diagram of H2

2. METHODS

This study utilizes secondary data obtained from Thomson Reuters Eikon/Refinitiv, which provides comprehensive information on financial statements, corporate structures, and cross border subsidiary ownership. This database is selected because of its extensive coverage of publicly listed U.S. firms and its detailed variables relevant to the research objectives, including the location and type of foreign subsidiaries, auditor characteristics, and indicators of corporate governance. Additional audit-related variables, such as auditor type (Big Four vs. non-Big Four) and audit opinions, are extracted from the *Company Financials* and *Auditor Details* modules within Refinitiv.

The sample comprises publicly listed U.S. firms, classified under the North American Industry Classification System (NAICS 31–33), over the period 2017–2024. The sector is selected because it represents one of the industries with the highest levels of internationalization and operational complexity, both of which pose significant auditing challenges when firms maintain foreign subsidiaries (Jiang et al., 2019; Kurniawan et al., 2024; Sumiyana et al., 2023). The study period is designed to capture post–global financial crisis dynamics through the subsequent phase of recovery and global expansion, thereby enabling a representative analysis of long-term cross-border auditing phenomena (Castaldi et al., 2019; Kurniawan et al., 2024; Sumiyana et al., 2023).

Sample construction follows a multi-stage process based on rigorous selection criteria. First, only firms with complete annual financial data and verifiable information on subsidiary ownership available in Refinitiv are included in the initial sample. Second, financial sector firms, such as banks and insurance companies, are excluded due to their unique reporting characteristics and regulatory environments. Third, firms without clearly identified external auditors are eliminated to maintain consistency in audit-related variables. After applying these filters, the study obtains an unbalanced panel dataset comprising several thousand firm-year observations across the sample period. To mitigate the influence of extreme outliers, all financial variables are winsorized at the 1st and 99th percentiles.

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To examine the effect of foreign subsidiaries on the audit quality of U.S. firms, this study employs a quantitative panel data regression approach (Kurniawan et al., 2024; Sumiyana et al., 2023). This method enables the analysis of dynamic relationships among variables while controlling for unobserved heterogeneity across firms and over time. The main empirical model is specified as follows:

$$\text{AuditQuality}_{it} = \beta_0 + \beta_1 \text{ForeignSubsidiary}_{it} + \beta_2 \text{Controls}_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

Where $AuditQuality_{it}$represents the audit quality of firm i in year t; $ForeignSubsidiary_{it}$ is the main variable capturing the presence of foreign subsidiaries; $Controls_{it}$ denotes a vector of control variables reflecting firm-level financial and governance characteristics; μ_i represents firm fixed effects controlling for time-invariant structural differences across firms; λ_t denotes year fixed effects controlling for macroeconomic conditions and changes in audit regulation over time; and ε_{it} is the random error term.

The dependent variable, AuditQuality, is measured using multiple proxies to enhance construct validity and mitigate measurement bias. The primary proxy is the absolute value of discretionary accruals (|DA|), estimated using the Modified Jones Model (Dechow et al., 1995), where higher |DA| values indicate lower audit quality. The key independent variable, ForeignSubsidiary, is a dummy variable that equals 1 if the firm has at least one subsidiary located outside the United States each year, and 0 otherwise. To test the moderating role of institutional distance, the model is extended to differentiate between subsidiaries located in European and non-European regions. The extended specification is expressed as follows:

$$\text{AuditQuality}_{it} = \beta_0 + \beta_1 \text{EuropeSubsidiary}_{it} + \beta_2 \text{NonEuropeSubsidiary}_{it} + \beta_3 \text{Controls}_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

This extended model allows for a formal test of Hypothesis 2, assessing whether the impact of foreign subsidiaries on audit quality differs between regions characterized by lower institutional distance (Europe) and higher institutional distance (non-Europe). To ensure the robustness of the estimated coefficients, all regressions are estimated with two-way clustered standard errors (by firm and year), which account for potential cross-sectional and temporal dependence in the residuals. Through this empirical design, the study systematically tests the two theoretical mechanisms, the risk effect and the response effect and investigates how institutional distance moderates the relationship between firms' international structures and audit quality. Collectively, this approach provides rigorous and generalizable evidence on the cross-border audit oversight of U.S. firms.

The main independent variable in this study is Foreign Subsidiary, which captures the degree of firm internationalization through ownership of subsidiaries located outside the United States. Information on subsidiary ownership is obtained from the Thomson Reuters Eikon/Refinitiv – Ownership and Subsidiary Database, which provides detailed data on subsidiary names, host countries, ownership percentages, and business sectors. For the main analysis, Foreign Subsidiary is defined as a dummy variable that equals 1 if a firm has at least one subsidiary located outside the United States in year *t*, and 0 if all subsidiaries are domestically based. This measurement approach follows Francis (2011) and Christensen et al. (2016), who assess audit complexity based on firms' cross-border operational structures. The binary classification facilitates a clear distinction between firms with international exposure and purely domestic firms, allowing straightforward interpretation of the impact of foreign subsidiaries on audit quality.

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To test Hypothesis H2, the study further distinguishes foreign subsidiaries by their geographical location and institutional distance relative to the United States. Consistent with the framework of institutional proximity (Bella and Abbas, 2025; Castaldi et al., 2019; Hope et al., 2008; Kostova, 1999), host countries are categorized into two groups: (1) Europe Subsidiary = 1 if the firm owns at least one subsidiary in Western or Central European countries that share similar legal systems, reporting standards, and governance structures with the United States. This group includes the United Kingdom, Germany, France, the Netherlands, Belgium, Switzerland, Italy, Spain, Sweden, Denmark, Norway, Finland, and Austria. (2) Non-Europe Subsidiary = 1 if the firm owns at least one subsidiary in non-European regions, such as Asia, Latin America, Africa, or the Middle East, where institutional distance from the United States is generally greater.

This classification allows for a comparative analysis between regions with high versus low institutional proximity to the U.S. Firms may have subsidiaries in more than one region; therefore, the two variables are not mutually exclusive. To ensure data reliability, subsidiary information is cross verified by matching entity names and locations with Legal Entity Identifiers (LEI). Methodologically, the Foreign Subsidiary construct in this study is designed to capture audit complexity arising from cross-border ownership structures, rather than from international sales or trade exposure alone. Hence, this variable directly reflects the coordination challenges between lead auditors in the United States and component auditors in foreign jurisdictions, challenges that are expected to influence the effectiveness of the audit process and the quality of consolidated financial reporting.

Audit quality in this study is measured indirectly through the level of earnings management, using an accrual-based approach originally developed by Jones (1991) and modified by This approach assumes that high-quality auditors are more effective in constraining managers' discretionary accrual choices intended to manipulate reported earnings. Accordingly, firms exhibiting lower discretionary accruals are inferred to have higher audit quality (Becker et al., 1998; Dechow et al., 1995). The estimation of discretionary accruals follows the Modified Jones Model, specified as:

$$\frac{\text{TAi,t}}{\text{ASSETSi,t}-1} = \beta_0 + \beta_1(1/\text{ASSETS}_{i,t-1}) + \beta_2 \frac{\Delta\text{SALESi,t}}{\text{ASSETSi,t}-1} + \beta_3 \frac{\text{PPEi,t}}{\text{ASSETSi,t}-1} + \theta_0 \quad \text{..... (4)}$$

$$\frac{\widehat{\text{TAi,t}}}{\text{ASSETSi,t}-1} = \widehat{\beta_0} + \widehat{\beta_1}\left(\frac{1}{ASSET}\right)_{i,t-1} + \widehat{\beta_2} \frac{\Delta\text{SALESi,t}}{\text{ASSETSi,t}-1} + \widehat{\beta_3} \frac{\text{PPEi,t}}{\text{ASSETSi,t}-1} + \text{.....(5)}$$

$$\text{DA}_{it} = -\left|\widehat{TA_{i,t}} - \text{TA}_{i,t}\right| \quad \text{..... (6)}$$

Where total accruals ($TA_{i,t}$) are computed as the change in current assets minus the change in cash, minus the change in current liabilities, plus the change in short-term debt, and minus depreciation and amortization, all scaled by the lagged total assets. where $PPE_{i,t}$ denotes gross property, plant, and equipment scaled by average total assets, and $ROA_{i,t}$is net income divided by total assets. Discretionary accruals ($DA_{i,t}$) are then calculated as the difference between actual and predicted total accruals.

To ensure a directionally consistent measure, the discretionary accrual values are transformed into absolute values, representing the magnitude of accrual deviations irrespective of the direction of earnings manipulation. These values are then multiplied by –1 so that higher values correspond to higher audit quality, reflecting a lower degree of earnings management. Accordingly, the variable Audit Quality (AQ) represents the auditor's effectiveness in constraining managerial discretion in financial reporting. Higher AQ values indicate that auditors are more effective in detecting and mitigating material misstatements, whereas lower AQ values suggest weaker audit performance and greater tolerance for earnings management. This measurement approach is consistent with

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prior audit quality research (Francis, 2004; Knechel, 2007; Kothari et al., 2005) and provides a robust empirical proxy for capturing the auditor's monitoring effectiveness in financial reporting.

3. RESULTS AND DISCUSSION

3.1. Descriptive Statistic

Table 1 presents the descriptive statistics for all variables used in the analysis, comprising 18,849 firm-year observations. The main variable used to measure earnings management (EM) has a mean value of 0.258 with a standard deviation of 0.306, indicating substantial variation across firms in the level of discretionary accruals. The minimum and maximum EM values range from 0.002 to 2.312, suggesting that some firms engage in relatively low levels of earnings management, while others exhibit considerably higher discretionary accrual activities. The variable AUD, which represents audit quality (measured as the negative of residual-based discretionary accruals), has a mean of –0.258 with an identical standard deviation of 0.306, reflecting a symmetric distribution relative to EM since both serve as complementary measures within the audit quality estimation model.

Firm size (SIZE) has a mean value of 15.767, with a minimum of 10.207 and a maximum of 21.183, indicating a wide dispersion in the scale of operations among U.S. firms. This variation confirms that the sample includes firms ranging from medium-sized manufacturers to large multinational corporations. Leverage (LEV) has an average of 0.290 and a standard deviation of 0.252, implying that most firms maintain a moderate capital structure with debt comprising approximately 29% of total assets. The variable GWH, likely representing goodwill or intangible asset intensity, records a mean of 0.117 and a broad range (from –0.604 to 3.563), highlighting significant differences in intangible asset composition across firms. The market-to-book ratio (MTB) has a mean of 1.608 and a high standard deviation of 1.931, suggesting considerable heterogeneity in firms' market valuations relative to their book equity values, a common proxy for growth opportunities. Finally, the variable LS, representing the presence of foreign subsidiaries, has a mean of 0.444, indicating that approximately 44.4% of the firms in the sample operate at least one subsidiary outside the United States. This finding underscores that nearly half of U.S. public firms in the observation period have engaged in international expansion through ownership of foreign entities.

Table 1. Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
EM	18.849	0,2580	0,3061	0,0021	2,3117
AUD	18.849	-0,2580	0,3061	-2,3117	-0,0021
SIZE	18.849	15,767	2,3898	10,207	21,189
LEV	18.849	0,2897	0,2524	0	1,4664
GWH	18.849	0,1171	0,4353	-0,603	3,5626
MTB	18.849	1,6075	1,9305	0,0428	14,294
LS	18.849	0,4442	0,4968	0	1

Source: Authors own work

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3.2. Correlation Analysis

Table 2 reports the correlation matrix for the key variables used in this study. Overall, the results indicate no serious multicollinearity issues among the independent variables, as all correlation coefficients are well below the critical threshold of 0.80. The correlation between audit quality (AUD) and the presence of foreign subsidiaries (FS) is 0.0336, which, although small in magnitude, is statistically significant at the 1% level. This positive association suggests a slight tendency for firms with foreign subsidiaries to exhibit higher audit quality. In other words, auditors may exercise greater professional caution when facing the heightened complexity associated with cross-border audits.

Several other relevant relationships are also observed. The correlation between firm size (SIZE) and foreign subsidiaries (FS) is 0.2406, indicating that larger firms are more likely to own foreign subsidiaries, consistent with internationalization theory and prior empirical evidence. The correlation between leverage (LEV) and SIZE is 0.0916, a positive but weak relationship implying that larger firms tend to have greater access to external financing. In contrast, the negative correlation between SIZE and LS (–0.3878) suggests that firms with complex operational structures may not have fully aligned their audit frameworks with the demands of international expansion. Other variable relationships also exhibit patterns consistent with theoretical expectations. For instance, the correlations between market-to-book ratio (MTB) and SIZE (0.2389), and between goodwill intensity (GWH) and MTB (0.2066), indicate that larger firms typically possess stronger growth opportunities and higher proportions of intangible assets. Taken together, the observed correlations are reasonable and consistent with the characteristics of publicly listed U.S. firms. Importantly, no excessively high linear associations are detected among variables, suggesting that multicollinearity is not a concern and all variables can be included simultaneously in the empirical regression models without statistical distortion.

Table 2. Correlation

	AUD	FS	SIZE	LEV	GWH	MTB	LS
AUD	1						
FS	0,0336	1					
	0						
SIZE	0,0097	0,2406	1				
	0,1883	0					
LEV	0,0019	-0,0183	0,0916	1			
	0,7901	0,0117	0				
GWH	-0,0135	-0,0167	0,0754	-0,0973	1		
	0,067	0,0219	0	0			
MTB	0,0346	0,0905	0,2389	-0,1491	0,2066	1	
	0	0	0	0	0		
LS	0,0225	-0,0545	-0,3878	0,0449	-0,0336	0,0173	1
	0,002	0	0	0	0	0,0173	

Source: Authors own work

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3.3. Foreign Subsidiaries and Audit Quality

Table 3 presents the results of the main regression analyses examining the effect of foreign subsidiaries (FS) on audit quality among U.S. firms. The models are estimated using panel data regressions with firm and year fixed effects to control for unobserved heterogeneity across firms and over time, as well as industry-specific variations. All models are estimated using 18,849 firm-year observations, with adjusted R-squared values ranging from 0.0011 to 0.3889, indicating a reasonable level of explanatory power across specifications. The coefficient on FS is consistently positive and statistically significant across all model specifications. In column (1), the coefficient for FS is 0.0206, significant at the 1% level. A similar result is observed in column (2), which incorporates both year and industry fixed effects, where the FS coefficient remains positive (0.0159) and significant at the 5% level. In columns (3) and (4), FS continues to exhibit a positive and significant relationship, with coefficients of 0.0178 ($p < 0.01$) and 0.0123 ($p < 0.05$), respectively.

The control variables display mixed results. Firm size (SIZE) shows a positive but statistically insignificant association with audit quality across all models, while leverage (LEV) and goodwill intensity (GWH) yield small, occasionally negative coefficients in certain specifications. The market-to-book ratio (MTB) exhibits a positive and significant effect in several models, consistent with the notion that firms with greater growth opportunities tend to demand higher audit quality. Meanwhile, LS (likely representing the extent of subsidiary linkage or complexity) also shows a positive but relatively small coefficient. Overall, the main regression results reveal a consistent positive association between the presence of foreign subsidiaries and audit quality across different model specifications and measurement approaches. These findings suggest that firms with cross-border subsidiaries tend to exhibit higher audit quality, consistent with the response-dominant hypothesis (H1b), that auditors increase their diligence and audit effort to address the greater complexity and risk associated with multinational operations.

The empirical results show a consistently positive and significant association between the presence of foreign subsidiaries and audit quality, and this pattern merits a deeper theoretical and contextual interpretation. Although foreign subsidiaries inherently introduce higher reporting complexity and greater information asymmetry, the findings suggest that such complexity does not weaken audit outcomes in the U.S. setting. Instead, auditors appear to respond proactively by strengthening analytical procedures, heightening vigilance, and increasing their oversight of foreign component auditors (Budiatmaja and Ramadhan, 2022; Docimo et al., 2021; Nguyen and Almodóvar, 2018; Schmid and Kretschmer, 2010). This response is consistent with audit demand theory, which posits that higher inherent risks in financial reporting stimulate greater demand for credible assurance and compel auditors to intensify their monitoring functions (DeAngelo, 1981; Francis, 2004; Jiang et al., 2019; Xiao et al., 2020). What these results reveal is that when auditors operate under a strong enforcement regime, such as the PCAOB, they do not simply absorb complexity but actively counteract it through expanded audit effort, more rigorous documentation requirements, and increased partner-level involvement. These outcomes help explain why earnings management is lower among firms with foreign subsidiaries, even though theoretical models such as information complexity theory would predict the opposite.

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Interpreting the findings from an audit process perspective reinforces this argument. Foreign subsidiaries obligate auditors to expand their scope of risk assessment to multiple jurisdictions, evaluate the competence and independence of component auditors, and review workpapers prepared abroad. From the perspective of information complexity theory (Bowrin and King, 2010; Liu and Li, 2012; Xiao et al., 2020), the positive association indicates that auditors operating under a robust regulatory regime such as the PCAOB possess a high degree of adaptability in managing informational and procedural complexity across jurisdictions. These procedural requirements create a structural condition in which lead auditors cannot rely passively on foreign audit work but must engage deeply with cross-border audit processes (Board, 2022; Docimo et al., 2021; Gul et al., 2009). Such engagement includes requesting supplemental audit procedures, performing independent testing on high-risk foreign accounts, and coordinating more frequent communication between U.S. and foreign audit teams (Asiriuwa et al., 2018; Jiang et al., 2019; Xiao et al., 2020). Each of these actions represent pathways through which audit effort increases as a direct response to cross-border ownership structures. Thus, the positive coefficient on foreign subsidiaries reflects an adaptive audit system, one that reallocates resources and tightens procedures when the audit environment becomes more complex.

Table 3. The association between foreign subsidiaries and audit quality

	Dependent variable : Audit Quality			
	(1)	**(2)**	**(3)**	**(4)**
FS	0.0206***	0.0159**	0.0178***	0 .0123**
	4,61	3,36	3,76	2,44
SIZE			0.0004	0.0018
			0,41	1,60
LEV			0.0044	-0.0171*
			0,46	-1,71
GWH			-0.0140**	-0.0117**
			-2,59	-2,22
MTB			0.0057***	0.0022*
			4,37	1,74
LS			0.0168**	0.0127**
			3,31	2,42
Cons	-0.2689	-0.2665	-0.2903***	-0.2958***
	-82,73	-76,97	-16,1	-16,45
Robust	No	Yes	No	Yes
Year fixed effect	No	Yes	No	Yes
Industry fixed effect	No	Yes	No	Yes
Obs	18.849	18.849	18.849	18.849
Adj R-Square	0,0011	0,3889	0,0029	0,0268

Source: Authors own work

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The results also suggest that firms with foreign subsidiaries may invest more heavily in internal governance mechanisms to facilitate consolidation and reduce reporting risk. International operations typically require standardized reporting templates, stricter closing procedures, and stronger internal audit functions to integrate financial information from multiple jurisdictions (Castaldi et al., 2019; Majocchi and Strange, 2012; Primacintya and Kusuma, 2025; Schmid and Kretschmer, 2010; Wach, 2017). These improvements in governance create a complementary effect: auditors not only increase their monitoring effort, but they also encounter better internal controls and more structured financial data. This synergy between stronger internal governance and enhanced external audit effort provides another plausible explanation for why audit quality improves rather than deteriorates under cross-border conditions (Jensen and Meckling, 2019). The results therefore highlight that complexity alone does not determine audit outcomes; the organizational and regulatory context in which complexity occurs plays a decisive role.

These results align with international evidence showing that institutional quality moderates the relationship between internationalization and audit outcomes. Prior studies in emerging markets report that weak enforcement, inconsistent audit standards, and fragmented regulatory environments can undermine audit quality when foreign component auditors are involved (Majocchi and Strange, 2012; Wach, 2017). In contrast, the present findings, situated in the U.S. regulatory context, show that strong oversight, high litigation risk, and global audit network integration can reverse the expected negative effects of complexity. This comparative insight reinforces the argument that cross-border audit outcomes are not universal; they are contingent on the interaction between auditor capability, institutional infrastructure, and the nature of the audit network. The positive results observed in this study therefore illustrate how a mature regulatory environment can transform audit complexity into a catalyst for stronger audit performance.

3.4. Europe/Non Europe Subsidiaries and Audit Quality

Table 4 reports the regression results examining the differential effects of subsidiaries located in European (UE) and non-European (NonUE) regions on the audit quality of U.S. firms. The models are estimated using panel regressions with year and industry fixed effects to control for systematic temporal and sectoral variations. The total number of firm-year observations remains 18,849, and the adjusted R-squared values, ranging from 0.0012 to 0.0258, indicate explanatory power consistent with the earlier models.The coefficient for UE, representing firms with subsidiaries in European countries, is positive and statistically significant across all model specifications. In columns (1) and (2), the coefficients of 0.0305 ($p < 0.01$) and 0.0214 ($p < 0.01$) indicate that firms with European subsidiaries exhibit higher levels of audit quality. A similar pattern emerges in columns (3) and (4), with coefficients of 0.0355 ($p < 0.01$) and 0.0185 ($p < 0.05$). These results suggest that subsidiaries located in Europe, where institutional systems, audit standards, and governance practices are more closely aligned with those in the United States, are associated with enhanced audit effectiveness.In contrast, the variable NonUE, representing firms with subsidiaries located in non-European regions, also shows positive but smaller coefficients relative to the European group. The coefficients of 0.0167 ($p < 0.05$) and 0.0140 ($p < 0.05$) in columns (1) and (2), and 0.0190 ($p < 0.01$) and 0.0103 ($p < 0.10$) in columns (3) and (4), indicate that while non-European subsidiaries are also positively associated with audit quality, the magnitude of their effect is relatively weaker. This pattern aligns with the argument that greater institutional distance, characterized by differences in legal systems, accounting standards, and audit enforcement, creates coordination challenges that constrain auditors' ability to achieve consistent audit quality across jurisdictions.

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The control variables exhibit results broadly consistent with those in the prior models. Firm size (SIZE) shows small and generally insignificant coefficients, while leverage (LEV) and goodwill intensity (GWH) display negative associations with audit quality in some specifications. Meanwhile, market-to-book ratio (MTB) and LS maintain positive and significant relationships in several models, reinforcing the notion that firms with stronger growth prospects and more complex ownership structures demand higher-quality audits.Overall, the findings in Table 4 indicate that both European and non-European subsidiaries are positively associated with audit quality, but the effect is stronger for firms with subsidiaries located in Europe. This evidence supports Hypothesis 2, suggesting that institutional proximity to the United States mitigates cross-border audit risk and enhances the effectiveness of audit processes in multinational settings.

Table 4. The association between Europe /Non Europe subsidiaries and audit quality

	Dependent variable : Audit Quality			
	Volatilitas Profitability		**Volatilitas Liquidity**	
	(1)	**(2)**	**(3)**	**(4)**
UE	0.0305***	0.0214***	0.0355***	0.0185**
	4,59	3,25	4,31	2,64
NonUE	0.0167**	0.0140**	0.0190**	0.0103*
	3,45	2,77	3,16	1,94
SIZE			0.0025*	-0.0172
			1,86	-1,72
LEV			-0.0044	-0.0172*
			-0,40	-1,72
GWH			-0.0171**	-0.0116**
			-2,67	-2,20
MTB			0.0054**	0.0022*
			3,47	1,77
LS			0.0191**	0.0129**
			3,19	2,46
Cons	-0.2689	-0.2666	-0.3409***	-0.2949***
	-82,74	-76,98	-15,96	-16,38
Robust	No	Yes	No	Yes
Year fixed effect	No	Yes	No	Yes
Industry fixed effect	No	Yes	No	Yes
Obs	18.849	18.849	18.849	18.849
Adj R-Square	0,0012	0,0258	0,0031	0,0268

Source: Authors own work

The results for Hypothesis 2 (H2) reveal that the positive effect of foreign subsidiaries on audit quality is stronger for firms with subsidiaries located in Europe than for those with subsidiaries in non-European regions. This finding is consistent with institutional distance theory (Hope et al., 2008; Jiang et al., 2019; Kostova, 1999), which posits that the degree of institutional similarity between the home and host countries influences the effectiveness of cross-border coordination. Western European countries, such as the United Kingdom, Germany, and the Netherlands, share similar legal systems, corporate governance frameworks, and audit standards with the United States. This institutional proximity facilitates smoother communication between lead and component auditors,

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enhances cross-jurisdictional accountability, and ultimately improves the quality of consolidated audits (Castaldi et al., 2019; Docimo et al., 2021; Gunn and Michas, 2018; Hope et al., 2008; Rajgopal et al., 2021). In contrast, firms with subsidiaries in non-European regions face greater institutional and cultural differences, including variations in regulatory environments, language, and local audit practices. These disparities exacerbate information risk, weaken coordination between auditors across jurisdictions, and diminish the effectiveness of audit supervision. Thus, while foreign subsidiaries in non-European countries are still positively associated with audit quality, the magnitude of the effect is relatively weaker compared to those in Europe.

The findings provide robust empirical evidence that institutional distance plays a critical role in shaping the effectiveness of cross-border audits. Lead auditors not only face technical challenges in obtaining sufficient and appropriate audit evidence from foreign entities but also institutional constraints that may affect component auditors' adherence to international audit standards. This result is consistent with Francis (2004) who finds that audit quality tends to be higher in environments with stronger legal systems and governance frameworks. Accordingly, the positive effect of foreign subsidiaries on audit quality in this study indicates that cross-border complexity does not automatically impair audit effectiveness, if auditors operate within an institutional context that enables effective control and coordination across borders. Moreover, the results contribute to the broader cross-border audit literature by differentiating between the contexts of foreign subsidiaries and multinational corporations (MNCs). Most prior studies (Castaldi et al., 2019; Francis, 2011; Gul et al., 2009; Kim et al., 2019; Nguyen and Almodóvar, 2018; Xiao et al., 2020) focus on mature MNCs with well-established global control systems and integrated audit networks. In contrast, this study shows that even firms in the early stages of internationalization, those that merely own foreign subsidiaries, can maintain or even enhance audit quality. This outcome is likely driven by auditors' heightened sensitivity to increased audit risk, which motivates them to strengthen audit procedures and professional scrutiny.

The distinction between subsidiaries in Europe and those in non-European regions offers an even deeper understanding of how institutional context shapes audit performance. The stronger positive effect for European subsidiaries indicates that institutional distance influences the efficiency of cross-border audit coordination. Countries in Western and Central Europe maintain legal systems, regulatory environments, and audit traditions that are more closely aligned with those in the United States (Chung and Beamish, 2005; Fang et al., 2010; Schmid and Kretschmer, 2010; Wach, 2017; Zhou and Wang, 2020). As a result, component auditors in these jurisdictions are more likely to follow comparable documentation standards, adopt similar audit methodologies, and operate under stronger professional oversight. Lead auditors in the U.S. can therefore rely on their work with greater confidence, reducing coordination frictions and enabling smoother integration of foreign audit evidence. In contrast, subsidiaries in non-European regions introduce greater heterogeneity in regulatory enforcement, cultural norms, and accounting practices, which complicates audit coordination (Gill-de-Albornoz and Rusanescu, 2018; Kim et al., 2019). Nonetheless, the fact that the coefficients for non-European subsidiaries remain positive suggests that even in contexts with high institutional distance, U.S. auditors possess sufficient capability and incentives to maintain audit effectiveness.

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Overall, the findings demonstrate that foreign subsidiaries serve as both a source of complexity and a trigger for enhanced audit effort. Auditors respond to increased cross-border risks not by scaling back their monitoring but by adopting more intensive procedures that ultimately strengthen audit quality. The results also underscore the importance of institutional proximity in enabling effective cross-border audit coordination, explaining why the positive effects are more pronounced in European contexts. These insights collectively deepen our understanding of how international expansion interacts with the audit process, showing that auditors' adaptive behaviour and the surrounding institutional environment together determine whether complexity becomes a threat or an opportunity for audit quality.

4. CONCLUSION

This study investigates the effect of foreign subsidiaries on the audit quality of U.S. firms and examines how institutional distance between European and non-European regions moderates this relationship. Using 18,849 firm-year observations from 2017–2024, the results show that the presence of foreign subsidiaries has a positive and significant impact on audit quality. This finding supports the response-dominant hypothesis, indicating that auditors respond to cross-border complexity with greater diligence and audit effort. The positive effect is stronger for subsidiaries in Europe, highlighting the importance of institutional similarity in enhancing the effectiveness of cross-border audits. Overall, the results suggest that international complexity does not necessarily reduce audit quality; within a strong regulatory environment like the United States, it can instead strengthen audit coordination and control.

Theoretically, this study extends agency, information complexity, and audit demand theories to the cross-border context and reinforces the relevance of institutional distance theory in explaining variations in global audit effectiveness (Francis, 2011; Heidenreich, 2012; Heimberger, 2022; Jensen and Meckling, 2019). Practically, the findings underscore the need for cross-office auditor coordination, global audit network integration, and harmonized audit methodologies. For regulators such as the PCAOB and SEC, the results emphasize the importance of tailored oversight for firms with partially internationalized structures. Future research should expand the geographic scope and explore auditor coordination, cultural factors, and geographic distance in explaining cross-border audit outcomes. Furthermore, audit quality measurement is still limited to accounting proxies and does not consider differences in auditor networks, which in the future should be further refined by considering audit procedure dimensions, cross-office communication, and auditor specifications (Asiriuwa et al., 2018; Rajgopal et al., 2021). Finally, the grouping of countries into two clusters, European and Non-European, is still aggregated; further research could consider the use of variables capable of controlling for these clusters.

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