

Decoding the Dynamics of Leverage and Accounting Conservatism: Firm Size as a Key Moderator

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Abstract. This study investigates the effect of leverage on accounting conservatism and examines the moderating role of firm size in this relationship. The research is motivated by the need to understand how financial structure influences conservative reporting practices within the framework of agency theory, particularly in manufacturing firms. A quantitative approach is employed using panel data regression analysis based on 85 firm-year observations derived from manufacturing companies listed on the stock exchange over the 2020–2022 period. The sample is selected using purposive sampling to ensure the availability of complete and relevant financial data. Multiple linear regression models are applied, incorporating interaction terms to test the moderating effect of firm size. The findings indicate that leverage has a significant positive effect on accounting conservatism, suggesting that firms with higher debt levels tend to adopt more prudent financial reporting practices to reduce potential conflicts between managers and creditors. Furthermore, firm size is found to significantly moderate this relationship, where larger firms demonstrate a stronger influence of leverage on conservatism due to greater external monitoring, regulatory pressure, and reputational concerns. In contrast, smaller firms exhibit a relatively weaker relationship, which may be attributed to limited resources and lower levels of stakeholder scrutiny. This study concludes that both leverage and firm size play important roles in shaping accounting conservatism. The results emphasize the importance of considering firm-specific characteristics when evaluating financial reporting behavior. The study contributes to the development of accounting literature by providing empirical evidence on the interaction between financial structure and organizational scale in influencing conservatism. The findings offer practical implications for managers, investors, creditors, and regulators in promoting transparency, accountability, and effective financial decision-making.

Keywords: Accounting Conservatism, Agency Theory, Financial Reporting, Firm Size, Leverage, Panel Data Regression

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Introduction

The relationship between leverage and accounting conservatism has been a focal point in accounting and financial research. As an accounting principle, Conservatism encourages cautious financial reporting, prioritizing the recognition of expenses and liabilities over revenues and assets. The dynamics of this principle become especially intriguing in the context of firms with varying levels of leverage, where firm size plays a crucial mediating role (Yusnaini et al., 2019).

Recent studies have highlighted the positive association between leverage and conservatism, suggesting that higher debt levels encourage conservative reporting practices to mitigate agency conflicts between debt holders and shareholders. However, less attention has been given to how firm size mediates this relationship. Larger firms, often under greater scrutiny from investors and regulators, may adopt more conservative practices to sustain credibility, while smaller firms may have less stringent reporting requirements (Adam et al., 2023).

Recent research conducted between 2020 and 2025 has provided valuable insights into the interplay between leverage, firm size, and accounting conservatism, emphasizing the mediating role of various factors in shaping financial reporting practices. Tahir Kabir & Kurawa (2025) examined the influence of board attributes on earnings quality in Nigerian banks, finding that firm size and leverage had an insignificant effect on conservatism in this context. Similarly, Jaimuk et al., (2020) demonstrated that firm size and leverage significantly impact the mediating role of conservatism in the relationship between corporate governance and earnings management. Expanding on this, Aved et al., (2024) identified accounting conservatism as a critical mediator between corporate social responsibility (CSR) activities and dividend payout policies, with firm size and leverage as key determinants.

Further contributions were made by Inayah & Chariri (2024), who revealed that internal control quality mediates managerial ability and conservatism, moderated by firm size and leverage. Likewise, Muhammad et al., (2024) explored how CSR mediates the relationship between board diversity and conservatism, highlighting the impact of firm size and leverage on reporting strategies. Lastly, Maiyo et al., (2025) emphasized the protective role of conservatism in mitigating financial distress,

demonstrating its interaction with firm size and leverage to enhance organizational resilience.

Together, these studies underscore the complexity of the relationships among leverage, firm size, and accounting conservatism. They highlight how various mediating factors, such as CSR, governance, and financial distress, shape the adoption and application of conservative reporting practices across diverse organizational contexts. This body of research advances our understanding of financial decision-making and supports the development of more targeted regulatory and managerial interventions.

This research addresses the gap in understanding how firm size mediates the relationship between leverage and accounting conservatism. Specifically, it analyzes how leverage-induced conservatism varies between small and large firms. This study provides significant contributions to both theory and practice. Theoretically, it enriches the literature by introducing firm size as a moderating variable, a perspective underexplored in prior research (Siriwardena et al., 2024). Practically, the findings can guide policymakers and auditors in tailoring regulations and auditing practices based on firm size to enhance financial transparency and reduce information asymmetry.

Literature Review

Agency Theory

A suitable theoretical foundation for the research on leverage, firm size, and accounting conservatism is Agency Theory. This theory, rooted in economics and organizational behavior, examines the conflicts of interest that arise in principal-agent relationships, such as those between shareholders (principals) and managers (agents). These conflicts are particularly relevant in financial reporting, where managers may have incentives to manipulate financial information to serve their interests, potentially at the expense of shareholders or creditors (Hendrastuti & Harahap, 2023).

In the context of leverage and accounting conservatism, agency theory provides a robust explanation for the adoption of conservative accounting practices. High levels of leverage heighten the potential for agency conflicts between debt holders and shareholders, as debt holders seek assurance that their interests are protected. Accounting conservatism mitigates these conflicts by prioritizing the timely recognition of expenses and liabilities, thereby reducing the risk of overstated

financial health and providing more reliable financial information. This builds trust between the organization and its creditors, ensuring a better alignment of interests.

Firm size further complicates these dynamics, as larger firms face more pronounced agency issues due to their complexity, diverse stakeholder groups, and greater public scrutiny. Larger firms are more likely to adopt conservative accounting practices as a means to address these challenges. By enhancing transparency and reducing information asymmetry, conservatism serves as a mechanism to align the interests of managers with those of shareholders and creditors, fostering credibility and accountability (Darouichi et al., 2021).

Recent empirical studies align with the principles of agency theory. For instance, research by Tahir Kabir & Kurawa (2025) and Javed et al., (2024) highlights the role of accounting conservatism in mitigating conflicts related to leverage, corporate social responsibility, and dividend policies. These studies demonstrate that conservatism is particularly valuable in reducing managerial discretion and ensuring that financial reporting aligns with stakeholders' expectations. Furthermore, the moderating effect of firm size, as identified by studies like Maiyo et al., (2025), underscores how larger firms leverage conservatism to manage heightened agency concerns.

By framing this research within the lens of agency theory, the interplay between leverage, firm size, and accounting conservatism can be systematically analyzed. This theoretical foundation not only explains the adoption of conservative practices but also provides insights into their broader implications for reducing agency costs and enhancing stakeholder relationships.

Leverage

Leverage, defined as the extent to which a company uses debt to finance its operations, plays a significant role in shaping accounting conservatism. High leverage levels often result in greater scrutiny from creditors, prompting firms to adopt conservative accounting practices to maintain financial stability and mitigate risks. Recent studies provide nuanced insights into how leverage influences conservatism across various organizational contexts (Chee & Tham, 2021), (Abernethy & Wallis, 2019), (Moehrle et al., 2013).

Hong & Nguyễn Thị Xuân, (2024) highlighted the critical role of leverage in enhancing accounting

conservatism among Vietnamese firms, particularly those facing financial distress. The study found that firms with higher leverage levels tend to adopt conservative practices to reduce information asymmetry and reassure creditors of their financial integrity. This finding underscores the importance of conservative reporting in preserving stakeholder confidence during economic uncertainty.

Similarly, Gabrielle & Sutrisno (2024) examined the interplay between leverage, auditor size, and related-party transactions in influencing earnings quality. Their research revealed that leverage significantly enhances conservatism by curbing managerial opportunism and promoting transparency. By adopting conservative practices, firms ensure that liabilities and expenses are reported promptly, minimizing the risk of overstating financial performance and protecting creditors' interests.

In the Algerian context, Cheurfi (2024) investigated the determinants of accounting conservatism and identified leverage as a pivotal factor. The study concluded that higher leverage levels encourage conservative reporting to mitigate agency conflicts between creditors and shareholders. This finding aligns with the broader perspective that conservatism acts as a protective mechanism in highly leveraged firms, balancing the interests of diverse stakeholders.

Furthermore, Santiyar & Machdar (2024) explored the role of leverage alongside other factors such as tax incentives and corporate growth. Their research indicated that leverage positively impacts conservatism by reducing managerial risk-taking and ensuring a more cautious financial reporting approach. Conservative practices, in this case, serve as a buffer against potential financial instability stemming from excessive reliance on debt.

Lastly, Bai et al., (2024) examined the relationship between leverage and conservatism in the context of corporate innovation. Their findings revealed that firms with higher leverage are more likely to adopt conservative accounting practices to mitigate the risks associated with innovation investments, particularly in competitive industries. This emphasizes that conservatism is not only a tool for creditor protection but also a strategy for managing broader financial risks in dynamic markets.

These studies collectively demonstrate that leverage serves as a critical driver of accounting conservatism, reinforcing financial stability and protecting stakeholder interests. By adopting conservative practices, leveraged firms can navigate

the challenges of debt obligations, minimize agency conflicts, and sustain long-term financial health.

Accounting Conservatism

Accounting conservatism is a fundamental principle in financial reporting, characterized by a cautious approach that prioritizes the recognition of expenses and liabilities over revenues and assets. This principle ensures that financial statements present a conservative estimate of a firm's financial health, thereby reducing the risk of overstated performance. Recent research has further explored the dynamics of accounting conservatism, emphasizing its role in enhancing financial transparency and mitigating risks.

Hong & Nguyễn Thị Xuân, (2024) analyzed the factors influencing accounting conservatism among Vietnamese firms, including financial distress, company size, and leverage. Their study highlighted that conservatism acts as a mechanism for reducing information asymmetry and protecting creditors' interests. This cautious approach is particularly beneficial in uncertain financial conditions, where stakeholders demand reliable and conservative financial reporting.

Gabrielle & Sutrisno, (2024) focused on the impact of accounting conservatism on earnings quality, emphasizing its interaction with auditor size, leverage, and related-party transactions. They found that conservative reporting practices improve earnings quality by limiting managerial discretion and ensuring timely recognition of losses. This study underscores the critical role of conservatism in fostering transparency and reducing agency conflicts.

In the Algerian context, Cheurfi (2024) identified accounting conservatism as a key tool for mitigating financial risks and aligning the interests of shareholders and creditors. By prioritizing the early recognition of liabilities and losses, conservatism enhances the credibility of financial statements, making it a valuable practice for firms operating in volatile environments.

Santiyar & Machdar (2024) explored accounting conservatism's role in safeguarding firms against financial instability. Their findings revealed that conservatism, influenced by leverage and other factors, is a strategic tool to manage risks associated with high debt levels and rapid corporate growth. This aligns with the broader view that conservatism serves not only as a reporting principle but also as a risk management strategy.

Bai et al., (2024) examined accounting conservatism within the framework of corporate innovation. Their research showed that conservatism plays a protective role, particularly in firms investing in innovation within competitive industries. By adopting conservative reporting practices, firms can effectively manage the financial uncertainties associated with innovation investments, ensuring long-term stability.

These studies collectively highlight the significance of accounting conservatism as a principle beyond cautious reporting. It is crucial in enhancing financial transparency, managing risks, and aligning stakeholder interests. By providing reliable and conservative financial information, firms can build trust with stakeholders and navigate complex financial landscapes more confidently.

Firm Size

Firm size is critical to accounting conservatism, influencing how companies manage their financial reporting practices. Larger firms often face greater scrutiny from regulators, investors, and other stakeholders, which drives the need for more conservative financial reporting. This ensures transparency and helps mitigate potential agency conflicts. Recent research provides diverse perspectives on the role of firm size in shaping accounting conservatism across various contexts.

Umobong (2025) highlighted Nigerian firms' complex relationship between firm size and conservatism. The study revealed that larger firms tend to adopt less conditional conservatism due to increased board independence and size, which may negatively impact cash flow earnings. This suggests that while larger firms have access to more resources, their governance structures can influence the extent to which conservative practices are implemented.

In Vietnam, Hong & Nguyễn Thị Xuân (2024) demonstrated that larger firms are more inclined to adopt conservative accounting practices to address heightened stakeholder expectations and minimize financial risks. The study emphasized the importance of firm size as a mechanism to manage external pressures, particularly in markets where transparency is a priority for investors and regulators.

Similarly, (Alrobai & Albaz, 2024) examined the Saudi Arabian context and found that firm size indirectly affects accounting conservatism by moderating the relationship between leverage and earnings management. While firm size did not have a direct influence, its interaction with other financial

variables underscored its importance in shaping overall conservatism strategies.

Chouaibi (2024) offered a European perspective, analyzing the STOXX EUROPE 600 companies. The research confirmed that larger firms adopt higher levels of conservatism to mitigate agency conflicts and enhance investor confidence. This finding aligns with the consensus that larger firms prioritize conservative reporting to navigate complex stakeholder relationships effectively.

However, not all studies found a strong relationship between firm size and conservatism. Sarra (2024) explored Algerian firms and concluded that firm size had no significant impact on accounting conservatism. The study suggested that in certain contexts, other factors like profitability and industry-specific characteristics may play a more dominant role than firm size.

Hypothesis Development

The Effect of Leverage on Accounting Conservatism

Leverage plays a pivotal role in shaping accounting conservatism, particularly through the lens of agency theory. Agency theory emphasizes the conflicts of interest between principals (shareholders) and agents (managers), as well as between creditors and shareholders. Leverage heightens these conflicts, as creditors seek assurance that their investments are protected and not misappropriated by management or shareholders. Accounting conservatism serves as a mechanism to address these concerns by promoting cautious financial reporting, which ensures timely recognition of liabilities and losses, thereby reducing the risk of overstated financial performance.

Studies such as those by Hong & Nguyễn Thị Xuân (2024) and Gabrielle & Sutrisno (2024) support this theoretical perspective by demonstrating that firms with higher leverage levels are more likely to adopt conservative accounting practices. These practices reassure creditors by reducing information asymmetry and enhancing financial transparency. Conservatism acts as a safeguard, ensuring that debt-related risks are adequately recognized, which aligns with creditors' interests and mitigates agency conflicts.

Moreover, Cheurfi (2024) highlighted the importance of leverage in encouraging conservative reporting, particularly in contexts with high financial risk. This finding is consistent with agency theory's proposition that debt covenants and creditor oversight incentivize firms to adopt conservative

accounting practices to maintain their access to capital. Additionally, Santiyar & Machdar (2024) illustrated that leverage limits managerial risk-taking by imposing stricter financial controls, further underscoring the role of conservatism in aligning management decisions with creditor expectations.

Based on agency theory and the findings of these studies, the following hypothesis is proposed:

H₁: Leverage has a positive effect on accounting conservatism.

The Effect of Leverage on Accounting Conservatism with Firm Size as a Moderator

The relationship between leverage and accounting conservatism becomes more nuanced when firm size is considered as a moderating factor. According to agency theory, leverage intensifies the conflicts of interest between shareholders and creditors, prompting firms to adopt conservative accounting practices. However, the influence of leverage on conservatism may vary significantly depending on the size of the firm, as larger firms tend to operate under greater scrutiny from regulators and stakeholders, whereas smaller firms often face less external pressure.

Larger firms are typically more incentivized to adopt conservative accounting practices to maintain their credibility and manage complex stakeholder relationships. Studies such as Hong & Nguyễn Thị Xuân (2024), Chouaibi (2024), and Hong & Nguyễn Thị Xuân (2024) emphasize that larger firms are more likely to embrace conservatism in response to leverage because of heightened regulatory oversight and the need to address diverse stakeholder expectations. This suggests that firm size amplifies the positive relationship between leverage and conservatism by increasing the perceived need for financial prudence.

On the other hand, smaller firms may not exhibit the same level of conservatism in response to leverage. Cheurfi (2024) found that firm size had an insignificant effect on accounting conservatism in Algerian firms, highlighting the context-dependent nature of this relationship. Smaller firms often have fewer resources to implement conservative practices and face lower external scrutiny, reducing the moderating impact of size on the leverage-conservatism dynamic.

In addition, Alrobai & Albaz (2024) demonstrated that firm size moderates the relationship between leverage and conservatism indirectly. For instance, larger firms with high leverage are more likely to

prioritize conservative reporting as a strategy to mitigate agency conflicts and maintain access to capital markets. This interplay highlights the complex interactions between leverage, firm size, and conservatism in financial reporting practices.

Based on these insights, the following hypothesis is proposed:

H₂: Firm size positively moderates the effect of leverage on accounting conservatism.

Research Method

This research adopts a quantitative method to analyze the relationship between leverage, firm size, and accounting conservatism, supported by empirical data from previous studies (Hong & Nguyễn Thị Xuân (2024); (Ben Fatma & Chouaibi, 2024)). Quantitative research is particularly well-suited for testing hypotheses and examining the causal relationships between variables in financial and accounting contexts (Creswell & Creswell, 2018). By using firm size as both a moderator and mediator, this approach allows for a nuanced understanding of how leverage impacts accounting conservatism across different organizational contexts.

The study employs a statistical modeling approach to evaluate the mediating and moderating effects of firm size. Following the methodological recommendations of Hong & Nguyễn Thị Xuân (2024) and (Alrobai & Albaz, 2024), multiple regression analysis is utilized to assess the direct and indirect relationships between leverage, firm size, and conservatism. This method enables the decomposition of the mediating role of firm size while simultaneously testing its moderating influence. Such an approach is widely recognized for its ability to identify complex interactions between financial variables.

To ensure the robustness of the analysis, secondary data is collected from publicly available financial reports and databases, similar to the approach taken by Gabrielle & Sutrisno (2024). Leverage is measured as the ratio of total debt to total assets, accounting conservatism is assessed using established proxies such as the Basu model (1997), and firm size is represented by the natural logarithm of total assets, consistent with prior research (Ben Fatma & Chouaibi, 2024); (Cheurfi, 2024)).

This quantitative approach is designed to provide statistically valid and generalizable insights into the interplay between leverage, firm size, and accounting conservatism. By using empirical data and rigorous statistical techniques, this research aims to contribute

to the growing body of literature on financial reporting and agency theory, offering valuable insights for both academics and practitioners.

Data

This research utilizes financial reports from manufacturing companies listed on the stock exchange during the period 2020 to 2022. The total population consists of all manufacturing firms listed within this period. From this population, a sample of 85 firm-year observations was selected using a purposive sampling method based on the following criteria: (1) companies consistently listed during the 2020–2022 period, (2) companies that published complete annual financial reports, (3) companies with complete data required to measure leverage, firm size, and accounting conservatism, and (4) companies that did not experience delisting during the observation period.

The data used in this study comprise financial information extracted from publicly available annual reports and financial databases. These reports serve as the primary source for measuring variables such as leverage, firm size, and accounting conservatism. Leverage is calculated as the ratio of total debt to total assets, a measure commonly used in prior studies (e.g., Nguyen et al., 2024; Santiyar & Machdar, 2024). Firm size is measured using the natural logarithm of total assets, which is widely adopted in accounting research to reduce scale differences and data variability (Chouaibi, 2024; Alrobai & Albaz, 2024).

Accounting conservatism is assessed using established proxies based on prior literature, particularly the asymmetric timeliness of earnings approach introduced by Basu (1997), which captures the tendency of firms to recognize losses more quickly than gains. This proxy has been extensively used and further applied in recent studies (e.g., Gabrielle & Sutrisno, 2024; Cheurfi, 2024) to measure conservative financial reporting practices.

The data analysis method employed in this study is multiple linear regression analysis, conducted using the SPSS version 25 software program. Multiple linear regression is a robust statistical tool that allows for examining the direct, indirect, and interactive effects of leverage and firm size on accounting conservatism. This method ensures the reliability and validity of the results, providing comprehensive insights into the dynamics of financial reporting practices in manufacturing firms.

The manufacturing sector was selected as the focus of this study because it plays a significant role in the economy and often faces intense scrutiny from stakeholders, including creditors and investors. This sector is characterized by diverse firm sizes, financial structures, and reporting practices, making it an ideal context for investigating the interplay between leverage, firm size, and accounting conservatism. By analyzing financial reports over three years, this study aims to provide a comprehensive understanding of these relationships and their implications for financial reporting and decision-making.

Results and Discussion

Results

Descriptive Statistics

The results of the descriptive analysis obtained are summarized in Table 1.

Table 1
Descriptive Statistics

Variable	Min	Max	Mean	Std Deviation
Leverage (X)	0.002000	7.941000	0.841575	0.880011
Accounting Conservatism (Y)	0.106000	74.39100	3.291945	7.923202
Firm Size (Z)	25.07900	33.65500	28.68554	1.623225

The descriptive statistics in Table 1 provide an overview of the key variables used in this study: leverage (X), accounting conservatism (Y), and firm size (Z). These statistics include the minimum, maximum, mean, and standard deviation values, offering insights into the distribution and variability of the data.

The leverage variable, which measures the ratio of total debt to total assets, has a minimum value of 0.002 and a maximum value of 7.941, indicating a wide range of debt levels among the sampled firms. The mean value of 0.842 suggests that, on average, firms rely on debt for approximately 84.2% of their asset financing. The standard deviation of 0.880 reflects moderate variability in leverage levels across the sample, indicating that while some firms are highly leveraged, others maintain significantly lower debt ratios.

The accounting conservatism variable has a minimum value of 0.106 and a maximum value of

74.391, with a mean of 3.292. The high maximum value relative to the mean suggests that certain firms exhibit extreme levels of conservatism in financial reporting, possibly due to specific financial or industry-related conditions. The standard deviation of 7.923 indicates significant variation in conservatism levels, highlighting differences in firms' approaches to financial reporting, potentially influenced by leverage and firm size.

Firm size, represented by the natural logarithm of total assets, has a minimum value of 25.079 and a maximum value of 33.655, with a mean of 28.686. This indicates that the sample includes both small and large firms, with the average firm size being closer to larger entities. The standard deviation of 1.623 suggests moderate variability in firm size across the sample, reflecting a mix of firms operating at different scales within the manufacturing sector.

Choosing the Panel Data Regression Model

The model used in this study is panel data regression, which tests the model specifications and the suitability of theories with reality. Ordinary least square model (OLS) or common effect model (CEM) Hausman Test (Fixed Effect Random Effect).

Table 2
Chow Test Results

Effects Test	Statistic	d.f	Prob.
Cross-section F	3.317166	(84.167)	0.0000
Cross-section Chi-square	249.306612	84	0.0000

Cross-section F Test

The cross-section F test statistic of 3.317166 and the associated p-value of 0.0000 indicate that the null hypothesis of the Chow test is rejected. This means the fixed effects model is preferred over the common effect model. In other words, the data show significant variation across firms, and the fixed effects model can better account for these differences.

Cross-section Chi-square Test

The cross-section Chi-square statistic of 249.306612 and its p-value of 0.0000 further confirm the preference for the fixed effects model. This test corroborates the findings of the F test, suggesting that the inclusion of fixed effects (firm-specific characteristics) improves the model's ability to

explain variations in accounting conservatism and its relationship with leverage and firm size.

The results of the Chow test demonstrate that the fixed effects model is more appropriate than the common effect model for this study. This indicates that firm-specific factors, such as unique governance structures, market conditions, and financial policies, significantly influence the relationship between leverage, accounting conservatism, and firm size. By choosing the fixed effects model, the study ensures that these unobservable, firm-specific effects are accounted for, leading to more accurate and reliable results.

The next step involves testing whether the fixed effects model or the random effects model is better suited for the analysis using the Hausman test. This ensures that the chosen model aligns with both theoretical and empirical considerations for the study's objectives.

Table 3
Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.588628	2	0.1662

Chi-Square Statistic

The test yielded a Chi-Square statistic of 3.588628 with 2 degrees of freedom. This value represents the difference between the estimators of the fixed effects model and the random effects model.

Probability (p-value)

The p-value of 0.1662 is greater than the conventional significance level (e.g., 0.05). This indicates that the null hypothesis of the Hausman test cannot be rejected. The null hypothesis states that the random effects model is appropriate and that the differences between the fixed and random effects estimates are not statistically significant.

Based on the Hausman test results, the random effects model (REM) is the more appropriate model for this study. The failure to reject the null hypothesis suggests that the assumptions underlying the random effects model are valid. Specifically, the random effects model assumes that the individual firm-specific effects are uncorrelated with the independent variables in the model, making REM both efficient and consistent in this case.

Table 4
Lagrange Multiplier (LM) Test Results

	Test Hypothesis		
	Cross-Section	Time	Both
Breusch-Pagan	45.84461 (0.0000)	0.007989 (0.9288)	45.85259 (0.0000)

Cross-Section Random Effects

The Breusch-Pagan statistic for the cross-section is 45.84461, with a p-value of 0.0000. Since the p-value is below the conventional significance level of 0.05, the null hypothesis of no cross-sectional random effects is rejected. This indicates the presence of significant random effects across the firms in the sample.

Time Random Effects

For the time dimension, the Breusch-Pagan statistic is 0.007989, with a p-value of 0.9288. The high p-value indicates that the null hypothesis of no time-based random effects cannot be rejected. This suggests that there are no significant random effects in the time dimension of the data.

Both Cross-Section and Time Random Effects

When considering both dimensions, the Breusch-Pagan statistic is 45.85259, with a p-value of 0.0000. This confirms the presence of significant random effects primarily driven by cross-sectional variations among firms, rather than time-based effects.

The results of the LM test indicate that the random effects model is preferred over the OLS model, as there are significant random effects in the cross-sectional dimension. This suggests that firm-specific differences, such as size, leverage, or industry characteristics, are influential and need to be accounted for in the analysis.

The Effect of Leverage on Accounting Conservatism

Table 5
Panel Least Squares

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	2.059665	0.842972	2.443337	0.0152
X	1.456654	0.615377	2.367093	0.0187

The constant term has a coefficient of 2.059665 with a standard error of 0.842972, resulting in a t-statistic of 2.443337 and a p-value of 0.0152. Since the p-value is below the significance level of 0.05, the constant is statistically significant. This indicates

that even in the absence of leverage ($X = 0$), accounting conservatism (Y) has a positive baseline value of approximately 2.06.

The leverage variable has a coefficient of 1.456654 with a standard error of 0.615377, yielding a t-statistic of 2.367093 and a p-value of 0.0187. The positive coefficient indicates that leverage has a significant positive effect on accounting conservatism. For every one-unit increase in leverage, accounting conservatism increases by approximately 1.46 units. The p-value, being below the 0.05 threshold, confirms that this relationship is statistically significant.

The results suggest that leverage has a meaningful and positive impact on accounting conservatism. This finding aligns with agency theory, which posits that firms with higher leverage levels are more likely to adopt conservative financial reporting practices to mitigate agency conflicts between creditors and shareholders. By increasing conservatism, firms reduce information asymmetry, build creditor confidence, and ensure more reliable financial reporting. Then, H1 is Accepted.

The Effect of Leverage on Accounting Conservatism with Firm Size as a Moderator

Table 6
Panel Least Squares 1

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	-2.899280	11.73287	-0.247108	0.8050
X	1.440682	0.617094	2.334624	0.0204
Z	0.173354	0.408801	0.424054	0.6719

Table 7
Panel Least Squares 2

Variable	Coefficient	Std Error	t-Statistics	Prob.
C	18.46966	15.54738	1.187960	0.2360
X	-22.27847	11.90321	-1.871635	0.0624
Z	-0.578665	0.543827	-1.064061	0.2883
XZ	0.833125	0.416719	1.999251	0.0467

Table 6 presents the initial results of the panel least squares regression, examining the direct effects of leverage (X), firm size (Z), and the constant term (C) on accounting conservatism. The constant term has a coefficient of -2.899280, but its p-value of 0.8050 indicates that it is not statistically significant. Leverage (X) has a positive coefficient of 1.440682 and a statistically significant p-value of 0.0204, suggesting that leverage positively impacts accounting conservatism. This finding aligns with prior research and agency theory, which posits that firms with higher debt levels are more likely to adopt

conservative reporting practices to mitigate agency conflicts. However, firm size (Z) has a small and statistically insignificant coefficient of 0.173354 (p-value: 0.6719), indicating that firm size does not independently influence accounting conservatism in this model.

Table 7 incorporates the interaction term (XZ) to examine the moderating effect of firm size (Z) on the relationship between leverage (X) and accounting conservatism. The coefficient for leverage (X) becomes negative (-22.27847) but is only marginally significant with a p-value of 0.0624. Firm size (Z) has a negative coefficient of -0.578665, but it remains statistically insignificant (p-value: 0.2883). Importantly, the interaction term (XZ) has a positive coefficient of 0.833125 and a statistically significant p-value of 0.0467, suggesting that firm size moderates the relationship between leverage and accounting conservatism. This implies that larger firms strengthen the positive effect of leverage on conservatism, likely due to greater scrutiny and the need for enhanced transparency. Overall, the inclusion of the interaction term highlights the importance of considering firm size in understanding the dynamics of leverage and accounting conservatism.

Discussion

The Effect of Leverage on Accounting Conservatism

The results of the analysis reveal that leverage has a significant and positive effect on accounting conservatism, consistent with the predictions of agency theory. Firms with higher levels of debt are more likely to adopt conservative financial reporting practices to mitigate agency conflicts between shareholders and creditors. By recognizing liabilities and losses earlier and deferring the recognition of revenues and gains, conservatism reduces information asymmetry and reassures creditors that managerial decisions align with their interests. This finding aligns with prior research, such as Hong & Nguyễn Thị Xuân (2024) and Gabrielle & Sutrisno (2024), which emphasized the role of leverage in promoting conservative accounting as a mechanism to protect creditor interests and manage financial risk.

Furthermore, the significance of leverage in influencing conservatism underscores its importance as a governance tool, particularly in highly leveraged firms. The results suggest that as firms take on more debt, they face greater external pressures to ensure

accurate and reliable financial reporting. This relationship reflects the role of conservatism in fostering trust and credibility, particularly in contexts where creditors demand more transparent and cautious reporting practices. The findings also support the idea that leverage-induced conservatism helps safeguard the financial health of firms by reducing the risk of overstatement and minimizing potential conflicts arising from opportunistic managerial behavior.

In addition to confirming the positive association between leverage and conservatism, the study highlights the need for further exploration of contextual factors, such as firm size and industry characteristics, that may influence the strength of this relationship. These results contribute to the broader understanding of how financial structure impacts reporting practices and provide practical implications for stakeholders, including creditors, regulators, and investors, who rely on accurate and conservative financial information for decision-making.

The Effect of Leverage on Accounting Conservatism with Firm Size as a Moderator

The findings of the analysis indicate that firm size significantly moderates the relationship between leverage and accounting conservatism. While leverage positively influences conservatism, the strength of this relationship is amplified in larger firms due to their increased visibility and heightened scrutiny from stakeholders, such as creditors, investors, and regulators. The statistically significant interaction term (XZ) highlights that firm size enhances the leverage-conservatism dynamic, supporting the premise that larger firms face greater external pressures to adopt cautious financial reporting practices. This is consistent with prior studies, such as Ben Fatma & Chouaibi, (2024) and Hong & Nguyễn Thị Xuân (2024), which demonstrated that larger firms are more likely to use conservative accounting as a mechanism to manage agency conflicts and maintain stakeholder confidence.

Conversely, the results suggest that smaller firms do not exhibit the same level of conservatism in response to leverage. This could be attributed to reduced regulatory oversight and less pressure from stakeholders, which allows smaller firms greater flexibility in their financial reporting practices. Smaller firms may also have limited resources to implement rigorous governance mechanisms, reducing the effectiveness of conservatism as a risk

management tool. The findings align with Cheurfi (2024), who noted that firm size plays a critical role in shaping financial reporting behaviors, particularly in mitigating the risks associated with high debt levels.

Conclusion

This research aimed to analyze the effect of leverage on accounting conservatism and the moderating role of firm size. The results indicate that leverage has a significant positive influence on accounting conservatism, meaning that firms with higher debt levels are more likely to adopt cautious financial reporting practices. This supports the premise of agency theory, which suggests that conservatism helps mitigate agency conflicts by enhancing transparency, reducing information asymmetry, and protecting creditors' interests.

The findings further reveal that firm size significantly moderates the relationship between leverage and accounting conservatism. Larger firms demonstrate a stronger relationship between these variables, likely due to greater scrutiny from stakeholders and regulators, as well as the need for enhanced accountability and credibility. Conversely, smaller firms exhibit a weaker effect, which can be attributed to lower external pressure and fewer resources allocated to governance and financial reporting practices. These results align with prior studies that emphasize the heightened role of conservatism in larger firms to manage stakeholder expectations and risks.

This research contributes to theory by expanding the literature on accounting conservatism, particularly in the context of leverage and firm size. It affirms that firm size amplifies the impact of leverage on conservatism, highlighting the contextual factors that influence financial reporting practices. Practically, the study provides insights for stakeholders, including creditors, investors, and regulators, by emphasizing the need for tailored governance mechanisms that account for firm size in mitigating financial risks.

The results also offer practical implications for managers of highly leveraged firms, particularly larger organizations, to strengthen the application of accounting conservatism in financial reporting in order to build stakeholder trust and reduce agency conflicts. Meanwhile, smaller firms are encouraged to enhance transparency and improve the quality of their financial reporting practices to achieve similar benefits, despite having lower external pressure.

However, this study has several limitations that should be acknowledged. First, the study is limited to manufacturing companies over the 2020–2022 period, which may restrict the generalizability of the findings to other sectors or longer time horizons. Second, the measurement of accounting conservatism relies on a single proxy, which may not fully capture the multidimensional nature of conservatism. Third, this study only examines firm size as a moderating variable, while other potentially important factors such as profitability, liquidity, corporate governance mechanisms, and market conditions are not included in the model.

Therefore, future research is recommended to expand the sample across different industries and longer observation periods, apply multiple proxies of accounting conservatism, and incorporate additional moderating or mediating variables. This would provide a more comprehensive understanding of the factors influencing the relationship between leverage and accounting conservatism.

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