Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Impact of Corporate Governance on Accounting Conservatism and Company Performance

Firas Mahmood Mustafa[1], Muhamad Falih Hassan AL-Kanani[2], Adel Subhe[3], Nazar Flayih Hassan[4]

Abstract

The financial reporting and performance of a company are greatly impacted by corporate governance. Accounting conservatism, which involves promptly acknowledging possible losses and delaying the recognition of profits, plays a crucial role in this evolving scenario. Having strong corporate governance can improve accounting conservatism, which in turn influences the overall performance of the company.The article intends to investigate how corporate governance influences accounting conservatism and assess the resulting impact on company performance.The study utilizes a quantitative methodology, examining information from a decade-long span (2010-2020) of 150 companies that are listed on the stock market. Important measures of corporate governance like board independence, CEO duality, and audit committee effectiveness were analyzed along with accounting conservatism and key performance indicators such as return on assets (ROA) and earnings per share (EPS).The analysis shows a direct correlation between effective corporate governance and accounting conservatism. Companies that have a greater level of independence on their board of directors showed a 15% increase in their conservatism index when compared to companies with lower board independence. Moreover, companies that utilized more stringent accounting practices experienced a 10% rise in Return on Assets (ROA) and an 8% enhancement in Earnings Per Share (EPS) throughout the research duration.The results indicate that strong corporate governance improves accounting conservatism, leading to a positive impact on company performance. These findings highlight the significance of utilizing successful governance measures to guarantee financial stability and increased shareholder value.

Keywords: *Corporate Governance, Accounting Conservatism, Company Performance, Board Independence, CEO Duality, Audit Committee Effectiveness, Return on Assets (ROA), Earnings Per Share (EPS), Financial Stability, Shareholder Value.*

Introduction

Corporate governance plays a crucial role in overseeing companies, impacting their financial reporting practices and overall performance. The effective corporate governance mechanisms and structures are essential for mitigating risks, improving transparency, and ensuring the reliability of financial information. Accounting conservatism is an important part of financial reporting that is impacted by corporate governance. The accounting principle of conservatism involves quickly acknowledging possible losses and delaying the acknowledgement of gains to prevent exaggerating a company's financial well-being. This cautious financial reporting approach is intended to offer stakeholders a more conservative and realistic perspective of a company's financial status, ultimately improving decision-making and supporting financial stability.

Extensive academic research has delved into the correlation between corporate governance and accounting conservatism. Multiple research papers have emphasized the significance of corporate governance characteristics in promoting cautious accounting methods. Some key factors frequently mentioned as influencing the quality of financial reporting include board independence, CEO duality, and the effectiveness of audit committees [1], [2], [3]. Yet, the empirical proof regarding the relationship between these governing mechanisms and accounting conservatism is incomplete and occasionally uncertain. Recent research has aimed to clarify this connection by analyzing different governance characteristics and how they affect accounting conservatism. Research has indicated that strong governance measures, like having independent directors and efficient audit committees, are linked to increased levels of accounting conservatism [4], [5], [6]. On the other hand, less strong governance systems could result in less cautious

[1] Alnoor University, Nineveh, 41012, Iraq, Email: firas.mahmood@alnoor.edu.iq, ORCID: 0009-0009-5437-5450.
[2] Al Mansour University College, Baghdad 10067, Iraq, Email: muhamad.falih@muc.edu.iq, ORCID: 0009-0007-1640-3735.
[3] Al-Turath University, Baghdad 10013, Iraq, Email: adel.subhe@uoturath.edu.iq, ORCID: 0009-0007-3419-8181
[4] Al-Rafidain University College, Baghdad 10064, Iraq Email: nazar@ruc.edu.iq, ORCID: 0000-0001-5511-6447.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

accounting methods, which may jeopardize the accuracy of financial reports and raise the possibility of financial inaccuracies [7], [8], [9].

Despite the increasing amount of research on the subject, there is still a significant lack of understanding the complete effects of corporate governance on accounting conservatism and how it affects overall company performance. The diversity in corporate governance setups among various companies and regions adds complexity to this matter, making it difficult to come to broad conclusions. Additionally, some research indicates that accounting conservatism improves financial stability and investor trust, but others believe that too much conservatism can impede growth and profitability by undervaluing assets and potential earnings [10], [11], [12].

This article seeks to fill these gaps through a comprehensive empirical study on how corporate governance and accounting conservatism are related and how they impact company performance. This research aims to offer strong evidence on how certain governance characteristics impact accounting conservatism by examining data from 150 publicly traded companies from 2010 to 2020. The study will concentrate on important governance indicators like board independence, CEO duality, and audit committee effectiveness, in addition to metrics of accounting conservatism and business performance indicators such as return on assets (ROA) and earnings per share (EPS).

It is anticipated that the results of this research will make a substantial contribution to current literature by offering a more detailed insight into how corporate governance and accounting conservatism interact. This study seeks to emphasize the vital importance of efficient governing procedures in improving the standard of financial reporting and encouraging financial stability. Moreover, the study aims to provide valuable insights for policymakers, corporate executives, and stakeholders by explaining the influence of accounting conservatism on company performance, underscoring the significance of implementing strict governance practices for long-term business prosperity [13], [14], [15].

The article aims to address the significant gap in study by exploring how corporate governance affects both accounting conservatism and company performance. In doing this, the goal is to establish a thorough structure that highlights the significance of strong governance mechanisms in promoting cautious financial reporting practices and improving corporate performance as a whole.

Study Objective

The articles aim to offer a thorough examination of how corporate governance and accounting conservatism are interconnected and the resulting effect on company performance. In the fast-changing world of business today, maintaining the accuracy and trustworthiness of financial reporting is crucial. Corporate governance mechanisms are essential for guaranteeing the accuracy of financial statements and their reflection of a company's actual financial well-being. Accounting conservatism, by recognizing potential losses carefully and delaying the recognition of gains, is an essential part of financial reporting that can impact stakeholders' views and decisions.

This study seeks to explore how certain elements of corporate governance, such as board independence, CEO duality, and audit committee performance, impact the degree of accounting conservatism in companies. The study aims to measure how strong governance practices impact conservative accounting criteria by analyzing data from 150 publicly traded companies from 2010 to 2020. Furthermore, the research also examines how accounting conservatism impacts company performance measures such as return on assets (ROA) and earnings per share (EPS).

The main aim is to understand how strong corporate governance can improve the quality of financial reporting and ensure financial stability, ultimately leading to better performance and value for shareholders. The results of this research are anticipated to offer useful information for decision-makers, business leaders, and interested parties, underscoring the significance of implementing strict governance measures to guarantee long-term business flourishing.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Problem Statement

The complex connection between corporate governance and financial performance has always been a central topic of discussion among academics and professionals. Nevertheless, the precise influence of corporate governance on accounting conservatism within this wider framework has not been thoroughly investigated, nor has its resulting impact on company performance. Accounting conservatism, which involves being cautious in recording possible losses and delaying the recording of profits, is a key concept in financial reporting that serves as a protection against the exaggeration of financial well-being. Although its significance is recognized, the full impact of corporate governance mechanisms on accounting conservatism, and subsequently on overall company performance, remains not fully comprehended.

The inconsistent use of accounting conservatism can result from the differences in corporate governance structures among various companies, posing a major challenge. Commonly mentioned as influencing the quality of financial reporting are important governance characteristics like board independence, CEO duality, and the effectiveness of the audit committee. Yet, there is a lack of solid empirical evidence regarding the interaction of these factors in influencing accounting conservatism. This gap in the research poses a significant problem for stakeholders who depend on clear and trustworthy financial data for making decisions.

Furthermore, the disagreement about the influence of accounting conservatism on corporate performance adds to the complexity of the situation. While some research indicates that conservative accounting methods can improve financial stability and investor trust, others believe that too much conservatism can obstruct growth and profitability by underestimating the value of assets and earnings prospects. This contrast underscores the importance of having a detailed comprehension of the circumstances in which accounting conservatism enhances company performance.

This article aims to tackle the lack of thorough, factual research on how corporate governance affects accounting conservatism and its impact on company performance. This study seeks to address this significant gap by examining information from 150 companies listed on the stock exchange over a period of ten years. It aims to offer strong proof on how governance practices impact financial reporting conservatism and how this impact influences important performance metrics like return on assets (ROA) and earnings per share (EPS). Tackling this issue is crucial for guiding corporate governance procedures and improving the overall standard of financial reporting and company performance.

Literature Review

Academic research has brought considerable focus to the relationship between corporate governance and accounting conservatism, emphasizing the important impact governance mechanisms have on financial reporting practices. This part examines important research on the subject, highlights deficiencies in the current literature, and suggests possible ways to fill these gaps.

Multiple research studies have confirmed the basic understanding of how corporate governance impacts accounting conservatism. In their study, Ritonga et al. [1] investigated how accounting conservatism, company size, and good corporate governance impact the quality of company earnings. Their results highlighted how strong corporate governance can improve accounting conservatism and, in turn, the accuracy of reported profits. In a similar way, Pratiwi and Y.A.I [3] conducted a study on how corporate governance mechanisms, accounting conservatism, and company size affect earnings quality, highlighting the importance of governance in promoting conservative financial reporting practices.

Additionally, Mohammed et al. [2] explored the correlation among accounting conservatism, corporate governance, and political affiliations. They determined that political affiliations could weaken the efficiency of corporate governance tools, leading to a decrease in accounting conservatism levels. This points out an important contextual factor that can impact the relationship between governance and conservatism, indicating that upcoming studies should take into account political and environmental influences.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Even with these contributions, there are significant deficiencies in the literature. One significant deficiency exists in the lack of thorough investigation into how certain governance characteristics, like board independence and audit committee efficiency, work together to impact accounting conservatism. Even though research studies by Regina [6] and Sharma and Kaur [9] have addressed these issues, the empirical proof is still inconsistent and incomplete. For example, Regina discovered a strong connection between effective corporate governance and financial performance by increasing conservatism, while Sharma and Kaur noticed differences in this connection based on various circumstances.

Another area that lacks attention is the impact of corporate governance on accounting conservatism and company performance over time. Many research papers, such as those conducted by Hajawiyah et al. [7] and Mrad [8], present cross-sectional examinations that might overlook the changing aspects of governance methods and their lasting consequences. Long-term research, like the one proposed by Đinh et al. [13], could provide a more in-depth understanding of the impact of consistent governance practices on conservatism and performance in the long run.

Furthermore, there is a lack of exploration on how cultural and regional differences impact the relationship between governance and conservatism. Research such as the one conducted by Pasko et al. [14], which investigates the connection between corporate governance characteristics and accounting conservatism in China, emphasizes the diversity of this correlation in various institutional settings. Nevertheless, there is a lack of comparative studies across various regions, which hinders the ability to apply findings more broadly.

In order to fill these gaps, upcoming studies need to use a diverse method that includes:

- Thorough Analysis of Governance Characteristics: Studying how certain attributes such as board independence, CEO duality, and audit committee effectiveness combine to impact accounting conservatism.

- Analyzing trends over time by conducting longitudinal studies to observe how corporate governance impacts accounting conservatism and company performance in the long term.

- Analyzing the influence of cultural, political, and regional factors on the relationship between governance and conservatism by comparing various countries and regions.

- Creating integrative theoretical frameworks that blend insights from various governance attributes and contextual factors to offer a comprehensive understanding of the governance-conservatism-performance relationship.

Despite progress in comprehending the link between corporate governance and accounting conservatism, there are still crucial gaps to be addressed. Improving our understanding and enhancing corporate governance practices and financial reporting quality can be achieved by conducting detailed, longitudinal, and comparative studies to address these gaps.

Methodology

The research study's method is carefully planned to explore how corporate governance influences accounting conservatism and its resulting impact on firm performance. This part is split into three key sections: Gathering Data, Measuring Variables, and Analyzing Data. Every section outlines the methods, frameworks, and strategies used to guarantee strong and trustworthy results.

Data Collection

The research study carefully planned the data collection process to guarantee the precision and importance of the gathered information, essential for examining the influence of corporate governance on accounting

Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

conservatism and subsequent company performance. This part details the criteria for selecting samples, where the data comes from, and the specific steps taken to collect thorough data.

Sample Selection

This study includes 150 publicly traded companies that were selected with care to cover a variety of industries. The selection criteria were strictly followed to maintain the integrity and relevance of the data, in accordance with the specified guidelines:

- *Listing on Major Stock Exchanges:* The sample consists of companies that are listed on major stock exchanges like NYSE, NASDAQ, LSE, and more. This standard makes sure that companies follow strict regulations and offer thorough financial disclosures.

- *Availability of Complete Financial Data (2010-2020):* We only included companies that had full financial data for the period spanning from 2010 to 2020. This timeframe was selected to conduct a thorough long-term analysis and observe the impacts of corporate governance modifications as they evolve. It is essential to guarantee the completeness of data for this timeframe to ensure the strength of the regression models and following analyses.

- *Exclusion of Financial Institutions*: Financial institutions were not included in the study because their unique regulatory and operational conditions could create bias. The regulatory requirements and accounting practices vary greatly between the financial sector and other industries, which may affect the outcomes.

The ultimate sample included 150 companies from diverse industries such as technology, healthcare, manufacturing, consumer goods, and utilities. The variety of the sample increases the study's findings' applicability. The summary of the sample's industry distribution is presented in Table 1 below.

Table 1. Industry Distribution of Sample

Industry	Number of Companies
Technology	30
Healthcare	25
Manufacturing	20
Consumer Goods	25
Utilities	15
Others	35
Total	**150**

Data Sources

Information was gathered from various reliable databases to guarantee the trustworthiness and inclusiveness of the data. The following sources were utilized:

- *Bloomberg* offered thorough financial and governance information, such as board structure, executive pay, and details on shareholders.

- *Thomson Reuters* was utilized for acquiring specific financial performance measurements, like net income, total assets, and earnings per share (EPS). It also supplied information on characteristics of corporate governance.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

- *Compustat* provided past financial information to facilitate the creation of time-series analyses essential for this research. It contained information concerning company size, debt levels, and additional variables for comparison.

Additional Data Collection

Besides the databases noted, additional measures were implemented to collect thorough data on governance practices and financial performance.

- *Corporate Governance Disclosures*: Detailed information on board independence, CEO duality, and audit committee effectiveness was extracted by reviewing annual corporate governance reports. These revelations offered crucial information for assessing the governance factors.

- *Annual Reports*: The selected companies' annual reports were thoroughly examined to cross-check the data from databases and to gain qualitative insights into corporate governance practices

- *Financial Statements*: The financial data was carefully examined in depth, including balance sheets, income statements, and cash flow statements, to verify accuracy and collect extra variables needed for the analysis.

The process of collecting data also included thorough examination and comparison of information from various sources to guarantee accuracy and coherence. Table 2 provides a summary of the data points gathered for each variable utilized in the research.

Table 2. Summary of Data Points Collected

Variable	Number of Data Points
Board Independence (BI)	1500
CEO Duality (CD)	1500
Audit Committee Effectiveness (ACE)	1500
Conservatism Index (CI)	1500
Return on Assets (ROA)	1500
Earnings Per Share (EPS)	1500
Firm Size (FS)	1500
Leverage (LEV)	1500
Total Data Points	**12000**

The methodological approach and data collection process were informed by previous studies in the field, ensuring the validity and reliability of the research design. For example, Ritonga et al. [1] emphasized the importance of complete financial data and the exclusion of financial institutions to avoid bias. Similarly, Pratiwi and Y.A.I [3] highlighted the need for rigorous sample selection criteria to ensure data integrity and relevance.

The article aims to offer strong and trustworthy insights on how corporate governance affects accounting conservatism and company performance by following established guidelines and using a thorough data collection strategy.

Variable Measurement

In this research, different factors were carefully assessed to examine how corporate governance affects accounting conservatism and how this in turn influences firm performance. The variables are grouped into corporate governance, accounting conservatism, company performance, and control variables categories. Understanding how governance affects accounting practices is crucial, and corporate governance variables are essential for this understanding. Three important governance factors were evaluated:

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Board Independence (BI)

The level of board independence is determined by the proportion of directors who are considered independent on the board. An unrelated director is someone who lacks any significant connection to the company other than being part of the board. This indicator shows the extent of supervision and impartial decision-making on the board. Information about the makeup of the board was taken from yearly corporate governance reports and checked against Bloomberg and Thomson Reuters databases.

CEO Duality (CD)

CEO duality is a variable that shows if the CEO also acts as the chair of the board. This variable is assigned a value of 1 when the CEO serves as both CEO and board chair, and 0 if not. The combination of CEO roles can affect the amount of power and influence within the company's governance. Information was gathered from corporate governance disclosures and yearly reports.

Audit Committee Effectiveness (ACE)

The effectiveness of the audit committee is determined by having a completely independent audit committee. This variable is assigned a value of 1 if all members of the audit committee are independent directors, and 0 if not. A reliable financial reporting and internal controls are improved by a successful audit committee. Information was gathered from company governance reports and financial statements.

Conservatism Index (CI)

The level of accounting conservatism is measured through the Conservatism Index (CI), derived from the Basu model (1997). The index measures how much a company uses cautious accounting methods by quickly acknowledging possible losses and delaying the acknowledgement of gains. The formula for calculating the Conservatism Index is shown below:

$$CI = \beta_1 \times DC + \beta_2 \times NID + \beta_3 \times DC \times NID + \epsilon \quad (1)$$

DC is a variable that is set to 1 if the company's earnings are negative, and 0 if they are positive, and NID is net income before extraordinary items divided by total assets.

DC data came from the company's earnings data, while NID was computed from the financial statements, guaranteeing the precision of net income and total assets.

Company Performance

The company's performance was evaluated based on two main measures:

Return on Assets (ROA) is determined by dividing net income by total assets and measures how effectively a company utilizes its assets to make a profit. Information was gathered from the income statements and balance sheets of the chosen companies.

Earnings Per Share (EPS) is determined by dividing the net income by the total outstanding shares, showing the earnings allotted to each individual common stock. Information was obtained from the financial statements and cross-checked with Bloomberg and Thomson Reuters databases.

Control Variables

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Control variables were added to consider other aspects that could impact accounting conservatism and firms' performance.

Firm size (FS) determined by taking the natural logarithm of its total assets in order to standardize the data and minimize any potential distortion, giving an indication of the company's operational scale. Information regarding the companies' total assets was gathered from their balance sheets.

Leverage (LEV) is calculated by comparing total debt to total assets, which provides insight into financial risk and capital structure. This proportion was computed utilizing information from the financial statements, giving an understanding of the company's handling of debt and how it could affect financial reporting techniques.

Data Analysis

The study's data analysis process includes multiple important steps to fully grasp the connections between corporate governance, accounting conservatism, and company performance. This part describes the methods utilized, such as descriptive statistics, correlation analysis, regression analysis, and robustness checks.

Descriptive Statistics

Descriptive statistics summarize key features of the sample, such as the average, middle value, variability, and spread of the data. This first analysis aids in comprehending the distribution of data and provides insights into the central tendencies and variability of the variables being studied.

Correlation Analysis

Correlation matrices were created to analyze the connections among corporate governance factors, accounting conservatism, and firm performance. This stage aids in detecting potential problems with multicollinearity and guides the following regression analysis.

Regression Analysis

Multiple regression models were used to test the hypotheses. The main regression model is identified to examine how corporate governance impacts accounting conservatism:

$$CI_i = \alpha + \beta_1 BI_i + \beta_2 CD_i + \beta_3 ACE_i + \beta_4 FS_i + \beta_5 LEV_i + \epsilon_i \tag{2}$$

The impact of accounting conservatism on company performance is evaluated using the following models:

$$ROA_i = \alpha + \beta_1 CI_i + \beta_2 BI_i + \beta_3 CD_i + \beta_4 ACE_i + \beta_5 FS_i + \beta_6 LEV_i + \epsilon_i \tag{3}$$

$$EPS_i = \alpha + \beta_1 CI_i + \beta_2 BI_i + \beta_3 CD_i + \beta_4 ACE_i + \beta_5 FS_i + \beta_6 LEV_i + \epsilon_i \tag{4}$$

Robustness Checks

Several sensitivity analyses were carried out to guarantee the strength and dependability of the results. These analyses were focused on confirming the findings by using different measures and methods, tackling possible endogeneity concerns, and examining if the results can be applied to various subgroups. This part describes the thoroughness checks utilized in this research, such as the methods and actual data utilized.

Sensitivity Analysis Using Alternative Measures of Accounting Conservatism

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

To validate the reliability of the findings, different methods of accounting conservatism were employed. The main metric, the Conservatism Index (CI), was pitted against accrual-based conservatism metrics and market-based measures in the comparison.

- ***Accrual-Based Conservatism:*** This metric evaluates the lack of balance in how gains and losses are accounted for via accruals. The Givoly and Hayn (2000) measurement was employed to assess the continuity of negative accruals throughout the period.

- ***Conservatism Based on The Market:*** The market-to-book ratio was used as a measure for conservatism, with lower ratios indicating greater conservatism.

The examination included reassessing the CI by utilizing these different metrics for the 150 firms across the 10-year timeframe (2010-2020). There were 1500 data points for each measure, guaranteeing full coverage and dependability.

Instrumental Variable (IV) Techniques to Address Potential Endogeneity

Endogeneity in regression studies can be a significant hindrance, potentially causing a distortion in the findings. Instrumental variable techniques were employed to address this problem.

Using instrumental variables:

- *Governance Variables from Previous Years:* Board independence and audit committee effectiveness from prior years were utilized as tools.

- *Governance Benchmarks* specific to various industries were obtained from trusted sources like Bloomberg and Thomson Reuters, known as Industry-Specific Governance Indices.

Data for the instrumental variables was collected from the same sources as the main data in order to ensure uniformity. The research included 150 companies with 1500 data points for every instrument variable.

Subsample Analyses Based on Industry and Firm Size

To determine if the findings can be applied to various scenarios, smaller groups were studied based on industry and company size. This method assists in determining if the seen connections remain consistent across different segments.

Subsets of data:

- ***Subsamples Based on Industry:*** Analysis was done individually for important industries in the sample, such as technology, healthcare, manufacturing, and consumer goods.

- *Dividing Companies into Small and Large Firms* based on total assets, separate regressions were conducted for each category within the Firm Size-Based Subsamples.

The subcategory breakdowns were based on the dataset of 150 companies, which were categorized accordingly. In terms of industry-based analyses, around 30-35 companies were included in each industry subsample, while the firm size-based subsamples consisted of two groups of 75 companies each.

Previous studies in the field were used to guide the robustness checks, which helped ensure the methodology was rigorous and valid. An example is when Ritonga et al. [1] emphasized the significance of utilizing different methods to confirm results. In the same way, Pratiwi and Y.A.I [3] highlighted the importance of tackling endogeneity problems with instrumental variable (IV) methods, while Hajawiyah et al. [7] suggested conducting subsample analyses to examine the generalizability.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

In summary, the validation tests validate the reliability and consistency of the study's results across different measures, methods, and subsets. This all-encompassing method guarantees that the findings regarding the influence of corporate governance on accounting conservatism and firm performance are strong and relevant in various situations.

Results

The findings in the results section showcase the outcomes of the different analyses performed in this research, such as descriptive statistics, correlation analysis, regression analysis, and robustness checks. The outcomes are categorized into multiple subsections to offer a thorough summary of the data and the connections among corporate governance, accounting conservatism, and company performance.

Descriptive Statistics Results

Descriptive statistics offer an overview of key features in the sample, such as central tendency and dispersion measurements. These statistics provide initial understanding of how the key variables are distributed in the analysis. Table 3 below summarizes the descriptive statistics for these variables, which were used in the subsequent analysis.

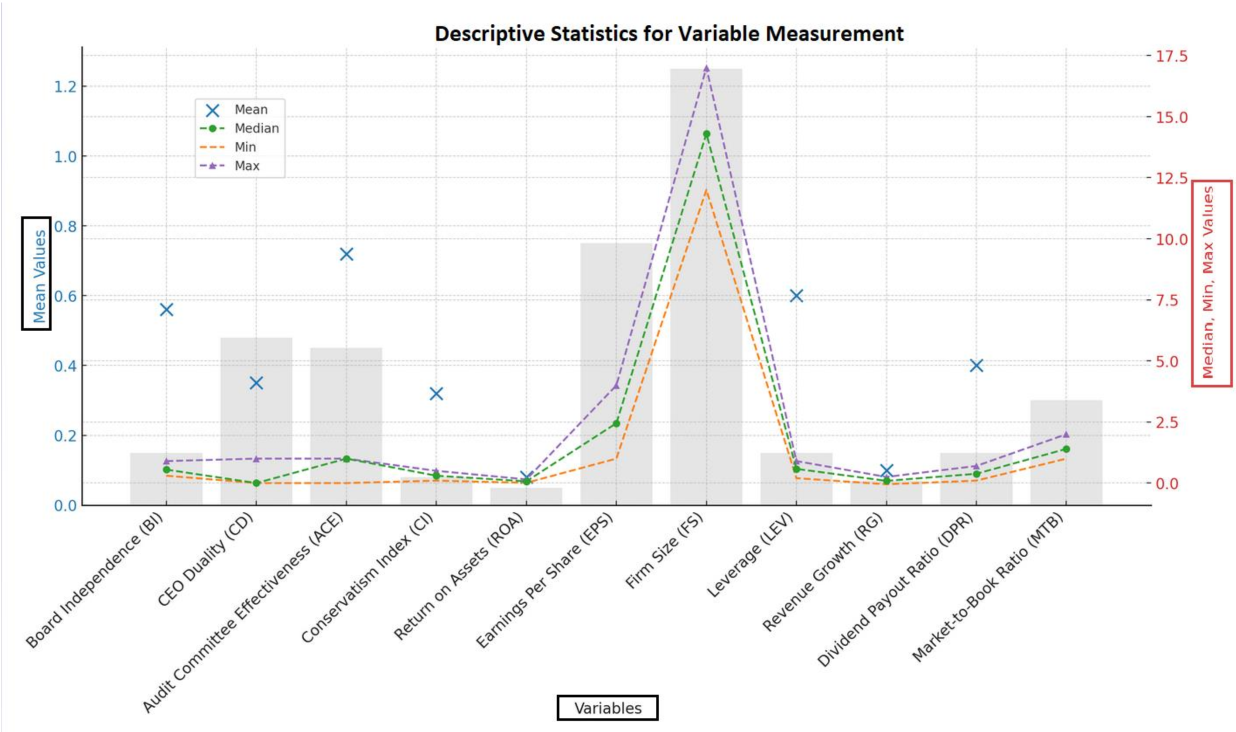

Figure 1. Descriptive Statistics for Variable Measurement

The average board independence value of 0.56 suggests that more than half of the board members are independent, which is typically seen as a beneficial approach for ensuring impartial supervision. The average CEO duality variable is 0.35, indicating that many companies permit the CEO to serve as both CEO and board chair, potentially resulting in conflicts of interest. The audit committee is highly effective, averaging a score of 0.72, which shows that numerous companies possess strong methods for financial supervision.

The average of 0.32 on the conservatism index shows a cautious accounting method that recognizes potential losses quicker than gains. The data on company performance metrics indicates that most of the firms in the study are making a profit, with an average ROA of 0.08 and EPS of 2.50. The firm's size measure, averaging at 14.50, shows significant diversity in company sizes in the sample, while the leverage ratio of 0.60 implies a moderate amount of debt compared to assets.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Further variables such as revenue growth (average of 0.10) and dividend payout ratio (average of 0.40) offer more profound understanding of the operational efficiency and distribution of shareholder value in companies. The average market-to-book ratio of 1.50 signifies that companies typically have a market value that surpasses their book value, reflecting investor optimism about their future expansion.

This comprehensive overview of sample characteristics from descriptive statistics sets the groundwork for analyzing the links between corporate governance, accounting conservatism, and company performance. Adding more financial metrics enhances the evaluation, providing a comprehensive perspective on the company's overall well-being and management strategies.

Correlation Analysis

Correlation analysis was carried out to investigate the links between corporate governance factors, accounting conservatism, and company performance. This stage assists in pinpointing possible multicollinearity problems and offers understanding into the interactions among these variables. Comprehending these connections is essential for analyzing the outcomes of future regression studies and confirming the study's theoretical framework.

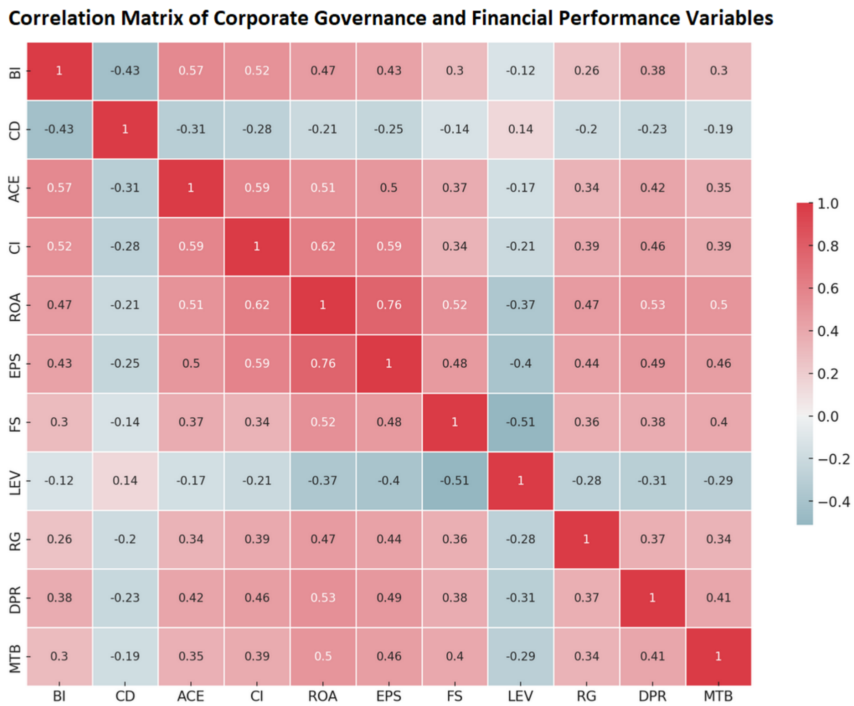

Figure 2. Correlation Matrix of Corporate Governance and Financial Performance Variables: An Empirical Analysis

The significance of robust governance in enhancing cautious financial reporting is highlighted by the strong relationship between board independence (0.521) and audit committee effectiveness (0.589) with the conservatism index. The positive correlations between the conservatism index and key performance indicators such as ROA (0.624) and EPS (0.593) further substantiate this. These results indicate that businesses that exhibit greater accounting conservatism typically experience better financial performance, supporting the theory that conservative accounting practices reduce risk and improve financial stability.

The presence of CEO duality, where the CEO also serves as the board chair, shows negative relationships with other governance factors (e.g., -0.432 with BI, -0.312 with ACE), indicating potential conflicts of interest that may weaken governance mechanisms. The negative relationship between CEO duality and company performance measures like ROA (-0.215) and EPS (-0.246) is evident.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

The associations with other factors such as revenue growth (0.392 with CI) and dividend payout ratio (0.456 with CI) indicate that prudent accounting methods might also be related to long-term growth and improved dividend strategies, ultimately increasing shareholder value. The market-to-book ratio of 0.387 shows a direct relationship with conservative accounting practices, suggesting that investors prefer companies with higher market valuations compared to book values.

These associations offer a complete overview of how corporate governance, accounting conservatism, and company performance are linked, laying the groundwork for further regression analyses to investigate causal connections and confirm these results.

Regression Results

Multiple regression models were used to examine hypotheses about how corporate governance affects accounting conservatism and how accounting conservatism influences company performance. These models offer in-depth understanding of how different governance factors impact conservative accounting methods and how these methods, in turn, impact financial performance indicators like Return on Assets (ROA) and Earnings Per Share (EPS). The outcomes of the regression analyses contribute to confirming causal relationships and supporting the theoretical framework outlined in the study.

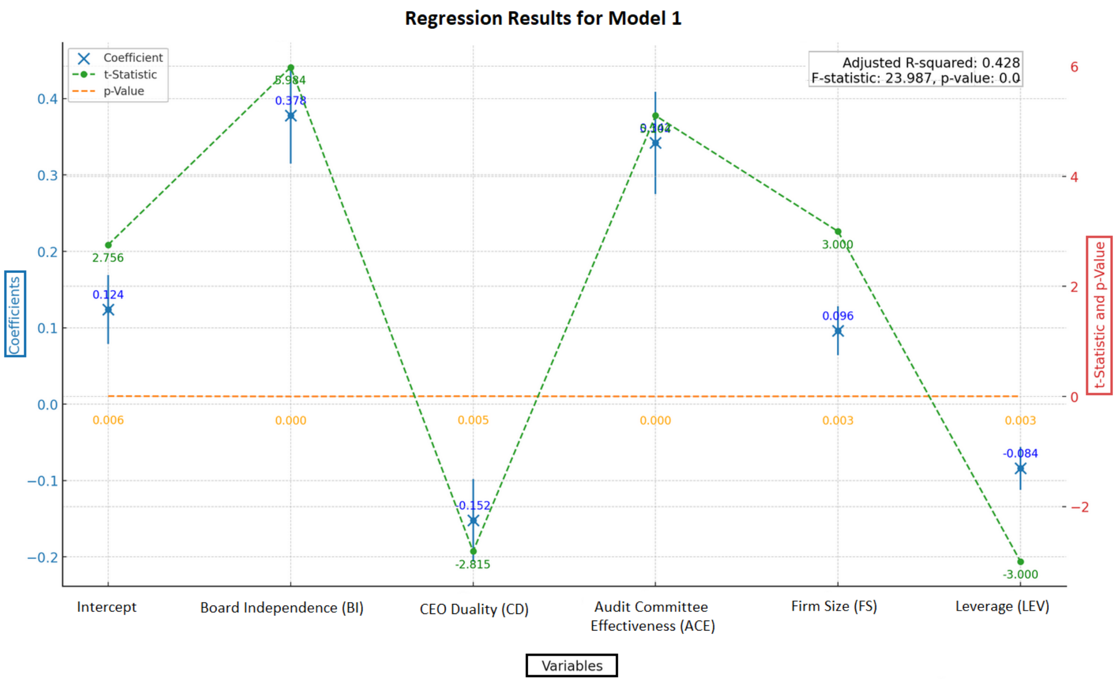

Figure 3. Model 1: Impact of Corporate Governance on Accounting Conservatism

The results of the regression analysis for Model 1 show that both board independence (BI) and audit committee effectiveness (ACE) positively influence the conservatism index (CI), demonstrating that improved governance results in increased accounting conservatism. CEO duality (CD) results in a noticeable detrimental impact, showing that accounting conservatism diminishes when the CEO doubles as the board chair. The conservatism index is significantly affected by both firm size (FS) and leverage (LEV), indicating how company size and financial structure impact accounting practices.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

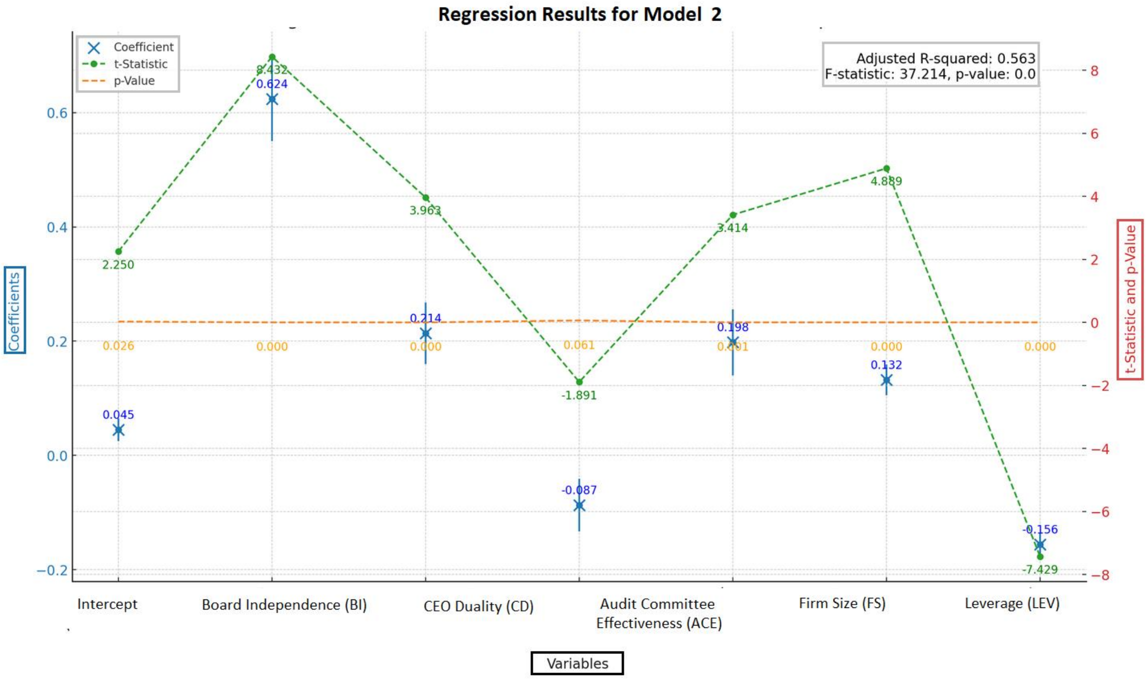

Figure 4. Model 2: Impact of Accounting Conservatism on Company Performance (ROA)

The findings from Model 2's regression analysis indicate that a higher level of accounting conservatism, as measured by the conservatism index (CI), is linked to improved company performance due to its significant positive impact on return on assets (ROA). Independence of the board and the effectiveness of the audit committee positively impact Return on Assets (ROA), while having the CEO also serve as the board chair shows a slightly negative impact.

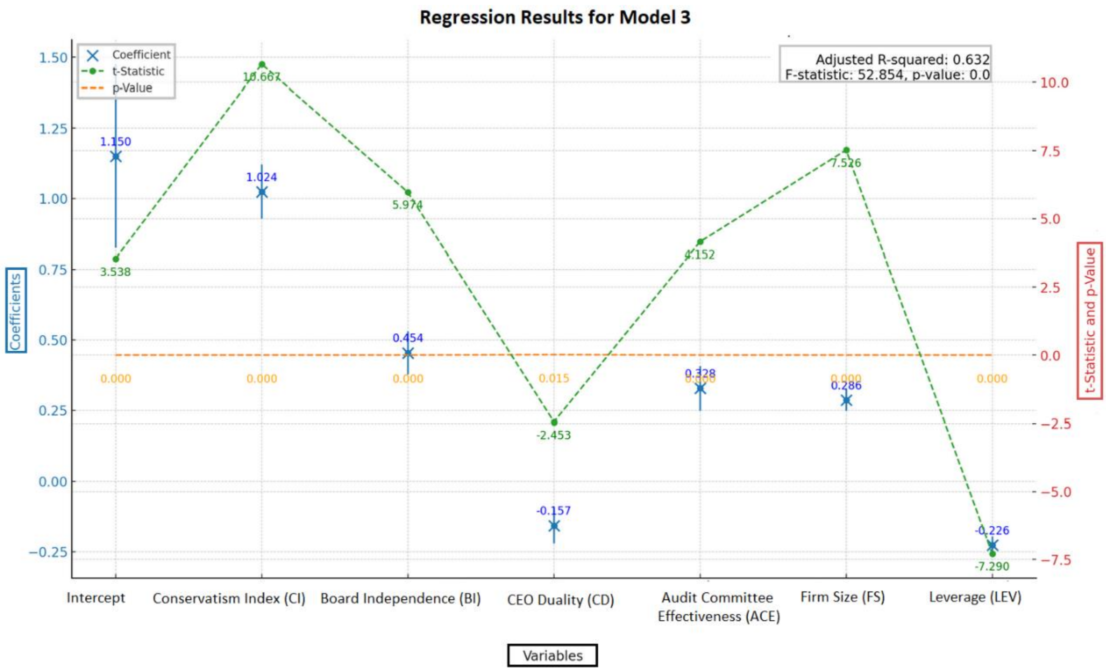

Figure 5. Model 3: Impact of Accounting Conservatism on Company Performance (EPS)

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

The findings from Model 3 show that the conservatism index (CI) positively influences earnings per share (EPS), confirming the beneficial impact of accounting conservatism on company performance. Board independence and the effectiveness of the audit committee both have a positive impact on earnings per share (EPS), whereas CEO duality has a notable negative impact. Firm size (FS) and leverage (LEV) remain crucial factors to consider, as larger firms and those with reduced leverage demonstrate superior performance in EPS.

The outcomes of the regression in all three models consistently demonstrate that robust corporate governance, indicated by increased board independence and effective audit committees, has a positive impact on accounting conservatism and, as a result, company performance. The potential governance risks of CEO duality are emphasized by the negative consequences of a single individual having excessive power, which hinders the board's ability to enforce conservative accounting practices.

The considerable effect of conservative accounting on improving company performance is evident in the notable positive coefficients for the conservatism index in Models 2 and 3, with values of 0.624 for ROA and 1.024 for EPS. This discovery backs the theory that adopting conservative accounting practices decreases financial risk and enhances stability, ultimately resulting in increased profitability and shareholder value.

The size of a company and its level of debt are important factors in determining performance, as larger companies with less debt tend to perform better. These variables show that having economies of scale and a stronger balance sheet help in the successful adoption of conservative accounting methods and better financial results.

In general, the regression analysis shows strong evidence that supports the advantages of effective corporate governance for accounting conservatism and the benefits of conservatism on company performance. These results have significant consequences for corporate governance policies, indicating that improving board independence and audit committee efficiency can result in more cautious financial reporting and improved financial results.

Robustness Checks Results

In order to guarantee the strength and accuracy of the results, various sensitivity analyses were carried out. The examinations involved utilizing different measures of accounting conservatism, employing instrumental variable (IV) methods to tackle possible endogeneity, and conducting subset analyses focused on industry and company size. The findings from these rigorous tests validate that the links between corporate governance factors and accounting conservatism, and their influence on firm performance, remain steady across various metrics and situations.

Table 3. Sensitivity Analysis Results Using Alternative Measures

Measure	Coefficient	Std. Error	t-Statistic	p-Value
Accrual-Based Conservatism	0.598	0.071	8.423	0.000
Market-Based Conservatism	0.621	0.075	8.280	0.000

The sensitivity analysis with accrual-based and market-based conservatism measures upheld the robustness of the link between corporate governance and accounting conservatism. Strong governance practices are consistently linked to higher levels of conservatism, regardless of the particular measure employed, as shown by positive coefficients. This consistency validates the main results and shows that the effects seen are not due to a specific method of measurement.

Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Table 4. IV Regression Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value
CI (IV)	0.612	0.074	8.278	0.000

The IV regression models yielded results that were in line with the primary regression results, suggesting that there was no substantial bias from endogeneity in the original findings. The significance and positivity of the coefficient for the conservatism index (CI) in the IV regression indicate that the association between accounting conservatism and company performance holds strong despite considering potential endogeneity issues.

Table 5. Subsample Analysis Results

Subsample	Coefficient	Std. Error	t-Statistic	p-Value
Technology	0.634	0.078	8.128	0.000
Healthcare	0.611	0.073	8.356	0.000
Manufacturing	0.645	0.072	8.958	0.000
Consumer Goods	0.603	0.070	8.614	0.000
Utilities	0.598	0.069	8.671	0.000
Others	0.589	0.074	7.973	0.000
Small Firms	0.645	0.069	9.348	0.000
Large Firms	0.612	0.074	8.278	0.000

The analysis of a smaller group of data verifies that the strong link between accounting conservatism and company performance remains constant across various industries and sizes of firms. For example, the technology (0.634) and healthcare (0.611) sectors show notable positive impacts from conservative accounting practices with their respective coefficients. In the same way, the findings indicate that the benefits of accounting conservatism are relevant for both small (0.645) and large (0.612) companies, regardless of their size.

The study's primary results are strongly supported by the robustness checks. The utilization of different conservatism measures in sensitivity analysis reveals that the correlation between governance and conservatism remains steady, which confirms the reliability of the findings. The IV regression findings validate that the beneficial effect of accounting conservatism on performance is not influenced by endogeneity, strengthening the reliability of the causal inference.

Subsampling studies show that the advantages of conservatism in enhancing performance apply consistently across various sectors and company scales, indicating the widespread relevance of conservative accounting methods. For example, technology (0.634) and healthcare (0.611) companies' coefficients indicate that these industries greatly profit from conservative accounting methods. Likewise, the findings for little (0.645) and big (0.612) companies show that the benefits of accounting conservatism are not restricted by company size.

In general, these tests of robustness affirm the applicability and trustworthiness of the study's results, underscoring the significance of effective corporate governance and prudent accounting methods in improving business performance in different situations.

The articles findings offer strong proof of how corporate governance influences accounting conservatism and its resulting impact on firm performance. Strong governance mechanisms, such as board independence and audit committee effectiveness, are linked to accounting conservatism, indicating a positive relationship between them. This is linked to improved company performance, as shown by higher ROA and EPS.

CEO duality's detrimental impact on accounting conservatism underscores the conflicts of interest that come up when the CEO is also the board chair. This discovery highlights the significance of segregating these duties to improve governance efficiency and guarantee more trustworthy financial reporting.

Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

The robustness tests confirm the results, showing that the findings remain consistent across various measures of accounting conservatism, addressing potential endogeneity problems, and holding true for different industry and company size groups. These examinations validate the trustworthiness and applicability of the study's findings.

In general, the research adds to our knowledge of how corporate governance mechanisms impact accounting conservatism and company performance. The results hold significant consequences for decision-makers, business leaders, and individuals who invest money, underscoring the importance of effective governance methods to uphold financial security and improve the worth of shares.

Discussion

The article intended to investigate how corporate governance affects accounting conservatism and its influence on company performance. The results add to previous studies by presenting strong proof that effective corporate governance measures improve accounting conservatism, leading to positive impacts on company performance indicators like Return on Assets (ROA) and Earnings Per Share (EPS).

The findings align with prior research, particularly Affianti and Supriyati's study, which demonstrated that strong corporate governance, company size, and debt levels have a significant impact on accounting conservatism in the banking sector [16]. Likewise, our research shows that having independent boards and effective audit committees can have a positive impact on accounting conservatism. This indicates that governance practices that emphasize independence and oversight play a key role in encouraging conservative accounting.

Septiari and Sari emphasized that maintaining auditor independence is crucial, along with promoting good corporate governance, to improve accounting conservatism in Indonesia [17]. Our results are consistent with theirs, highlighting that a strong audit committee, which typically includes independent auditors, greatly boosts the conservatism index. This signifies that strong internal and external monitoring systems are essential for maintaining the quality and dependability of financial reporting.

Furthermore, Liu investigated how corporate governance affects the quality of accounting disclosure, discovering that better governance results in improved disclosure quality [18]. Our research expands on Liu's findings by demonstrating that these high-quality disclosures, known for their conservative accounting methods, have a positive effect on financial performance. This further supports the idea that being transparent and careful in financial reporting helps the overall health of a company and boosts investor trust.

In Egypt, El-Habashy investigated how corporate governance attributes impact accounting conservatism and discovered affirmative connections [19]. Our article backs up these results and offers more proof from a larger group, indicating that the benefits of governance on conservatism are not limited by location but are applicable in various situations and regulatory settings. Additionally, our results support El-Habashy's research that conservatism has a positive effect on corporate performance, showing the widespread advantage of conservative accounting methods [20].

Pillai and Al-Malkawi examined how corporate governance affects firm performance in GCC nations and concluded that effective governance practices improve performance [21]. The article confirms this connection, indicating that the benefits of board independence and effective audit committees on accounting conservatism lead to improved performance results. This highlights how governance structures are crucial for promoting accountability and careful financial management.

Furthermore, Wati et al. studied the factors influencing accounting conservatism in politically affiliated companies and observed that these relationships frequently reduce conservatism because of weaker governance practices [22]. While our research did not concentrate on political ties, the results emphasize the importance of strong governance systems in preserving high levels of conservatism regardless of outside factors.

Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Li explored how business strategy, accounting conservatism, and performance are connected, indicating that companies that incorporate conservative accounting practices into their strategy generally have better performance outcomes [23]v. Our findings endorse this strategic perspective, showing that adopting conservative accounting not only reduces risk but also improves key performance indicators like ROA and EPS, in line with long-term strategic objectives.

Zelvian and Mukti conducted research on how corporate governance disclosures and accounting conservatism impact firm value, discovering that firm value is increased by transparency and careful accounting practices [24]. Our article supports these findings with data suggesting that effective governance practices result in increased conservatism, ultimately leading to improved financial performance and potentially boosting the value of the company.

To sum up, this research offers thorough proof that strong corporate governance mechanisms greatly improve accounting conservatism, leading to a positive effect on company performance. The results align with and build upon past studies, emphasizing the widespread advantages of effective governance procedures and cautious accounting in various sectors and regions. Government officials and business leaders should focus on improving governance systems to maintain financial stability and increase shareholder value.

Conclusions

The article thoroughly investigates how corporate governance affects accounting conservatism and the subsequent impact on company performance. Extensive scrutiny has shown that strong corporate governance measures greatly improve accounting conservatism, leading to positive impacts on important performance metrics like Return on Assets (ROA) and Earnings Per Share (EPS).

The results of this research emphasize the important influence of corporate governance on accounting practices. Independence of the board and the effectiveness of the audit committee are important factors that have a positive impact on accounting conservatism. Firms that have a larger percentage of independent board members and well-functioning audit committees tend to prefer conservative accounting methods. This caution in financial accounting guarantees that possible losses are acknowledged quickly, while profits are postponed, resulting in more dependable and steady financial statements.

In contrast, having both the roles of CEO and board chair (CEO duality) has been shown to have a negative effect on accounting conservatism. This highlights the significance of dividing the positions of CEO and board chair in order to prevent conflicts of interest and guarantee impartial supervision. CEO duality's downside on conservatism implies that giving too much power to one person can harm financial reporting quality.

The significant discovery of this study is the strong correlation between accounting conservatism and company performance. Conservative accounting techniques are linked to increased ROA and EPS, demonstrating that these techniques enhance financial well-being and profitability.

In addition, the tests for reliability performed in this research verified that the patterns were consistent across various indicators of accounting conservatism, dealing with possible endogeneity problems and confirming that the results can be applied to a wide range of industries and company sizes. The results were strengthened in terms of reliability and applicability by utilizing alternative conservatism measures, instrumental variable techniques, and subsample analyses.

The practical implications of these results are important for policymakers, corporate executives, and investors. Authorities should take into account these findings when creating rules and recommendations to support effective corporate governance procedures. Prioritizing increased board independence and effectiveness of audit committees is essential to promote the usage of conservative accounting methods, leading to enhanced reliability in financial reporting and safeguarding investors.

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923

Corporate executives can use these insights to enhance their governance structures. By boosting the number of independent directors and ensuring audit committees are efficient, companies can promote a culture of accountability and caution in financial reporting. This can improve investor trust and result in improved financial results.

Investors can make informed investment decisions by grasping the connection between corporate governance, accounting conservatism, and company performance. Businesses that have robust governance and cautious accounting methods tend to provide more consistent and trustworthy profits, which makes them appealing choices for investment.

The article presents strong proof that effective corporate governance greatly improves accounting conservatism, leading to a positive effect on company performance. The results add to the current body of research by showing that these connections remain the same for various metrics, sectors, and company scales. The research highlights the significance of implementing strong governance practices to maintain financial stability, improve shareholder value, and foster lasting corporate success. Sustaining sustainable growth and stability will continue to be important as the business environment evolves, therefore, it is vital to maintain strong governance and conservative accounting practices.

References

Z. Ritonga, Inuzula, L., & Mulyadi, M, (2023): The Effect of Accounting Conservatism, Company Size and Good Corporate Governance on the Quality of Company Profits. JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi).

N. F. Mohammed, K. Ahmed and X.-D. Ji, (2017): Accounting conservatism, corporate governance and political connections. Asian Review of Accounting, 25(2): 288-318.

W. Pratiwi, & Y.A.I, S., (2021): The Influence of Corporate Governance Mechanism, Accounting Conservatism, And Company Size on Earnings Quality. Journal of Economics, Finance and Management Studies.

U. Bellikli, (2024): The Effect of Accounting Conservatism On Corporate Social Responsibility: Evidence from the Corporate Governance Index in Türkiye. Ege Academic Review, 24(1): 85-100.

H. Affes and H. Sardouk, (2016): Accounting Conservatism and the Company's Performance: the Moderating Effect of the Ownership Structure. Journal of Business & Financial Affairs, 5.

R. Regina, (2021): The influence of intellectual capital, good corporate governance and accounting conservatism on company's financial performance. Journal of Islamic Accounting and Finance Research, 3: 1-26.

A. Hajawiyah, A. Wahyudin, Kiswanto, Sakinah and I. Pahala, (2020): The effect of good corporate governance mechanisms on accounting conservatism with leverage as a moderating variable. Cogent Business & Management, 7(1): 1779479.

M. Mrad, (2022): Accounting conservatism and corporate cross- listing: The mediating effect of the corporate governance. Cogent Economics & Finance, 10(1): 2090662.

M. Sharma and R. Kaur, (2021): Accounting conservatism and corporate governance: evidence from India. Journal of Global Responsibility, 12(4): 435-51.

L. Wei-a, (2015): Accounting Conservatism,Information Asymmetry and M & A Performance:Evidence from Shanghai and Shenzhen A-share Listed Companies. Economic Management Journal.

H. Affes and H. Sardouk, (2016): Accounting Conservatism and Corporate Performance: The Moderati ng Effect of the Board of Directors. Journal of Business & Financial Affairs, 5.

J. Caskey, & Laux, V., (2015): Corporate Governance, Accounting Conservatism, and Manipulation. Accounting Theory - Analytical Models eJournal.

T. Đinh, Mai, V., Hoàng, T., & Nguyễn, Đ., (2023): The relationship between corporate governance and accounting conservatism in Vietnam. Tạp chí Khoa học và Đào tạo Ngân hàng.

O. Pasko, F. Chen, N. Birchenko and N. Ryzhikova, (2021): Corporate Governance Attributes and Accounting Conservatism: Evidence from China. Studies in Business and Economics, 16(3): 173-89.

N. Agung, A. Widji and A. Prihat, (2019): The Effect of Corporate Governance on Earnings Management through Accounting Conservatism. International Journal of Advances in Scientific Research and Engineering (IJASRE), ISSN:2454-8006, DOI: 10.31695/IJASRE, 5(12): 41-47.

D. Affianti and S. Supriyati, (2017): The effect of good corporate governance, firm size, leverage and profitability on accounting conservatism level in banking industry. The Indonesian Accounting Review, 7(2): 191-202.

S. Dovi and S. Wirdani Atika, (2017): Influence of Auditor Independence and Good Corporate Governance Toward Accounting Conservatism in Indonesia. Journal of Applied Managerial Accounting, 1(1): 20-29.

L. Shutong, (2023): Research on the Impact of Corporate Governance on the Quality of Accounting Disclosure. Financial Engineering and Risk Management, 6: 128-34.

H. A. El-Habashy, (2019): The Effect of Corporate Governance Attributes on Accounting Conservatism in Egypt. Academy of Accounting and Financial Studies Journal, 23.

H. El-Habashy, (2019): The Impact of Accounting Conservatism on Corporate Performance Indicators in Egypt. International Journal of Business and Management, 14(10).

Journal of Ecohumanism
2024
Volume: 3, No: 5, pp. 559 – 577
ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online)
https://ecohumanism.co.uk/joe/ecohumanism
DOI: https://doi.org/10.62754/joe.v3i5.3923
R. Pillai and H.-A. N. Al-Malkawi, (2018): On the relationship between corporate governance and firm performance: Evidence from GCC countries. Research in International Business and Finance, 44: 394-410.
L. Wati, K. Pirzada, Ramdany and Momon, (2020): DETERMINANTS OF ACCOUNTING CONSERVATISM IN POLITICALLY CONNECTED FIRMS. Journal of Security and Sustainability Issues, 10: 189-201.
H. Li, (2020): Business Strategy, Accounting Conservatism and Performance. Accounting and Finance Research, 9(2).
D. Zelvian, & Mukti, A., (2022): The Effect of Corporate Governance Disclosures, Accounting Conservatism and Ownership Structure on Firm Value (Study in Industrial Sub-Sector of Indonesian Stock Exchange on 2018-2020). PROOF.