

The Moderating Effect of Institutional Ownership on the relationship between Characteristics of Board of Directors and Accounting Conservatism, Evidence from Listed Companies in Egypt, An Applied Study.

Mohamed Ibrahim Srour

Lecturer of Accounting, Department of Accounting, Tanta University, Egypt

mohamed.srou@commerce.tanta.edu.eg

ملخص البحث

تهدف هذه الدراسة إلى اختبار اثر الملكية المؤسسية على العلاقة بين خصائص مجلس الإدارة والتحفظ المحاسبي ، باستخدام عينة مكونة من ٦٤ شركة غير مالية مدرجة في البورصة المصرية (EGX 100) من عام ٢٠١٦ إلى عام ٢٠٢١. يستخدم هذا البحث نمذجة المعادلات الهيكلية باستخدام Smart-PLS 4. وقد توصلت النتائج إلى وجود تأثير إيجابي للمتغيرات المستقلة لخصائص مجلس الإدارة وهي (تنوع مجلس الإدارة (BD) – حجم مجلس الإدارة (BS) – اجتماعات مجلس الإدارة (BM)) – استقلال مجلس الإدارة (BI)) بشأن التحفظ المحاسبي. كما أن هناك تأثير إيجابي للملكية المؤسسية على التحفظ المحاسبي، بالإضافة إلى ذلك، تشير نتائج تحليل المسار إلى أن الملكية المؤسسية تعزز العلاقة بين خصائص مجلس الإدارة والتحفظ المحاسبي، مما يدل على وجود تأثير تكميلي حيث تعزز الملكية المؤسسية خصائص مجلس الإدارة. تقدم هذه الدراسة مساهمات تجريبية ونظرية أساسية من خلال التحقق من صحة العلاقات المفترضة بالتطبيق على البورصة المصرية. وبشكل عام، يعزز هذا البحث فهم الروابط بين الملكية المؤسسية، وخصائص مجلس الإدارة، والتحفظ المحاسبي.

الكلمات الدالة: الملكية المؤسسية ، خصائص مجلس الإدارة ، التحفظ المحاسبي

Abstract

This study aims to investigate the Moderating effect of Institutional Ownership on the relationship between Board of Directors' Characteristics and Accounting Conservatism. Using a sample of 64 non-financial firms listed in Egyptian Stock Exchange (EGX 100) from 2016 to 2021, which yielded 384 firm-year observations. This research employs structural equation modeling using Smart-PLS 4. The results find that there is a positive effect for the independent variables of the Board of Director Characteristics, namely (Board diversity (BD) – Board size (BS) – Board Meetings (BM) – Board independence (BI)) on Accounting Conservatism. Also, there is a positive effect for Institutional Ownership on Accounting Conservatism, Additionally, the results of the path analysis indicate that Institutional ownership strengthens the relationship between Board of Directors' Characteristics and Accounting Conservatism, indicating a complementary effect where Institutional Ownership enhance the Board of Directors' Characteristics' positive signal. This research significantly contributes both empirically and theoretically by confirming the hypothesized relationships within the Egyptian Stock Exchange. Overall, this paper enhances understanding of the linkages between Institutional Ownership, Board of Directors' Characteristics, and Accounting Conservatism.

Keywords Institutional Ownership, Board of Directors' Characteristics, Accounting Conservatism, Egypt

1. Introduction

Conservatism is a venerable principle in accounting that aims to minimize earnings and assets and increase costs and liabilities. It is rooted in the belief that it's preferable to be cautious and underestimate profits, rather than overestimate them and potentially mislead investors. The level of conservatism in a company's financial reporting is determined by the management of the company and its internal personnel. They must make a judgment call about how much weight to give to conservative accounting principles, and how much to focus on providing accurate and transparent information to investors. (wati et al., 2020).

However, the application of the conservatism principle depends on the characteristics of the board of directors. (Nasr & Ntim, 2018). Many research studies have examined the relation between the Board of Directors' characteristics and accounting conservatism. Even so, these studies have yielded inconsistent and inconclusive results (Enache & García, 2019). a number of empirical studies have discovered that the board of directors' characteristics appear to be an efficient corporate governance mechanism for reducing agency issues and found that board of directors' characteristics influence financial reporting for companies, including conservative accounting. (García et al. 2015; Ahmed& Duellman, 2007; Peasnell et al., 2005).

The ownership structure is essential because it is responsible for minimalizing agency problems between managers and stockholders and conflicts between the company's minority and majority stockholders, both of which can have a negatively effect on shareholder value (Okewale et al., 2020). Having an appropriate ownership structure and establishing good corporate governance are two critical requirements in today's hard environment, along with other internal corporate governance measures like characteristics of board of directors will positively affect the performance of the company. (Zraiq and Fadzil 2018).

Therefore, an organization that has self-valuation result on Corporate Governance implementation will enhance its corporate image and improve greater consumer loyalty which have a direct impact on the company's revenue and profitability and make it more attractive to investors. An augmentation in investor appeal will result in a corresponding surge in the market value of the company's shares, thereby influencing the market-to-book value ratio. The market-to-book value ratio serves as an approximation for the degree of conservatism in accounting. An upward trend in the market-to-book value ratio suggests that the organization is adopting a more conservative stance. The findings of prior investigations carried out by (Dianita & Supriyati, 2017) corroborate this assertion, which posits that accounting conservatism is influenced by corporate governance.

1.1 Significance of the study

Although various studies have explored the correlation between accounting conservatism and the characteristics of the board of directors, no research in Egypt has specifically examined how institutional ownership moderates the relationship between the board's characteristics and accounting conservatism.

1.2 Objective of the study

This study aims to investigate the Moderating effect of Institutional Ownership on the relationship between Characteristics of Board of Directors and Accounting Conservatism. Using a sample of 64 non-financial firms from 2016 to 2021 and answering the following questions:

- What is the effect of characteristics of board of directors on accounting conservatism for the listed companies in the Egyptian Stock Exchange?
- What is the effect of institutional ownership on accounting conservatism for the listed companies in the Egyptian Stock Exchange?
- What is the impact of the moderating effect of institutional ownership on the relationship between the characteristics of board of directors and accounting conservatism for listed companies in the Egyptian Stock Exchange?

2. Literature review and hypotheses development.

2.1 Agency Theory

Agency theory is a theory in economics and organizational theory that studies the problems and solutions associated with delegating decision-making authority. It was developed by Michael Jensen and William Meckling in 1976. In agency theory, there are two parties: the principal and the agent. The principal is the person who owns the asset or resource (shareholders), and the agent is the person who is hired to manage the asset or resource on behalf of the principal (management). The agency problem emerges due to the misalignment of objectives between the principal and the agent. The principal wants to maximize the value of the asset or resource, while the agent may have other goals, such as maximizing their own income or power. Agency theory provides a framework for understanding how to design contracts between principals and agents that will align their goals and minimize the agency problem. (Fani and Kusmuriyanto 2015).

Using the above explanation of agency theory, we can deduce that the management's conservative approach to presenting the company's financial statements serves to preserve the relationship between the parties involved with the company by mitigating agency conflict, at least in part because of the

existence of information asymmetry between the parties who transact with the company.(Dianita & Supriyati, 2017)

2.2 Accounting Conservatism

There were many studies in literature that provided different definitions of Accounting Conservatism. According to Watts (2003), accounting conservatism may be seen as a difference in the verification criteria placed on profits and losses. According to Beaver and Ryan (2005), accounting conservatism is characterized by an average underestimation of the book value of net assets compared to their actual market worth. As per Ruch and Taylor (2015), accounting conservatism is an approach that results in a negative net asset value bias in comparison to the actual net asset value. Hille (2011) indicate that accounting conservatism results from an asymmetry in the verification of profits and losses issues. There is a tendency to report profits with greater caution, while losses are exaggerated.

2.2.1 Types of accounting conservatism

There are two types of accounting conservatism, conditional and unconditional. Beaver and Ryan (2005) defined conditional conservatism, or news-dependent conservatism, as the practice of decreasing the value of assets in bad times but not increasing them in good times. According to (Ball et al., 2006) and (Armstrong et al., 2010) conditional conservatism places less

emphasis on verifying negative news than positive news. This causes negative news to be recognized before good news. Based on their research, Garcia Lara et al. (2020), concluded that conditional conservatism causes immediate monetary losses to be recognized that will compound over time. The book's usefulness is understated by an unqualified conservative stance, according to Beaver and Ryan (2005). Managers' ability to make decisions of conservative, for example delaying recognition of revenue, allocating a larger portion of expenses to research and development (R&D), and adopting accelerated method of depreciation, is essential to news-independent conservatism. Since the existence of assets and liabilities is established at the moment when the unconditional is validated, the unconditional comes first (Garcia lara et al., 2009; Beaver & Ryan, 2005). Bryan et al., (2021) noted that unconditional conservatism relies on what is known at the beginning of an asset's life. It is not the result of a single economic trigger.

2.3 Board of Directors' Characteristics and Conservatism

(surachi et al., 2020) found that the characteristics of corporate boards of directors correlate with the degree to which businesses listed on the Thai stock market adhere to conservative accounting practices. Statistical evidence linked the board quality to more conservative financial reporting practices. Furthermore, it has

been shown that more frequent board meetings lead to more cautious in financial reporting.

2.3.1 Board diversity and accounting conservatism

The rise number of women in board of directors has sparked interest in their impact on financial decision-making. Research suggests this diverse representation not only benefits companies competitively (Widhiastuti et al., 2020; Stephenson & Nt, 2004) but also shapes how financial choices are made (Huang & Kisgen, 2013). In other words, female and male directors tend to approach financial decisions differently. Accounting literature suggests female executives exhibit a more conservative approach, opting for lower-risk decisions (Ho et al., 2015; Boussaid et al., 2015; Francis et al., 2013, 2015; Peni & Vähämaa, 2010; Vermeir & Van Kenhove, 2008; Krishnan & Parsons, 2008). This aligns with broader findings in psychology, socialization, and economics that link women to risk aversion (Francis et al., 2015). Ultimately, these distinctive decision-making tendencies between female and male members of executive boards (Levi et al., 2008; Huang & Kisgen, 2013) have sparked significant research interest in understanding the unique role female executives play in shaping financial strategies. Thus, based on the arguments above, the first hypothesis is structured in the following manner:

H₁: board diversity positively affects accounting conservatism.

2.3.2 Board independence and accounting conservatism

The independence of the board is a crucial aspect of effective corporate governance. Having the appropriate number of the independent non-executive members for board of directors is essential for efficient oversight. Amran, N. and Abdul Manaf, K., (2014) state that if there is a sizable number of the independent non-executive members on the board, then the board may be considered independent. According to many studies (Craven & Wallace, 2001; Byrd & Hickman, 1992), Agency problem may be mitigated with the presence of independent, non-executive directors who monitor management and look out for shareholders' interests. Since many non-executive directors are also hold significant decision-making roles in other businesses, (Jensen, 1993) claim that they improve the efficiency of internal control. Voluntary adopters of best practice mechanisms of corporate governance (audit committee creation, increased board independence, and reduced board size) are more probable to utilize unconditional conservatism as a supplementary agency control device, according to research by (Ahmed and Henry, 2012). Thus, based on the arguments above, the second hypothesis is structured in the following manner:

H₂: board independence positively affects accounting conservatism.

2.3.3 Board meetings and accounting conservatism

Board meetings represent critical junctures where strategic decisions, including those related to financial reporting, are made. Scholars have recognized the importance of board engagement in financial matters (Shivdasani and Yermack, 1999). The frequency of board of directors meetings is an indicator of improving the effectiveness of the board, and it also gives an idea of the time spent by members of the board of directors monitoring the performance of executive management. Once the Board of Directors holds its meetings on a regular basis, this means that they spend more time monitoring senior management and staying on track. Empirical evidence suggests that firms with more frequent board meetings are likely to exhibit a higher degree of accounting conservatism, indicating a commitment to conservative financial reporting (Gul et al., 2009). Thus, based on the arguments above, the third hypothesis is structured in the following manner:

H₃: Board meetings positively affect accounting conservatism.

2.3.4 Board size and accounting conservatism

There is considerable debate surrounding the determination of the optimal size of the Board of Directors, which can impact the efficient execution of its responsibilities. The board size of is a critical factor in the decision-making

process, given the non-linear correlation between the number of board members and firm performance. Agency theory posits that a larger board of directors can help reduce conflicts of interest by encouraging more accounting conservatism. However, there is ongoing debate about how effectively board size influences this level of accounting conservatism (Ahmed & Duellman, 2007). Some research argue that larger boards have the diverse expertise needed for accurate financial reporting (Ebrahim & Fatah, 2015). However, others believe large boards create inaccuracies and increase accounting conservatism (Muttakin et al., 2019; Farizal et al., 2017; Ahmed and Henry, 2012). Conversely, some studies find large boards lead to less effective management due to communication difficulties which ultimately decreasing accounting conservatism (Nasr & Ntim, 2018; Boussaid et al., 2015; Abdul-Manaf et al., 2014; Ahmed & Duellman, 2007; Eisenberg et al., 1998). Therefore, further research is needed to untangle these mixed findings. Thus, based on the arguments above, the fourth hypothesis is structured in the following manner:

H₄: Board size positively affects accounting conservatism.

2.4 Institutional Ownership, Board of Director Characteristics, and Accounting Conservatism

Institutional ownership is a form of ownership structure where shares acquired by institutional investors such as financial

entities (Ali et al., 2022). There are numerous debates regarding the role of institutional investors as majority shareholders. Some research studies have found that companies with a significant proportion of institutional investors tend to adopt more conservative practices. (El-habashy, 2019; Alkurdi, et al., 2017; Lin, et al., 2014). Alternatively, Additional research studies have discovered that institutional ownership may decrease conservatism (Lin, 2016; Chi et al., 2009; Ahmed & Duellman, 2007). On the contrary, other research studies have shown that institutional ownership does not influence accounting conservatism. (Ahmed & Henry, 2012). As a result, this research modifies the relationship between board of directors' characteristics and accounting conservatism by including a moderating variable represented by institutional ownership. Thus, based on the arguments above, the fifth and sixth hypotheses are structured in the following manner:

H₅: Institutional ownership has a positive impact on accounting conservatism.

H₆: Institutional Ownership strengthens the relationship between characteristics of board of directors and Accounting Conservatism.

This hypothesis is divided into a group of sub-hypotheses:

- *H_{6.1}: Institutional ownership strengthens the relationship between board diversity and accounting conservatism.*
- *H_{6.2}: Institutional ownership strengthens the relationship between board size and accounting conservatism.*
- *H_{6.3}: Institutional ownership strengthens the relationship between board meetings and accounting conservatism.*
- *H_{6.4}: Institutional ownership strengthens the relationship between board independence and accounting conservatism.*

3. Research Methodology

3.1 Research Design

This study extracts data from 64 non-financial companies listed on the Egyptian Stock Exchange (EGX 100) from 2016 to 2021 via content analysis. Firm years lacking the requisite data needed for the variables utilized in this analysis are omitted from this study. The concluding sample comprises 384 observations from the firm-year. Additionally, the information utilized in this study was obtained from Egypt for Information Dissemination EGID.

3.2 Research models and variable measurement

This research employs structural equation modeling using Smart-PLS 4. This study employs two regression models in order to test the first five research hypotheses and path analysis to test the sixth hypothesis as follows:

Models:

$$\text{Cons} = \beta_0 + \beta_1 \text{BD} + \beta_2 \text{BI} + \beta_3 \text{BM} + \beta_4 \text{BS} + \beta_5 \text{Pro} + \beta_6 \text{Lev} + \beta_7 \text{FS} + e_t \dots\dots\dots (1)$$

$$\text{Cons} = \beta_0 + \beta_1 \text{IO} + \beta_2 \text{Pro} + \beta_3 \text{Lev} + \beta_4 \text{FS} + e_t \dots\dots\dots (2)$$

Note:

Cons = Accounting conservatism

IO = Institutional ownership

BD = Board diversity

BI = Board Independence

BM = Board meetings

BS = Board size

Lev = Leverage

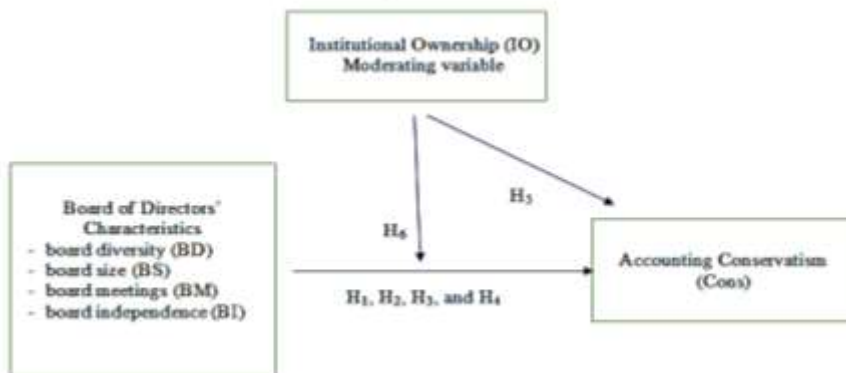
Pro = Profitability

FS = Firm size

Table 1. Study variables.

Variable	Label	Variable Label	Measurement
Dependent Variable	Cons	Accounting conservatism	= { (income before extraordinary items + depreciation expense - cash flow from operation) / the average total assets } * -1
Independent Variables	BD	Board diversity	= No. women directors on the board / total no. of the board members
	BS	Board size	= Total no. of board members
	BI	Board Independence	= No. independent director / total no. of the board members
	BM	Board meetings	= No. of annual boards of director meetings of firm
Moderator Variable	IO	Institutional ownership	% of stocks held by institutional owners
Control variables	Pro	Profitability	ROA = net income / total assets
	Lev	Leverage	= total debt / total assets
	FS	Firm size	= natural log of total assets

Figure (1) Research model



4. Statistical Results

4.1 Descriptive Statistics

Table 2 shows that the mean of the (cons) variable was 24.03 and the average of the variables (BD-BS-BM-BI) were the following values respectively (0.11 – 9.64 – 10.52 – 0.76). Also, the average of the variables (FS-Lev-Pro-IO) reached the following values (9.57 – 0.435 – 0.07 – 0.68)

Table (2) Descriptive statistical

Variable	Obs	Mean	Std. Dev.	Min	Max
Cons	384	24.031	833.29	-3,013.70	5,805.72
BD	384	0.1166	0.0917	0.0000	0.2857
BS	384	9.6477	2.5925	5.0000	17.0000
BM	384	10.5227	5.7670	4.0000	24.0000
BI	384	0.7616	0.1452	0.4444	0.9286
Fs	384	9.5793	0.4565	8.6354	10.6466
LEV	384	0.4356	0.2491	0.0000	0.9442
pro	384	0.0770	0.0851	-0.1686	0.3486
io	384	0.6810	0.2006	0.2628	1.0000

Source: Stata v14 output.

4.2 Normality test

Table (3) shows that the significance values for study variables range between 0.064 and 0.81, which is less than 0.05, which indicates that the study variables follow the normal

distribution according to the decision rule of the Skewness and kurtosis test.

Table (3) Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
Cons	384	0.1104	0.7939	2.7	0.2595
BD	384	0.1623	0.1014	4.67	0.0968
BS	384	0.1436	0.284	3.39	0.1833
BM	384	0.0568	0.5441	4.13	0.1269
BI	384	0.0517	0.5729	4.24	0.1201
Fs	384	0.6534	0.661	3.4	0.192
LEV	384	0.5811	0.0206	5.48	0.0646
pro	384	0.2928	0.2627	2.43	0.2963
io	384	0.8897	0.1077	2.69	0.261

Source: Stata v14 output.

4.3 Correlation test

The results of the correlation test between the study variables according to the outputs of Table (4) show that there is a direct relationship between the Accounting Conservatism variable and the variables (IO – BD – BS – BM -Bi - Fs) and the values of the correlation coefficient were (0.09 – 0.039 – 0.048 – 0.053 – 0.192 – 0.059), while there is an inverse relationship between the Accounting Conservatism variable and the variables (Lev-Pro) with correlation values (-0.188/-0.080).

Also, There is a positive relationship between Institutional Ownership and the variables (BD-BS-BM-BI-Fs)

with correlation values of (0.20 – 0.16 – 0.23 – 0.059 – 0.27), while there is an inverse relationship between Institutional Ownership and the variables (Lev-pro) with correlation values of (-0.065 / -0.131).

Table (4) Correlation test

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Cons	1.000								
(2) io	0.093	1.000							
(3) BD	0.039	0.204	1.000						
(4) BS	0.048	0.160	-0.230	1.000					
(5) BM	0.053	0.231	-0.204	0.172	1.000				
(6) BI	0.192	0.059	-0.143	0.303	0.272	1.000			
(7) Fs	0.059	0.027	-0.019	0.291	0.107	-0.165	1.000		
(8) LEV	-0.188	-0.065	-0.273	-0.007	0.136	-0.291	-0.022	1.000	
(9) pro	-0.080	-0.131	0.336	0.077	0.079	0.129	-0.097	-0.095	1.000

** $p < 0.05$

Source: Stata v14 output.

4.4 Study Hypothesis tests

The study includes three main models, so multiple regression was used to examine each model separately and determine the impact of independent variables on the dependent variable, and the following are the measurement results for each model and test the study hypotheses.

4.4.1 Impact of Board of Directors' Characteristics on accounting conservatism.

To examine the impact of the characteristics of the Board of Directors on accounting conservatism, the first study model was tested and examined well to ensure that the model rate did not have statistical errors.

Figure (2) Model (1) fit tests

```
. predict resid1, residual
.
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of Cons

      chi2(1)    =    2.11
      Prob > chi2 =  0.1462

. mvtest normality resid1

Test for multivariate normality

      Doornik-Hansen          chi2(2) =    0.803   Prob>chi2 =  0.6692

. swilk resid1

      Shapiro-Wilk W test for normal data
```

Variable	Obs	W	V	z	Prob>z
resid1	384	0.98301	1.262	0.512	0.30427

Source: Stata v14 output.

Figure (2) shows that the value of the Breusch-pagan for Heteroskedasticity test reached 2.11 with a significant value of 0.1462, which is greater than 5%, which indicates that the variables of the first model are Heteroscedasticity, and we can use the model to predict. Also The value of the Doornik-Hansen test was 0.803 and a significant value of 0.6692, which is greater than 0.05, which indicates that the residuals follow the normal distribution, which is confirmed by the Shapiro-Wilk test, which aims to examine the normal distribution of the study model, and it was found that the value of the Shapiro-Wilk test amounted to 0.30, which is greater than 5%, which also indicates that the residues of the model follow the normal distribution, The following table shows the results of the multiple regression test for the first model.

Table (5) results of the multiple regression test for the first model

Cons	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
BD	.488	5.765	4.08	.003	-10.984	11.961	**
BS	.017	3.13	3.13	.007	-.242	.276	**
BM	.022	3.099	5.23	.021	-.219	.174	**
BI	.109	4.085	4.50	.039	-14.238	2.021	**
Fs	-.109	3.71	4.15	.000	-1.523	1.305	**
LEV	-.702	2.41	3.21	.001	-1.105	4.509	**
pro	-.56	4.868	6.97	.006	-10.078	29.199	**
Constant	.639	6.135	5.94	.011	-8.551	23.828	**
Mean dependent var		3.084	SD dependent var			2.703	
R-squared		0.583	Number of obs			384	
F-test		4.032	Prob > F			0.006	
Akaike crit. (AIC)		432.102	Bayesian crit. (BIC)			451.920	

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Stata v14 output.

Table 5 shows, The interpretation coefficient is $R^2 = 0.583$, and we conclude that variables (BD–BS – BM – BI – FS – LEV – PRO) explain 85.3% of the changes in the dependent variable (CONS), also F-test = 4.032, with a significant value is 0.006, which is less than 5%, that means the study model is significant, and the following model equation can be used in prediction:

$$\text{Cons} = 0.639 + 0.488 \text{ BD} + 0.109 \text{ BI} + 0.022 \text{ BM} + 0.017 \text{ BS} - 0.56 \text{ Pro} - 0.70 \text{ Lev} - 0.10 \text{ FS}$$

The significant values of the model variables ranged between 0.001 and 0.039, which is less than 5%, which indicates that the model variables are significant.

The coefficient of the model variables shows that there is a positive effect for the independent variables of the Board of Director Characteristics (BD–BS – BM – BI) on Accounting Conservatism by values (0.488 - 0.017 - 0.022 - 0.109). also, there is a negative impact for control variables (FS – LEV – PRO) on Accounting Conservatism by values (-0.109 / -0.702 / -0.56). Therefore, H_1 , H_2 , H_3 , and H_4 are accepted. This means that Board of Director Characteristics, namely (Board diversity (BD) –Board size (BS) – Board Meetings (BM) – Board independence (BI)) in the Egyptian firms may positively affect Accounting Conservatism.

4.4.2 Impact of Institutional Ownership on accounting conservatism.

To examine the effect of institutional ownership on accounting conservatism, the second study model was tested and examined well to ensure that the model rate did not have statistical errors.

Figure (3) shows, the value of the Doornik-Hansen test is (0.907) with a significant value (0.635), which is greater than 0.05, that means the residuals follow the normal distribution. Also, confirmed by the Shapiro-Wilk test, which aims to examine the normal distribution of the study model, and it was found that the value of the Shapiro-Wilk test is (0.0915), which is greater than 5% that also indicates that the residues of the model follow the normal distribution.

Figure (3) Model (2) fit tests

```
. mvtest normality resid3
Test for multivariate normality
Doornik-Hansen          chi2(2) =    0.907  Prob>chi2 =  0.6355
. swilk resid3
Shapiro-Wilk W test for normal data
```

Variable	Obs	W	V	z	Prob>z
resid3	384	0.97535	1.830	1.331	0.09152

Source: Stata v14 output.

Table (6) results of the multiple regression test for the third model

Cons	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
io	.927	1.459	3.64	.007	-3.829	1.975	**
Fs	-.097	2.637	-2.15	.009	-1.169	1.364	**
LEV	-.22	1.246	-4.78	.038	-.257	4.698	**
pro	-.542	1.078	-2.83	.048	-10.514	25.598	**
Constant	.32	1.325	-3.21	.005	-11.26	13.9	**
Mean dependent var		3.084	SD dependent var			2.703	
R-squared		0.550	Number of obs			384	
F-test		4.086	Prob > F			0.000	
Akaike crit. (AIC)		429.219	Bayesian crit. (BIC)			441.606	

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Stata v14 output.

Table 6 shows, The interpretation coefficient is $R^2 = 0.55$, and we conclude that variables (IO–FS – LEV – PRO) explain 55 % of the changes in the dependent variable accounting conservatism, also F-test = 4.086 with a significant value is (0.000), which is less than 5%, that means the study model is significant and the following model equation can be used in prediction:

$$\text{Cons} = 0.032 + 0.927 \text{ IO} - 0.542 \text{ Pro} - 0.22 \text{ Lev} - 0.097 \text{ FS}$$

The significant values of the model variables ranged between 0.005 and 0.048, which is less than 5% that indicates the model variables are significant.

The coefficient of the model variables shows that there is a positive effect for the independent variables Institutional Ownership on Accounting Conservatism by values (0.927). Also,

there is a negative impact for control variables (FS – LEV – PRO) on Accounting Conservatism by values (-0.097 / -0.22 / -0.54). Therefore, H₅ is accepted. This means that Institutional Ownership in the Egyptian firms may positively affect Accounting Conservatism.

4.4.3 Impact of Institutional Ownership on the relationship between Board of Directors' Characteristics and Accounting Conservatism

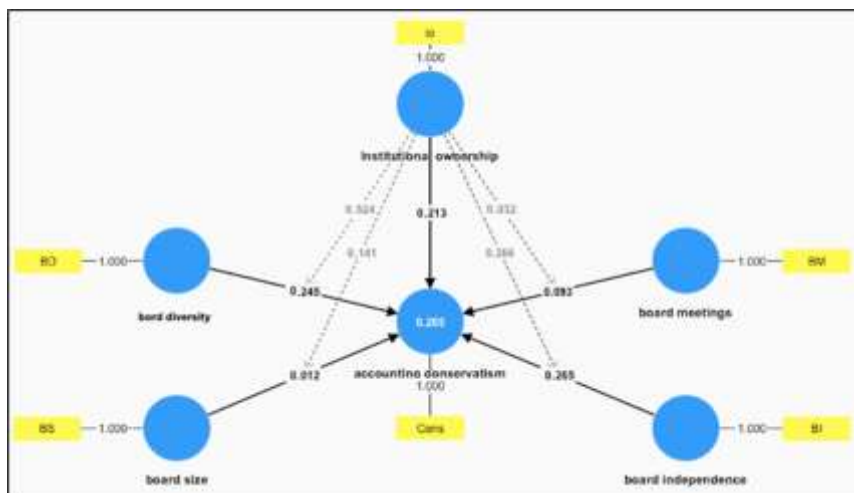
To assess the model fit indices and determine the relationships within the model, we employ structural equation modeling using Smart-PLS 4. Table no (7) shows the value of the SRMR index = 0.03, which is less than 0.08, which indicates that the estimated model is good. Also, the d-ULS index and the d-G index are 0.00, which is less than 0.05, which indicates that the estimated model has great quality. and NFI=0.92 is closer than 1, which means the model is fit.

Table (7) model fit indices

	Estimated model
SRMR	0.003
d-ULS	0.00
d-G	0.00
Chi-square	2.021
NFI	0.92295

source: smart-pls v4 output.

Figure (4) Path analysis Result



Source: smart-pls v4 output.

The results of the path analysis in figure (4) indicate that the variable board diversity has a positive effect on the variable accounting conservatism with a value of 0.245, as well as Institutional ownership strengthens the relationship between board diversity and accounting conservatism by 0.524 and there is a direct impact for board size on accounting conservatism by 0.012, and Institutional ownership strengthens the relationship between board size and accounting conservatism by 0.141.

Also, there is a direct impact for board independence on accounting conservatism by 0.265, and Institutional ownership strengthens the relationship between board independence and accounting conservatism by 0.266 and here is a direct impact for board meetings on accounting conservatism by 0.093, and Institutional ownership strengthens the relationship between board meetings and accounting conservatism by 0.032.

Table (8) sub-hypothesis summary

path	Path coefficients	t-test	p-value	hypothesis	decision
Institutional ownership x board diversity -> accounting conservatism	0.524	3.474	0.001	H _{6.1} : Institutional ownership strengthens the relationship between board diversity and accounting conservatism.	Acceptance
Institutional ownership x board size -> accounting conservatism	0.141	5.898	0.009	H _{6.2} : Institutional ownership strengthens the relationship between board size and accounting conservatism.	Acceptance
Institutional ownership x board meetings -> accounting conservatism	0.032	3.221	0.005	H _{6.3} : Institutional ownership strengthens the relationship between board meetings and accounting conservatism.	Acceptance
Institutional ownership x board independence -> accounting conservatism	0.266	4.919	0.025	H _{6.4} : Institutional ownership strengthens the relationship between board independence and accounting conservatism.	Acceptance

The results in Table No. (8) confirm the acceptance of the sub-hypotheses of the sixth main hypothesis at a significance level of less than 5%, where the significance values range from 0.001 to 0.025.

6. Conclusion

The aim of this study is to investigate the Moderating effect of Institutional Ownership on the relationship between Board of Directors' Characteristics and Accounting Conservatism using a sample of 64 non-financial firms listed in Egyptian Stock Exchange (EGX 100) from 2016 to 2021. The results of the correlation test between the study variables show that there is a direct relationship between the Accounting Conservatism variable and the variables (Io – BD – Bs - Bm BI-FS), while there is an inverse relationship between the Accounting Conservatism variable and the variables (Lev-Pro).

The results of this study provide evidence that having Board diversity (BD), Board size (BS), Board Meetings (BM), and Board independence (BI)) are associated with increased levels of accounting conservatism practices. Also, companies with a significant proportion of institutional investors tend to adopt more conservative practices. However, companies with a large firm size, small leverage, and small profitability are likely to adopt more conservative practices. Additionally, this study reveals that institutional ownership enhances the relationship

between board of directors' characteristics, namely board diversity (BD), board size (BS), board meetings (BM), and board independence (BI) on Accounting Conservatism.

The results of this study can provide recommendations to Future research to examine the effect of various types of ownership structure and other board of directors' characteristics on Accounting Conservatism.

References

- Ahmed, A. S., & Duellman, S. (2007). Accounting conservatism and board of director characteristics: An empirical analysis. *Journal of Accounting and Economics*, 46(2/3): 411-437.
- Ahmed, K., & Henry, D. (2012). Accounting conservatism and voluntary corporate governance mechanisms by Australian firms. *Accounting & Finance*, 52(3), 631–662.
- Ali, J., Tahira, Y., Amir, M., Ullah, F., Tahir, M., Shah, W., ... & Tariq, S. (2022). Leverage, Ownership Structure and Firm Performance. *Journal of Financial Risk Management*, 11(1), 41-65.
- Alkurdi, A., Al-Nimer, M., & Dabaghia, M. (2017). Accounting conservatism and ownership structure effect: Evidence from industrial and financial Jordanian listed companies. *International Journal of Economics and Financial Issues*, 7(2), 608–619
- Amran, N., Abdul Manaf, K. (2014). Board independence and accounting conservatism in Malaysian companies. *Social and Behavioral Sciences* 164 (2014) 403 – 408.
- Armstrong, C., Guay, R., & Weber, J. (2010) " The Role of Information & Financial Reporting in Corporate Governance & Debt Contracting", *Journal of Accounting & Economics*, 50 (1):179-234.
- Ball, R., Robin, A., & Sadka, G. (2006), " Are Timeliness and Conservatism due to Debt or Equity Markets? An International Test of Contracting and value Relevance Theories", Manuscript University of Chicago.

- Beaver, W., & Ryan, S. (2005), " Conditional & unconditional Conservatism: Concepts & Modeling", *Review of Accounting Studies*, 10(1): 269-309.
- Bryan, T., Mcknight, M., & Houmes, R., (2021), " Accounting Conservatism or Earnings Management: A Study of the Allowance for Doubtful Accounts", *Corporate Ownership and control*, 18(3) :175-190.
- Byrd, J., & Hickman, K. (1992). Do outside directors monitor managers? Evidence from tender offer bids. *Journal of Financial Economics*, 32, 195-221.
- Cravens. K. S., & Wallace, W. A. (2001). A framework for determining the influence of the corporate board of directors in accounting studies. *Corporate Governance*, 9, 2-24.
- Chi, W., Liu, C., & Wang, T. (2009). What affects accounting conservatism: A corporate governance perspective. *Journal of Contemporary Accounting & Economics*, 5(1), 47–59.
- Dianita Affianti & 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.
- El-habashy, H. A. (2019). The effect of corporate governance attributes on accounting conservatism in Egypt. *Academy of Accounting and Financial Studies Journal*, 23(3), 1–18.
- Enache, L., & García-Meca, E. (2019). Board composition and accounting conservatism: The role of business experts, support specialists, and community influentials. *Australian Accounting Review*, 29(1): 252–265.

- Farizal, M. N., Kamran, A., & Xu-Dong, J. (2017). Accounting conservatism, corporate governance, and political connections. *Asian Review of Accounting*, 25(2): 288–318.
- Fani Risdiyani & Kusmuriyanto, (2015). Analysis of Factors Influencing the Implementation of Accounting Conservatism. *Accounting Analysis Journal*, 4 (3): 1-10.
- García-Sánchez, Martínez-Ferrero & García-Meca. (2017). Board diversity and its effects on bank performance: An international analysis. *Journal of Banking & Finance* 53(1): 202-214
- Gracia Lara, J., Garcia osma, B., & Penalva, F. (2020),” Conditional Conservatism and the limits to Earning Management”, *Journal of Accounting & Public Policy*, 39(4).
- Gracia Lara, J, Garcial, osma, B., & Penalva, F. (2009), " Accounting Conservatism and Corporate Governance", *Review of Accounting studies*, 14(1): 161 – 201
- Gul, F. A., Fung, S. Y. K., Jaggi, B., (2009). Earnings quality: Some evidence on the role of auditor tenure and auditors’ industry expertise. *Journal of Accounting and Economics*، 47(3), 265-287.
- Jensen, M. C. (1993). The modern industrial revolution, exit and failure of internal control systems. *Journal of Finance*, 48, 831-880.
- Lin, F., Wu, C.-M., Fang, T.-Y., & Wun, J.-C. (2014). The relations among accounting conservatism, institutional investors, and earnings manipulation. *Economic Modelling*, 37(2), 164–174.

- Lin, L. (2016). Institutional ownership composition and accounting conservatism. *Review of Quantitative Finance and Accounting*, 46(2), 359–385.
- Muttakin, M. B., Khan, A., & Tanewski, G. (2019). CFO tenure, CFO board membership, and accounting conservatism. *Journal of Contemporary Accounting & Economics*, 15(3), 100165.
- Nasr, M. A., & Ntim, C. G. (2018), Corporate governance mechanisms and accounting conservatism: Evidence from Egypt. *Corporate Governance: The International Journal of Business in Society*, 18(3): 386–407.
- Okewale, J. A., Mustapha, O. A., & Aina, G. O. (2020). Ownership Structure and Financial Performance of quoted Food and Beverage Firms in Nigeria. *KIU Journal of Social Sciences*, 6(2), 263
- Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: Do outside directors influence abnormal accruals?. *Journal of Business Finance & Accounting*, 32(7-8): 1311-1346.
- Shivdasani, A. and Yermack, D. (1999) CEO Involvement in the Selection of New Board Members: An Empirical Analysis. *The Journal of Finance*, 54, 1829-1853.
- Wati, L., Pirzada, K., & Momon, R. (2020), Determinants of Accounting Conservatism in Politically Connected Firms, *Journal of Security & Sustainability issues*, 10(1): 189-201.
- Zraiq, M. A. A., & Fadzil, F. H. B. (2018). The impact of ownership structure on firm performance: Evidence from Jordan. *International Journal of Accounting, Finance and Risk Management*, 3(1): 1-4.