The determinants of unconditional conservatisms: a cross-country study

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Abstract: Accounting conservatism is a fundamental qualitative characteristic of financial statements. For centuries, it has had a significant impact on accounting practices. The goal of this study is to investigate the attributes of firms and countries, as well as their relative importance in influencing the level of unconditional conservatism. The data for Hierarchical Linear Modeling was collected from a sample of 5470 publicly traded firms from 55 countries between 2017 and 2019. The results reveal that country differences explain approximately 31 percent of the variance in the level of unconditional conservatism. Thus, firm attributes are superior in explaining cross-country variance in the level of accounting conservatism. Regarding country attributes, the results suggest that firms located in well-governed countries exhibit much greater levels of unconditional conservatism in their financial reporting techniques. Furthermore, firms residing in countries with higher socioeconomic conditions recognise negative news in financial reports quicker than firms located in countries with lower socioeconomic conditions. Moreover, negative events may not be released instantaneously in economically free countries. Regarding firm attributes, both accounting regulations and tax growth influence the level of unconditional conservatism. The findings may have significant implications for regulators, standards-setters, analysts, and corporate governance. The findings of this study contribute to a better understanding of the effects of financial and nonfinancial factors in explaining accounting practices. Understanding the motivation that influences earnings quality will enable businesses to make more sound investment decisions.

Keywords: Unconditional Conservatism, Socioeconomic, Governance, Economic Freedom.

Introduction

Financial reporting quality has been under increased scrutiny in recent years because of increased financial reporting collapses, such as Parmalat, Lehman Brothers, and Enron. Conservatism is a significant qualitative characteristic of earnings quality (Guermazi and Halioui, 2020). It enhances contracting efficiency, reduces information asymmetry, and has sparked scholarly research.(Basu, 1997, Watts, 2003, Kanagaretnam et al., 2014, Khalifa, 2016). The IASB modified the Conceptual Framework for Financial

Reporting in 2018 and states that it is important to practise prudence (conservatism) in calculating accounting elements as a component of neutrality (Bloom, 2018, Pelger, 2020). Prudence may be defined as exercising caution when making judgments under uncertain conditions (IASB, 2018). FASB describes conservatism in its Statement of Concepts No. 2 as a precautionary approach to ambiguity to assure that risks associated with business transactions are properly taken into consideration (FASB, 1980).

Researchers distinguish two types of conservatism: conditional conservatism and unconditional conservatism. The main distinction is that conditional conservatism (CC) is used when economic news is available, whereas unconditional conservatism (UNCC) is unaffected by news. The type of accounting conservatism used is determined by the firm's strategy. For example, if a company's top priority is expansion, managers will try to increase liabilities while decreasing asset values. As a result, UNCC is used to mitigate a firm's growth bias (Beaver and Ryan, 2005). UNCC refers to accounting practises in which positive events are recognised faster than negative events (Basu, 1997, Beaver and Ryan, 2005, Ruch and Taylor, 2015, Guermazi and Halioui, 2020).It allows the monitoring of management, debt, and other contracts and is considered an essential element of corporate governance (Ball et al., 2000, Liu, 2019). UNCC is defined by Ball and Shivakumar (2005) as a regular under recognition of book value of net assets. It results in a systematic bias in net asset value. For example, immediate R&D expense and accelerated depreciation. The implementation of UNCC-compliant accounting policies will almost certainly have a consistent effect on income from time to time (Chen et al., 2014).

Accounting conservatism is considered management selections (Salter et al., 2013). Previous studies conclude that firm and country-level attributes influence management behavior, which shapes the quality of accounting information published (El-habashy, 2019, Liu, 2019, Guermazi and Halioui, 2020, Wronski and Klann, 2020). Attributes include IFRS(El-Bannany, 2018, Zeghal and Lahmar, 2018, Barhamzaid, 2019), culture(Chand, 2012, Zeghal and Lahmar, 2018, Guermazi and Halioui, 2020), institutional factors(Ball et al., 2000, Kung et al., 2008, Salter et al., 2013), taxation and accounting regulations (Ball et al., 2000, Ball and Shivakumar, 2005, Basu, 2005).

Understanding the influence and relative importance of firm and country attributes on the level of UNCC is essential for firms as they expand and move beyond their domestic market. International studies try to capture the cross-country differences in UNCC. They demonstrate that both firm- and country-level attributes may influence the level of accounting conservatism (Guermazi and Halioui, 2020). Regarding the firm level attributes, Lara et al. (2009) identify three main determinants that drive UNCC: regulation, litigation, and taxation.

Regarding the country level attributes, Salter et al. (2013) find that social and institutional factors influence the level of conservatism applied by accountants. In the same line, Kanagaretnam et al. (2014) find that culture has a significant impact on the level of conservatism in financial reports, and that more bank failures have been experienced during the financial crisis in societies that promote higher risk taking. Gray et al. (2015) report a negative association between individualism and conservatism, as well as a positive association with uncertainty avoidance. Moreover, they suggest a significant correlation between collectivism and conservatism. They also find a positive(negative) association between conservatism and uncertainty avoidance (risk taking).

In several ways, this study adds to the international accounting literature.First, this study employs an empirical contribution by integrating firm and country attributes into a single cross-sectional analysis via Hierarchical Linear Modeling (HLM). HLM supports the nested nature of conservatism, which is affected

by firm attributes as well as the country in which a firm is located. Firms located in the same country typically share similar socioeconomic and governance attributes. As a result, when traditional methods are used in the analysis, standard errors are underestimated, resulting in falsely significant model parameter estimates. Additionally, it breaches the fundamental requirements of OLS(Ordinary Least Squares) regression concerning observation independence, resulting in heteroscedasticity. Dong and Stettler (2011) note that the results of the OLS regression, which consolidates firm- and country- level attributes using either a disaggregation or an aggregation method, are questionable and inaccurate. To resolve this methodological limitation, HLM is employed to estimate firm- and country-level conservatism simultaneously. Standard errors of parameter estimates are more accurately calculated using this method (Heck et al., 2014).

Second, prior studies on accounting conservatism, as far as the researcher's knowledge, have focused on identifying the determinants influencing accounting conservatism on a firm- or country-level basis separately, with far less attention paid to adding additional levels to the analysis and their relative importance. An exception is Gaio (2010) who investigated the relative importance of firm, industry, and country factors in influencing financial reporting quality in 38 countries over 1990-2003. Thus, this enables a deeper understanding of the influence of UNCC's various determinants as well as a comparison of their relative importance. Finally, UNCC receives less attention than conditional conservatism in literature (Barhamzaid, 2019, Guermazi and Halioui, 2020). The goal of this study is to fill the gap by focusing on the relative importance and impact of firm and country attributes on UNCC in a wide range of developed and developing countries.

Findings from this study suggest that country characteristics account for 31% of variation in UNCC. Thus, firm attributes are superior in explaining cross-country variance in the level of UNCC. Unconditional conservatism is more prevalent in countries with high governance quality and high socioeconomic conditions, which report their earnings more conservatively. Additionally, unconditional conservatism is less prevalent in countries with a free market economy. Finally, the degree of unconditional conservatism is influenced by the level of accounting regulations as well as tax growth. The results provide critical information for accounting standard setters, decision makers, and regulators. The overall results of this study will provide investors with information about a wide range of markets. In addition, the results may help standard setters and policy makers in developing the necessary standards and policies to support the transparency and credibility of financial disclosure.

This study is structured as follows: Section 2 explores theories, a review of the literature, and hypothesis development. This is followed by describing the sample and the models employed to test the hypothesis. The empirical data and conclusion are discussed in Section 4. Section 5 summarises the major findings.

Literature review and hypothesis development

Accounting conservatism is one of the oldest accounting concepts that affects the foundation of the principle of realization(Watts, 2003). FASB describes conservatism in its Statement of Concepts No. 2 as a precautionary approach to uncertainty to ensure that risks associated with business transactions are properly taken into consideration(FASB, 1980). Ball and Shivakumar (2005) describe accounting conservatism as an essential element in financial reporting quality as it boosts contracting efficiency, minimises opportunistic management behavior, reduces information asymmetry, and enhances corporate governance. On the other

hand, . Basu (1997) argues that conservativism is inconsistent with the matching principle in accounting. It delays earnings recognition until they are certain and speeds cost recognition as soon as possible.

The agency theory is useful in understanding and anticipating management policy and stakeholder demands to implement conservative accounting principles. It describes the relationship between stakeholders and managers. There is strong demand for conservatism when information asymmetry is high. Information asymmetry is a situation under which the manager has more information on the firm and potential prospects than the owners. This gives managers an opportunity to use their knowledge to manipulate earnings to increase wealth. The managers try to select accounting principles that boost profits to increase their bonuses and borrow money quickly. Thus, shareholders are calling for more prudent accounting practises to restrict management's opportunistic behaviour and reduce information asymmetry(Liu, 2019, Watts, 2003). This study focuses on UNCC, which arises through regular underrecognition of book value of net assets(Ball and Shivakumar, 2005). The book values are written down in unfavourable conditions but not written up in favourable conditions(Guermazi and Halioui, 2020). Examples of unconditional conservatism are using accelerated depreciation, determining the probable useful life of fixed assets, and expensing research and development costs.

everal firm-level attributes were found to be significantly correlated with UNCC in either developing or developed economies. In general, the results of these studies indicate that IFRS(Marzuki and Wahab, 2018, Barhamzaid, 2019, Hao et al., 2019), ownership structure(Liu, 2019, Aladwey, 2021), board characteristics(Ahmed and Duellman, 2007, Marzuki et al., 2016, Nasr and Ntim, 2018, El-habashy, 2019), financial leverage(Ahmed and Hussainey, 2017), accounting regulations, litigation, and taxation(Qiang, 2007, Lara et al., 2009, Isgiyarta and Yulianto, 2018) are significantly related to UNCC. Qiang (2007) reveals that firms minimize tax cost by applying unconditional conservatism. It delays the recognition of earnings while hastening the recognition of losses, which decreases the present value of taxes in a profitable organization.Lara et al. (2009)find that litigation, taxation, and accounting regulation induce UNCC in the USA. They discover that in particular situations, taxation and accounting regulation generate incentives for managers to switch earnings from a high tax period to a low tax period with less public scrutiny. On the other hand, Isgiyarta and Yulianto (2018) argue that excessive tax payments reduce net asset value and limit investment prospects. To avoid a decrease in asset and investment value reporting, management tends to reduce the application of UNCC. Thus, we hypothesise that the level of UNCC is significantly related to tax growth.

Watts and Zimmerman (1990) argue that the theory of political costs explains the problems of accounting regulation resulting from a conflict of interest between the regulatory authority and the organization. Lara et al. (2009) claim that the larger and more complicated a firm's operations, the more accounting regulations that will be met. Thus, management seeks to decrease earnings to avoid accounting regulation problems related to the financial statements. Regulators prefer UNCC because it detects earnings declines before negative information announced, whereas significant negative shocks detected after negative information occurs are more likely to raise problems for regulators(Qiang, 2007). This may help avoid a global financial crisis. Firms prefer to apply conservative accounting practices to avoid regulatory interference because they understand the regulators' intention to promote unconditional conservatism(Lara et al., 2009). Thus, we hypothesize that the level of UNCC to be significantly correlated with accounting regulation.

To fully understand why firms from one country are more conservative than firms from other countries, researchers need to explore both firm and country attributes, as firm attributes alone are incapable of explaining why firms from one country are more conservative than firms from other countries(Dong and Stettler, 2011). Several country-level attributes are investigated in international studies to explain differences in conservatism across countries, including a nation's regulatory and political environment(Bushman and Piotroski, 2006, Kung et al., 2008), social and accounting values(Salter et al., 2013), Economic and financial development(Gaio, 2010), religiosity differences(Bjornsen et al., 2019), and national culture(Kanagaretnam et al., 2014, Zeghal and Lahmar, 2018, Guermazi and Halioui, 2020, Wronski and Klann, 2020). However, most cross-country studies focus on conditional conservatism.

Early studies have shown that countries with higher legal protection and enforcement mechanisms require firms to adopt more timely loss recognition standards (Basu, 1997, Salter et al., 2013). Litigation issues in these countries are high, which encourages firms to apply a higher level of conservative accounting compared to firms in a loose legal environment(Ball et al., 2000). The level of government corruption is considered a legal aspect that may influence the quality of financial reports and the level of conservatism. In a similar vein, Salter et al. (2013) point out that UNCC is an institutional phenomenon that is positively associated with Gray's accounting value of conservatism. According to the findings, the UNCC is significantly correlated with creditor rights and corruption level, while it is negatively correlated with the rule of law and investor protection index. Additionally, conditional conservatism is significantly related to the rule of law and investor protection. On the other hand, Ball et al. (2008) found no significant correlation between UNCC and institutional variables in a sample of 22 countries. Furthermore, Ball et al. (2008) argue that UNCC has no effect on debt or equity markets and is ineffective in financial markets.

The nation's cultural values may substantially affect the level of UNCC. Culture was defined by Hofstede (1984) as "the collective programming of the mind which distinguishes the members of one group or society from those of another". It is considered as an important factor that explains the difference in the level of conservatism among countries because it affects managers' behavior(Salter et al., 2013). It is believed that culture affects the way managers think, assess, and make decisions(Guermazi and Halioui, 2020). Gray (1988) suggests that national culture may affect financial reporting practises such as conservatism. Gray (1988) directly attributes four accounting values, namely uniformity, professionalism, secrecy, and conservatism, to national cultures derived from Hofstede (1984) cultural dimensions. He contends that countries with a high level of uncertainty avoidance and low levels of individualism would rank relatively high on the accounting values of conservatism. Hofstede (2001) supports these results and suggests that the more judgement a transaction needs, the more it is influenced by cultural differences and thus business practises vary among countries. In a similar vein, Zeghal and Lahmar (2018) contend that UNCC is influenced by power distance. Ball et al. (2000) investigated differences in the level of conservatism across seven nations and concluded that a nation's level of conservatism may differ due to institutional differences. In contrast to code law countries, the results showed that market news is quickly reflected in share prices for firms operating in common-law countries. Doidge et al. (2007) believe that corporate governance differs widely among firms and countries. However, until now, the relationship between the quality of governance and UNCC has not been investigated.

Several international accounting studies used pooled data and OLS to test predicted relationships at multiple levels and did not consider the methodological limitations of the aggregation and disaggregation methods(Khanna et al., 2004, Dong and Stettler, 2011). HLM is one method used for

correcting the measurement errors of the disaggregated OLS model. HLM is becoming increasingly popular in finance and accounting studies. It allows researchers to investigate hierarchical data in a single comprehensive model and assess variable dynamics at various levels.

To summarize, previous research indicates that UNCC is influenced by firm and country attributes. However, as far as the researchers' knowledge, most studies use traditional OLS methods in the analysis, which underestimate standard errors. Furthermore, the international literature is still limited to identifying the determinants influencing UNCC on a firm- or country-level basis separately, with far less attention paid to adding additional levels to the analysis and their relative importance. One notable exception is the Gaio (2010) study, which investigates the relative importance of firm, industry, and country attributes in analysing financial reporting quality in 38 countries. Gaio (2010) study differs in three folds. First, this study employs HLM to simultaneously estimate firm and country-level UNCC determinants, whereas Gaio (2010) uses cross-sectional regression. Second, a much wider sample of 55 developing and developed countries is employed in this study. Finally, this study focuses on UNCC, whereas Gaio (2010) focuses on an aggregate financial reporting quality score that includes conditional conservatism. The following hypotheses are proposed based on the preceding arguments.

H1: The level of unconditional conservatism varies significantly across countries.
H2: Firm attributes are the major determinant of variation in the UNCC globally.
H3: The firm's attributes significantly affect the variation in UNCC.
H4: The country's attributes significantly affect the variation in UNCC.

Research methodology

Sample and data

This study examines the levels and determinants of UNCC in 55 countries. This broad sample helps us measure firm and country effects on accounting conservatism. The sample is constructed as follows. First, countries are selected with a focus on worldwide coverage. Second, in line with previous studies, financial institutions are excluded as they follow different reporting rules(Guermazi and Halioui, 2020). Third, all firms with missing data are deleted. The final sample covers 16,269 firm-year observations for 5470 firms (Level 1) across 55 countries (Level 2) from 2017 to 2019 as shown in table 1. This large sample is important for multi-level analysis and accurate inference generation. In this analysis, the county clusters are unbalanced, which requires the use of an iterative numeric procedure as maximum likelihood and the use of large samples of level 2 to prevent an inefficient estimate from being produced(Dong and Stettler, 2011).Every year, continuous variables were winsorized at the 1st and 99th percentiles to reduce the negative impact of outliers.

Data on firms was gathered from the Thomson Reuters Eikon database, while data on countries was gathered from the Economic Freedom of the World (EFW), the International Country Risk Guide Researchers Dataset (ICRG), and the Thomson Reuters DataStream database. Prior to conducting analyses, Templeton (2011) uses a two-step approach to normalise the variables to reduce the impact of outliers on the regression results and non-normality of study variables.

Variables Measurement
Dependent Variable

A widely used measure in the literature for capturing UNCC is the Givoly and Hayn (2000) accrual-based measure. It is an accounting measure based on the persistence use of negative accruals(Barhamzaid, 2019, Aladwey, 2021). It is measured as income before extraordinary items less operating cash flow plus depreciation expense scaled by lagged assets and averaged over a 3-year period, then multiplied by negative one. Higher UNCC is a sign of a higher level of UNCC. The main reason is that conservatism attempts to defer gains and accelerate losses, which leads to persistently negative earnings. An average of three years ensures a reduction of the consequences of temporarily large accruals, as accruals attempt to reverse in one to two years. Table 1 presents the frequency distribution and mean values of UNCC by country, with regional comparisons. A higher mean implies a higher level of UNCC. The mean value of UNCC ranges from 194 to -1005. Europe has the highest UNCC score at 279, with a standard deviation of 441. Italy (mean=514) is the most conservative country, followed by Spain (mean=519) and Germany (mean=509) as shown in Table 1.

Table 1 Sample Description

Country	Frequency	Percent	Unconditional Conservatism (UNCC)	
			Mean	SD
Argentina	118	.7	34.8	664.9
Austria	84	.5	478.4	221
Bangladesh	126	.8	-69.4	793.6
Belgium	111	.7	466.3	237.2
Bosnia and Herzegovina	96	.6	414.6	296.7
Brazil	371	2.3	120.7	309.8
Bulgaria	161	1.0	392.2	259.5
Canada	491	3.0	283.9	284.6
China	1134	7.0	35.7	346.7
Croatia	132	.8	91.7	386.6
Cyprus	94	.6	160.9	345.7
Denmark	147	.9	42.8	373.5
Egypt	313	1.9	143.2	613
Finland	173	1.1	502.3	212.8
France	493	3.0	487.4	195.6
Germany	468	2.9	509.0	197.4
Greece	242	1.5	373.7	164.6
Hong Kong	203	1.2	119.1	412.1
India	751	4.6	-460.4	589.7
Indonesia	168	1.0	-641.5	1158.2
Italy	344	2.1	514.8	194.1
Japan	1758	10.8	-634	388.7
Jordan	156	1.0	403.8	228.2

Kenya	92	.6	-277.8	821.9
Kuwait	93	.6	506.9	248.6
Macedonia	84	.5	-155.7	593.5
Malaysia	258	1.6	204.7	319.4
Mexico	228	1.4	-230.7	329.6
Morocco	69	.4	-123.6	316.6
Netherlands	143	.9	446.4	232.6
Nigeria	168	1.0	-642.8	909.1
Norway	114	.7	12.1	376.5
Pakistan	297	1.8	-43.2	937.6
Philippines	78	.5	-75.3	700.7
Poland	506	3.1	131	336.6
Republic of Serbia	116	.7	-216.6	785.8
Romania	139	.9	306.7	390.1
Russia	398	2.4	-199.5	726.9
Saudi Arabia	258	1.6	71.6	265
Singapore	386	2.4	316.4	322.5
South Africa	376	2.3	-107.8	390.2
South Korea	384	2.4	-1005.1	677.1
Spain	230	1.4	511.3	227.1
Sri Lanka	363	2.2	-238.1	878.6
Sweden	378	2.3	129.6	565.1
Switzerland	229	1.4	466.7	192.1
Taiwan	351	2.2	-228.1	501.4
Thailand	533	3.3	-214.9	551.6
Tunisia	81	.5	289.2	294.7
Turkey	608	3.7	171.7	400.8
United Arab Emirates	84	.5	234.2	329.9
United Kingdom	204	1.3	466.4	212.9
United States of America	242	1.5	348.9	168
Vietnam	537	3.3	-459.4	1612.8
Zimbabwe	107	.7	-789	774.2
Total	16269	100		
Classification by region				
Africa	893	5.5	-272	688
America	1450	8.9	151	382
Asia	7328	45	-309	767
Europe	5694	35	279	441
Middle east	904	5.6	213	444

Independent Variables

Firm-level Variables

Following the existing literature, several attributes were used at the firm level, such as debt contracting, firm size, sales growth rate, profitability, tax growth rate, and accounting regulation(Lara et al., 2009, Ahmed and Hussainey, 2017, Isgiyarta and Yulianto, 2018, Salehi and Sehat, 2019). Table 2 summarises firm-level attributes and descriptive statistics. The sample mean values are 1.6607 for leverage, 8.4341for firm size, 1.3077 for sales growth 0.0211 for ROA, and 2.4352 for tax growth. The table shows that there is no multicollinearity where VIF was less than 10 and tolerance greater than 0.2. Kolmogorov-Smirnova p-value> 0.05, which indicates that data is normally distributed. In addition, the skewness is less than 3 and kurtosis is between -2 and 2. The deviation is high between firms in tax growth and market to book value per share, where the standard deviation is 192 and 67 respectively. Table 3 presents Pearson correlations among the firm level variables and the dependent variable. Firm-level correlation absolute values range from 0.009 to 0.305. The low correlation values imply that each variable captures different aspects of firm characteristics. The highest correlation value is between ROA and leverage (about .305). The second-highest correlation is between ROA and tax growth (about .265). The UNCC is significantly correlated with all the firm-level variables.

Table 2: Descriptive statistics for Firm Level Variables

Variables	Tolerance	VIF	Mean	Std. Deviation	Skewness	Kurtosis
LV	.794	1.260	1.6607	2.79095	.002	-.016
SIZ	.858	1.165	8.4341	.92079	.003	-.013
SGR	.885	1.130	1.3077	50.21981	.001	-.017
ROA	.684	1.461	.0211	.44337	-.002	-.013
TGR	.897	1.115	2.4352	192.96049	.000	-.014

LV : Total Debt to Total equity used as a proxy to Loan Contract(Qiang, 2007), used as a control variable
SIZ: Log of total asset equity used as a proxy to firm size, used as a control variable
SGR: Sales growth ratio and used as a proxy to accounting regulation(Ahmed et al., 2002)
ROA: Return on assets and used as a proxy to firm growth and used as a control variable
TGR: Tax growth ratio

Table 3: Pearson Correlation for Firm Level Variables

Variables	LV	SIZ	SGR	ROA	TGR	UNCC
LV	1					
SIZ	.259**	1				
SGR	-.009	.105**	1			
ROA	-.305**	.179**	.259**	1		
TGR	-.069**	.074**	.243**	.265**	1	
UNCC	.037**	-.053**	.051**	-.183**	-.063**	1

Significance Level: p<0.05**

Country level Variables

Sethi and Elango (1999) try to incorporate various factors in the sense of the country-of-origin effect (COE) which reinforce competitive advantage. COE consists of three elements, institutional/cultural factors, national policies, and economic factors. This study employs variables under each element. Regarding the institutional factors, quality of governance is used. Regarding national policies, socioeconomic conditions are used, and for economic factors, the country level of economic freedom is used. These variables are used in a wide range of literature.

The country-of-origin effect (COE) reinforces competitive advantage, and Sethi and Elango (1999) attempt to incorporate various factors. Institutional/cultural factors, national policies, and economic factors make up the three components of COE. Variables are used in this study for each of the elements. The quality of governance is employed in relation to institutional factors. For national policies, socioeconomic conditions are taken into consideration, and for economic factors, the degree of economic freedom a country enjoys is taken into consideration. Variables such as these are found in a wide range of literature.

Quality of governance (Gov)

The institutions that govern a country's economic, social, and political relations can have an impact on business activities and reporting quality. Corporate governance reflects cultural, funding, ownership, and legal origin differences. It differs across institutional contexts and has an impact on what firms report. Little attention has been paid to the relationship between country governance and accounting conservatism. Prior research has focused primarily on firm-level corporate governance issues such as audit quality and/or board of director characteristics (Ahmed and Duellman, 2007, Marzuki et al., 2016).

We anticipate that the level of UNCC will be associated with the country's governance quality, implying that high-quality financial statements will be in high demand. This study constructs a principal component of six ratings in the Worldwide Governance Indicators (WGI): Voice and Accountability, Government Effectiveness, Regulatory Quality, Rule of Law, Political Stability and Absence of Violence, and Control of Corruption. The WGI gives a rating between 0 and 1 for each category.

Economic, social, and political interactions are governed by a country's institutions, which can have an impact on business operations and reporting quality. Culture, financing mechanisms, ownership formats, and legal roots all influence corporate governance. It varies depending on the institutional context and has an impact on what firm's report. Government effectiveness is also used to assess the effectiveness of government in conducting public relations and the quality of public service. High score is given to a government that is more successful. The freedom of speech and incorporation of citizens in the decision-making process and governance system are measured by voice and accountability. A high score increases the efficacy of growth and governance policies by making them more inclusive. Absence of violence and political stability assess the likelihood of violence as well as unpredictable changes in government. The higher the score, the lower the risk and, the higher the governance quality. Citizens' trust and respect for political and judicial institutions is measured by the rule of law. A higher score indicates a greater respect for the rule of law. Control of corruption conveys the extent to which public action relating to the rules and functioning of government administration promotes corruption. Countries with better corruption control receive a higher ranking. Regulatory quality assesses the quality of governance in terms of creating an environment conducive to private-sector development. Countries with better regulation receive a higher ranking. The data is collected from the databases of the World Bank (World Governance Indicators -

WGI).

Exploratory Factor Analysis (EFA) is a technique used to explain the covariant relationships between the observed variables and the unobserved variable (factor). It is employed as a variable reduction technique to create a more informative governance construct that can be used to examine its relationship with the level of accounting conservatism(Hair, 2010). The observed variables in EFA are a linear combination of the unobserved variables(Dima et al., 2015). The assumptions for exploratory factor analysis were satisfied and the minimum amount of data for factor analysis was fulfilled(Comrey and Lee, 1992).

The factor can be expressed as a linear combination of response variables as follows:

QG= a1X1 + a2X2 + a3X3+ a4X4 + a5X5 + a6X6 ....Eq. (5)

Where a1, a2, a3, a4, a5 and a6 are the loadings of response variables with the factor; X1, X2, X3, X4, X5 and X6 represents the six governance ratings in the WGI. Z is the factor which represents the governance indicator.

Socioeconomic condition (Sec)

It is an evaluation of the socioeconomic forces that may limit government action or drive popular discontent. There are three subcomponents (consumer confidence, unemployment, and poverty) that make up the risk rating, each with a maximum of four points and a minimum of zero. 4 points = Very Low Risk, 0 points = Very High Risk. The data is collected from the International Country Risk Guide Researchers Dataset (ICRG).

Economic freedom (Efr)

Economic freedom is every human being's fundamental right to manage his own work and wealth. A free society enables people to communicate, create, purchase, and trade as they like. To safeguard and preserve freedom itself, governments in economically free countries allow free movement of workers, capital, and goods. It is measured based on four broad economic freedom types: Open Markets, Government Size, Rule of Law, and Regulatory Efficiency. It is a composite indicator derived from the Heritage Foundation's (2016) economic freedom variables (www.heritage.org/index).Increased economic freedom means less financial and economic regulatory oversight.

Multilevel Modeling

This research explores the variation of the level of conservatism (unconditional) among firms using multi-level modelling (MLM). The popularity of MLM in statistical techniques applied by social science researchers is growing. It is used in this research due to the nested structure of the data as firms are nested within countries and annual measures of conservatism are available for each firm.MLM has a significant advantage over univariate analysis such as multiple regression in that it does not demand independence of observations at all stages within the model, allowing for different error patterns at each stage. This model for an unbalanced sample is also very robust(Ndubisi et al., 2015). Heck and Thomas (2015) mention that the combination of group and individual effects at the same unit of analysis may lead to the

underestimation of standard errors and, thus, inaccurate assumptions about the importance of the parameters of the model.

A two-level model is used to answer the research question. The first model represents the variance components model (null model) that splits the variation in the level of UNCC into its within and between-country components. The objective is to investigate whether there is a significant variation in the level of accounting conservatism among countries and is represented as:

$$Y_{fc} = \lambda_{0c} + \varepsilon_{fc} \quad \text{..} \quad \text{Eq. (1)}$$

where λ_{0c} is the intercept; f and c subscript represent firm and country, respectively; ε_{fc} represents firm variation in level of unconditional conservatism within countries (level 1); Y_{fc} is the level of UNCC of the fth firm in the cth country. Between countries variance in the level of UNCC can be displayed as

$$\lambda_{0c} = \gamma_{00} + \mu_{0c} \quad \text{...Eq. (2)}$$

Where μ_{0c} represents the between-countries variation in the level of conservatism and γ_{00} is the intercept which represents the average level of accounting conservatisms across countries (level 2) The λ_{0c} is simultaneously modelled as an independent variable varying randomly around a country's mean.
Through substitution, the null model can be displayed as:

$$Y_{fc} = \gamma_{00} + \mu_{0c} + \varepsilon_{fc} \quad \text{...Eq. (3)}$$

The below model provides an estimation of the amount of variation in the dependent variable explained by the country-level attributes, Intra Class Correlation Coefficient (ICC). The ICC is calculated before creating an MLM. If it is greater than 10%, the traditional linear model is inapplicable because the assumption of independent observations is violated(Ndubisi et al., 2015). ICC is the ratio of the between-countries variation to the total variation and can be displayed as

$$ICC = \sigma^2_{\mu fc} / (\sigma^2_{\mu fc+} \sigma 2_{\varepsilon fc}) \quad \text{...Eq. (4)}$$

Next, to examine the impact of firm level variables on conservatism, the following firm-Level (Level 1) Random Intercept Model is formulated:

$$Y_{fc} = \lambda_{0k} + \mu_1 LV_{fc} + \mu_2 SIZ_{fc +} \mu_3 SGRO_{fc +} \mu_4 ROA_{fc +} \mu_5 TGRO_{fc +} \mu Year_+ \varepsilon_{fc}$$
$$\lambda_{0c} = \gamma_{00} + \mu_{0c} \quad \text{...Eq. (5)}$$

Where μ_1, μ_2, μ_3, μ_4 *and* μ_5 are the regression coefficients for the firm-level independent variables. LV is the Leverage computed as total debt to by total equity; SIZ is the firm size computed as the natural logarithm of total assets; SGRO is the sales growth computed as Sales in year t minus sales in year t-1 deflated by sales in year t-1; ROA is the Return on assets computed as net income before extraordinary items divided by total assets; TGRO is the tax growth computed as income tax in year t minus income tax in year t-1 deflated by income tax in year t-1.Furthermore, µYear is the year fixed effect which is included to control for any unobserved time varying effect that may affects the level of UNCC across firms.LV, SIZ, and ROA are used

as control variables to detect firm characteristics that have previously been considered as key factors influencing the level of UNCC(Lara et al., 2009, Ahmed and Hussainey, 2017).

A comparison of the value of -2*log-likelihood in the null model and level 1 model helps in evaluating the explanatory power of the introduction of firm level variables in the model. -2*log-likelihood represents the unexplained variation in the level of UNCC. A chi-squared test is used to test whether the variance differences between the two models is statistically significant or not.

Next, the country level variables are added to explain the variability in intercepts across countries. The following level 2 model is formulated:

$Y_{fc} = \lambda_{0c} + \mu_1 LEV_{fc} + \mu_2 SIZ_{fc} + \mu_3 SGR_{fc} + \mu_4 ROA_{fc} + \mu_5 TGR_{fc} + \mu Year + \varepsilon_{fc}$

$\lambda_{0c} = \beta_{00} + \beta_{01} sec_c + \beta_{02} Gov_c + \beta_{03} Efr_c + \mu_{0c}$ ....Eq. (6)

Where β_{01}, β_{02}, and β_{03} are the regression coefficients for the country-level independent variables. Sec is the country's socioeconomic condition; Gov is the country's quality of governance; and Efr is the country's level of economic freedom. Model 6 suggests that country level variables will impact the variability in the level of UNCC between countries. The control variables assist in evaluating the cumulative effect of country variables on the level of UNCC(Kanagaretnam et al., 2014).

Empirical Result and Discussions

In this section, we first investigate the validity of the governance construct as well as the relative importance of firm and country attributes in clarifying the global difference in the level of UNCC. Following that, we look at how the firm's attributes (i.e., the level of accounting regulations and the tax growth rate) affect reported earnings. We also examine governance quality, socioeconomic conditions, and economic freedom at the country level. Finally, the robustness of the results was investigated.

Exploratory Factor Analysis (EFA)

EFA is employed to create a more informative governance construct that can be used in the regression model. The correlation between variables was checked before EFA and the results revealed a significant correlation at 0.05 level between all observed variables that comprise the governance index. This inspection provides a satisfactory premise for applying an empirical examination of the suitability of factor analysis on both an overall basis and for each variable. In addition, the adequacy of the sample was checked using the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's Test of Sphericity. Kaiser-Meyer-Olkin Measurement of Sampling Adequacy varies between 0 and 1, and values closer to 1 are better. A value of .6 is a suggested minimum. The results show that the KMO index was 0.892 and the closer the value to 1, the better the adequacy of the sample. In addition, Bartlett's Test of Sphericity was significant ($\chi2$ (15) = 177287, p < .000), which means that the correlation matrix is not an identity matrix.

Principal Component Analysis is used to construct the factors that account for the maximal amount of variance in the observed variables. Table 3 shows communities, which is the variance of observed variables accounted for by the governance index. It shows that .656, .793, .927, .957, .965, and .954 of variance in Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption respectively were explained by

the factor extracted. This shows that the extracted factor interprets a high percentage of the variables' variance.

Table 4 Communalities, Component, and score coefficient Matrix

	Communalities	Component	Score Coefficient
	Extraction	1	1
Voice and Accountability(X1)	.656	.810	.154
Political Stability and Absence of Violence/Terrorism(X2)	.793	.891	.170
Government Effectiveness(X3)	.927	.963	.183
Regulatory Quality(X4)	.957	.979	.186
Rule of Law(X5)	.965	.982	.187
Control of Corruption(X6)	.954	.977	.186
Kaiser-Meyer-Olkin .892	Bartlett's Test of Sphericity chi-square= 177287.458 df=15 Sig. = .000		

Table 4 shows the score and correlation coefficient (loadings) between the governance indicator factor and the observed variables. The highest correlated variable with the extracted factor was Rule of law where factor loading was 0.982. All the variables were positively correlated to the QG factor. The results of the EFA suggested that the six variables are dimensions of the governance index (Gov). It can be presented as:

Gov= .154X1+.170X2+.183*X3+.186*X4+.187X5+.186X6

Table 5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.253	87.542	87.542	5.253	87.542	87.542
2	.419	6.983	94.525			
3	.222	3.703	98.228			

Extraction Method: Principal Component Analysis.

Table 5 shows the total variance explained. The factor has a high eigenvalue (5.253) and explained variance (87%).According to Kaiser (1960), only factors with eigenvalues more than 1 must be used for analysis. Thus, only one factor will be used for the quality of governance construct.

Multilevel Analysis for unconditional conservatism

Table 6 Results of the multilevel linear models for UNCC

	Null Model	Firm Level Model	Country Level Variable
Intercept	61.01	237.2***	868.9***

LEV		-13.4***	-13.17***
SIZ		-33.06***	-34.2***
SGRO		0.87***	0.87***
ROA		-305***	-306***
TGRO		-0.0466*	-.044*
Gov			254***
Efr			-13.9***
Sec			26.6*
$\sigma^2_{\varepsilon tk}$	303329***	276088***	276241***
$\sigma^2_{\mu kj}$	137280***	146675***	120854***
-2 Restricted Log Likelihood	251753	240612	238873
$\chi 2$			
Difference between Null model and level 1 model	Cprobability df1 =1	11141***	
Difference between level 1 and level 2 model		Cprobability df1 =1	1739 ***

Level of significance: p<0.1*, p<0.05**, p<0.01***

Regarding the null model, Table 6 shows significant variance in the level of UNCC across countries (137280, wald Z=5.1, p< .001). This result is consistent with H1 that the level of UNCC varies significantly across countries. Furthermore, the intra-class correlation is 0.311([137280/ (137280+ 303329)); thus, approximately 31% of the total variability in the level of UNCC resides between countries.The ICC is greater than 10%, implying that the traditional linear model is inapplicable and HLM is appropriate method to be used in the analysis(Ndubisi et al., 2015). Moreover, the ICC indicates that firm attributes are the principal cause of the variation in UNCC globally and that firm observations are not assigned to countries at random, but rather to a specific country based on country-specific contextual attributes. As a result, an HLM can be used to explain this variability in intercepts between (Wald Z = 5.138, p < .000) and within countries (Wald Z = 90.037, p < .001). This result is consistent with H2 that firm attributes are the major determinant of the variation in UNCC globally. The result is in line with Gaio (2010) study who discovered that firm attributes have greater explanatory power than country attributes in explaining firm-level earnings quality.

Regarding the Level 1 model, the change in -2 log likelihood is an indicator of improvement in the fitness of the model when two models are compared. Table 5 shows that the -2 log likelihood decreased by 11141, which is statistically significant. We deduce that the level of UNCC varies significantly among firms. This suggests that firm variables reduce the unexplained variation in the UNCC level. The result is in line with both Dong and Stettler (2011) and Gaio (2010) studies who find that both firm and country attributes explain the variation in earnings reported.

The estimated coefficient on SGRO shows a positive and significant (0.87) effect on the level of UNCC, indicating that firms with more accounting regulations are timelier in reporting negative events

compared with reporting positive events. The result is consistent with the political costs theory, which shows that higher accounting regulation results in a conflict of interest between the firm and the regulatory authority. Thus, management is trying to reduce earnings to avoid accounting regulation problems related to the financial statements.

The estimated coefficient on TGRO shows a negative and significant (-0.046) effect on the level of UNCC, indicating that firms with a high tax growth rate slow recognition of negative events in earnings more slowly than firms with a low tax growth rate. The main cause of the negative and significant results may be due to the management intention to reduce problems between a firm and tax authorities and to reduce the difference between book and taxable income, thus reducing deferred tax liabilities. These findings are inconsistent with those found by Isgiyarta and Yulianto (2018) who find that accounting regulation and tax growth have no significant effect on UNCC. The findings, on the other hand, are in line with the results of Lara et al. (2009) study, which found that both tax growth and accounting regulations induce UNCC.

The Firm level variables reduce the residual (within-countries) variability (i.e., from 303329 in the null model to 276088 in the Level 1 model). This reduction in variance between the two models can be used to calculate a decrease in R^2 estimate for the within and between countries portion of the model. It can be calculated as follows:

$$M1\sigma 2\epsilon tk - M2\sigma 2\epsilon tk / M1\sigma 2\epsilon tk$$

where M1 refers to the null model and M2 refers to the Level 1 model. For the within-countries portion, this is calculated as (303329 – 276088= 27241/303329 = 0.09). This suggests that firm level variables account for about 9% of the within-country variability in UNCC level. However, even after controlling for firm level variables within countries, a statistically significant amount of variation in outcomes remains both within and between countries. This suggests that more predictors can be added to explain this residual variability in intercepts. This result is consistent with H2 which states that firm attributes significantly affect the variation in the level of UNCC. This result is consistent with the study of Lara et al. (2009) who found that taxation and accounting regulations induce UNCC. While this finding contradicts the findings ofSalehi and Sehat (2019) , which concluded that debt maturity has no effect on conservatism. Moreover, Gaio (2010) finds that firm size has a positive impact on earnings quality.

Regarding the level 2 model, the -2-log likelihood decreased by 1739, which is statistically significant. This means that country-level variables reduce between-country variability in the level of UNCC from 146675 in the level 1 model to 120854 in the level 2 model, accounting for approximately 17% of the variance (146675–120854/146675= 0.176).

Consistent with our prediction, the coefficient of Gov in table 6 is positive (254) and significant, indicating that firms residing in well-governed countries recognise earnings declines more quickly than lower governance quality countries. The findings support the agency theory, suggesting that countries with good governance quality are more likely to use conservative accounting as a complementary agency control device to reduce agency conflicts and improve managerial control.This result is consistent with Lee and Chen (2016) studies, which suggest that the quality of governance has a positive correlation with accounting conservatism. Additionally, consistent with our prediction, the coefficient of SEC is positive (26.6) and significant, indicating that recognition of earnings declines is timelier than recognition of earnings increases when socioeconomic status is higher. This indicates that socioeconomic conditions are pivotal forces that drive accounting conservatism. This finding agrees with the results of Gaio (2010) who finds that the

economic condition significantly affects the earnings quality. Finally, the coefficient of Efr is negative (-13.9) and significant, indicating that firms residing in countries with more economically free markets slow recognition of negative events in earnings relative to firms residing in countries with less economically free markets. Manawadu et al. (2019) find evidence that both investment and fiscal freedom reduce the level of accounting conservatism. On the other hand, Bushman and Piotroski (2006) conclude that institutional private enforcement of securities legislation has no effect on accounting conservatism. Moreover, Ball et al. (2008) found no significant correlation between UNCC and institutional variables.

The findings of the study are consistent with H4, which suggests that country level attributes significantly affect the level of UNCC.

Robustness tests

To strengthen the evidence that firm and country attributes affect the level of UNCC, a robustness test is performed, and the results are briefly reported in this section. The sample for the study includes 33 developing countries and 22 developed countries. As a result, we excluded developed countries from the study to ensure the validity of the findings. Table 7 demonstrates that the main previous findings remain consistent and robust. Firm attributes have incremental predictive value above the unobserved heterogeneity of the entire country. Firms with high levels of accounting regulations reflect negative events in reported earnings faster than firms with low levels of accounting regulations. Furthermore, firms with a high tax growth rate slow the recognition of negative events in earnings more slowly than firms with a low tax growth rate. At the higher level, firms residing in countries with high governance quality and high socioeconomic conditions reflect negative events in reported earnings faster than firms residing in countries with low governance quality and low socioeconomic conditions. Furthermore, firms residing in countries with more economically free markets slow the recognition of negative events in earnings relative to firms residing in countries with less economically free markets.

Table 7 Results of the Robustness test excluding developed countries

	Null Model	Firm Level Model	Country Level Variable
Intercept	-42	106	712*
LEV		-20***	-19***
SIZ		-29***	-31***
SGRO		1.23***	1.2***
ROA		-464***	-466***
TGRO		-0.05*	-.049*
Gov			316***
Efr			-13.4**
Sec			49**
$\sigma^2_{\varepsilon tk}$	444828***	399239***	401093***
$\sigma^2_{\mu kj}$	100104***	98901***	83464***
-2 Restricted Log Likelihood	142690	134964	133219

χ^2			
Difference between Null model and level 1 model	Cprobability df1 =1	7726***	
Difference between level 1 and level 2 model		Cprobability df1 =1	1745 ***

Level of significance: p<0.1*, p<0.05**, p<0.01***

Conclusion

The objective of this study is to investigate whether the characteristics of firms and countries, as well as their relative importance, influence the level of UNCC. The primary goal of this study is to better understand the nature of financial reporting incentives generated by firm and country attributes in terms of accounting conservatism. To explain the global diversity of accounting practices, a two-level attribute hierarchy is employed. The findings show that firm and country attributes complement one another in providing motivation that influences managerial behavior, which in turn influences the quality of earnings reported. Firm attributes, on the other hand, are the major determinant in explaining cross-country variation in the level of accounting conservatism.

After controlling for firm size, profitability, and debt level, firms with high levels of accounting regulations reflect negative events in financial reports faster than firms with low levels of accounting regulations. Furthermore, firms with a high tax growth rate recognise the negative events in financial reports more slowly than firms with a low tax growth rate. At the higher level, firms residing in well-governed countries and high socioeconomic conditions reflect negative events in financial reports faster than firms residing in countries with lower levels of governance and socioeconomic conditions. Furthermore, firms residing in countries with more economically free markets slow the recognition of negative events in financial reports relative to firms residing in countries with less economically free markets and low socioeconomic conditions. These findings underline the significance of analyses that integrate firm- and country-level attributes to fully understand the state of UNCC, not only in developing countries, but also in other comparable cases around the world.

The findings of this study support the agency theory, in which country-level governance quality influences the level of conservatism in financial reports, which in turn can reduce agency problems caused by information asymmetry among stakeholders and firms. This study provides insights into international accounting research in several ways. First, it contributes to the accounting literature on country effect by assessing the effect of a country's attributes on the level of UNCC. Second, this study focuses on the nonfinancial factors that affect accounting quality. Third, to the best of the author's knowledge, this is the first study that uses HLM to investigate the relative importance of firm and country attributes in affecting the level of UNCC.

This study contributes to a better understanding of the potential impact of firm and country attributes on financial reporting quality. The results reveal that the social and economic conditions of the country play an effective role in improving the quality of earnings information. Additionally, accounting regulations and tax growth play a vital role in affecting managers' opportunistic behaviors. The results

provide investors and policymakers with some insight into how the firm's and country's attributes may shape UNCC.

Nonetheless, there are several limitations to this study that point to future research directions. First, this study looks at the factors that influence UCC, but not conditional conservatism. Considering this, future studies should focus on conditional conservatism. Secondly, the study is confined to non-financial sectors. The factors influencing the UCC in the financial sector need to be examined in future research. Third, because the results are based on a sample of 55 countries over three years, they may not be generalizable to a larger group of countries or other time periods. Fourth, the endogeneity problem was not checked. Finally, this study examined the impact of governance, social and economic conditions. Other variables, such as environmental factors prevalent in the country, may also contribute to explaining differences in UCC levels.

References

AHMED, A. H. & HUSSAINEY, K. 2017. Is Egyptian corporate financial reporting becoming more conservative? *Journal of Financial Reporting.*

AHMED, A. S., BILLINGS, B. K., MORTON, R. M. & STANFORD-HARRIS, M. J. T. A. R. 2002. The role of accounting conservatism in mitigating bondholder-shareholder conflicts over dividend policy and in reducing debt costs. 77, 867-890.

AHMED, A. S. & DUELLMAN, S. 2007. Accounting conservatism and board of director characteristics: An empirical analysis. *Journal of Accounting and Economics,* 43, 411-437.

ALADWEY, L. M. A. 2021. The effect of equity ownership structure on non-conditional conservatism: an empirical study based on listed companies in Egypt. *Journal of Financial Reporting and Accounting*

BALL, R., KOTHARI, S. & ROBIN, A. 2000. The effect of international institutional factors on properties of accounting earnings. *Journal of accounting economics,* 29, 1-51.

BALL, R., KOTHARI, S. & ROBIN, A. 2000. The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics,* 29, 1-51.

BALL, R. & SHIVAKUMAR, L. 2005. Earnings quality in UK private firms: comparative loss recognition timeliness. *Journal of accounting and economics,* 39, 83-128.

BARHAMZAID, Z. A. 2019. Unconditional conservatism under the Chinese version of IFRS. *China Journal of Accounting Research,* 12, 395-409.

BASU, S. 1997. The conservatism principle and the asymmetric timeliness of earnings1. *Journal of accounting and economics,* 24, 3-37.

BASU, S. 2005. Discussion of "Conditional and UnconditionalConservatism: Concepts and modeling". *Review of Accounting Studies,* 10, 311-321.

BEAVER, W. H. & RYAN, S. G. 2005. Conditional and unconditional conservatism: Concepts and modeling. *Review of accounting studies,* 10, 269-309.

BJORNSEN, M., DO, C. & OMER, T. 2019. The influence of country-level religiosity on accounting conservatism. *Journal of International Accounting Research,* 18, 1-26.

BLOOM, R. 2018. Conservatism in accounting: A reassessment. *Accounting Historians Journal,* 45, 1-15.

BUSHMAN, R. M. & PIOTROSKI, J. D. 2006. Financial reporting incentives for conservative accounting: The influence of legal and political institutions. *Journal of accounting and economics,* 42, 107-148.

CHAND, P. 2012. The effects of ethnic culture and organizational culture on judgments of accountants. *Advances in Accounting,* 28**,** 298-306.

CHEN, L. H., FOLSOM, D. M., PAEK, W. & SAMI, H. 2014. Accounting conservatism, earnings persistence, and pricing multiples on earnings. *Accounting Horizons,* 28**,** 233-260.

COMREY, A. & LEE, H. 1992. Interpretation and application of factor analytic results. *Comrey AL, Lee HB. A first course in factor analysis,* 2**,** 1992.

DIMA, B., DIMA, S. M., NACHESCUA, M. & SACCONB, C. 2015. Professional autonomy and IFRSs adoption. *Accounting and Management Information Systems,* 14**,** 627.

DOIDGE, C., KAROLYI, G. A. & STULZ, R. 2007. Why do countries matter so much for corporate governance? *Journal of financial economics,* 86**,** 1-39.

DONG, M. & STETTLER, A. 2011. Estimating firm-level and country-level effects in cross-sectional analyses: An application of hierarchical modeling in corporate disclosure studies. *The International Journal of Accounting,* 46**,** 271-303.

EL-BANNANY, M. 2018. IFRS and Conditional Accounting Conservatism: An Empirical Study of Banks in Egypt and the UAE. *Corporate Ownership & Control,* 15**,** 220-230.

EL-HABASHY, H. A. 2019. The effect of corporate governance attributes on accounting conservatism in Egypt. *Academy of Accounting and Financial Studies Journal,* 23**,** 1-18.

FASB, F. A. S. B. 1980. Statement of financial accounting concepts No. 2: qualitative characteristics of accounting information. *Financ Acc Stand Board.*

GAIO, C. 2010. The relative importance of firm and country characteristics for earnings quality around the world. *European accounting review,* 19**,** 693-738.

GIVOLY, D. & HAYN, C. 2000. The changing time-series properties of earnings, cash flows and accruals: Has financial reporting become more conservative? *Journal of accounting economics,* 29**,** 287-320.

GRAY, S. J. 1988. Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus,* 24**,** 1-15.

GRAY, S. J., KANG, T., LIN, Z. & TANG, Q. 2015. Earnings Management in Europe Post IFRS: Do Cultural Influences Persist? *Management International Review,* 55**,** 827-856.

GUERMAZI, W. & HALIOUI, K. 2020. Do differences in national cultures affect cross-country conditional conservatism behavior under IFRS? *Research in International Business and Finance,* 52**,** 101171.

HAIR, J. F., BLACK, W.C., BABIN, B.J. AND ANDERSON, R.E. 2010. *Multivariate Data Analysis,* New York, Pearson.

HAO, J., SUN, M. & YIN, J. 2019. Convergence to IFRS, accounting quality, and the role of regional institutions: evidence from China. *Asian Review of Accounting.*

HECK, R. H. & THOMAS, S. L. 2015. *An introduction to multilevel modeling techniques: MLM and SEM approaches using Mplus,* Routledge.

HECK, R. H., THOMAS, S. L. & TABATA, L. N. 2014. Multilevel and longitudinal modeling with IBM SPSS. *Quantitative methodology series.* 2nd ed. New York: Routledge.

HOFSTEDE, G. 1984. Cultural dimensions in management and planning. *Asia Pacific journal of management,* 1**,** 81-99.

HOFSTEDE, G. 2001. *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations,* Sage publications.

ISGIYARTA, J. & YULIANTO, R. 2018. Determinants influencing conditional and non-conditional conservative accounting. *Academy of Accounting and Financial Studies Journal*.

KAISER, H. F. 1960. The application of electronic computers to factor analysis. *Educational psychological measurement*, 20, 141-151.

KANAGARETNAM, K., LIM, C. Y. & LOBO, G. J. 2014. Influence of national culture on accounting conservatism and risk-taking in the banking industry. *The Accounting Review*, 89, 1115-1149.

KHALIFA, M., OTHMAN, H.B. AND HUSSAINEY, K., 2016. Temporal variation and cross-sectional differences of accounting conservatism in emerging countries. *International Journal of Accounting, Auditing and Performance Evaluation*, 12, 45-69.

KHANNA, T., PALEPU, K. G. & SRINIVASAN, S. 2004. Disclosure practices of foreign companies interacting with US markets. *Journal of accounting research*, 42, 475-508.

KUNG, F. H. A., TING, C. W. & JAMES, K. 2008. Accounting conservatism in Greater China: the influence of institutions and incentives. *Asian Review of Accounting*.

LARA, J. M. G., OSMA, B. G. & PENALVA, F. 2009. The economic determinants of conditional conservatism. *Journal of Business Finance & Accounting*, 36, 336-372.

LEE, K.-C. & CHEN, Y. 2016. The Correlation between National Governance and Accounting Conservatism--A Case Study on the Main Countries of the World. *Journal of Accounting, Finance & Management Strategy*, 11.

LIU, S. 2019. The impact of ownership structure on conditional and unconditional conservatism in China: Some new evidence. *Journal of International Accounting, Auditing and Taxation*, 34, 49-68.

MANAWADU, I., AZMI, A. C. & MOHAMED, A. 2019. Moderating effect of IFRS adoption on FDI and conditional accounting conservatism in South Asia. *Journal of Accounting in Emerging Economies*.

MARZUKI, M. M. & WAHAB, E. A. A. 2018. International financial reporting standards and conservatism in the Association of Southeast Asian Nations countries: Evidence from Jurisdiction Corruption Index. *Asian Review of Accounting*.

MARZUKI, M. M., WAHAB, E. A. A. & HARON, H. 2016. Corporate governance and earnings conservatism in Malaysia. *Accounting Research Journal*.

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*.

NDUBISI, N. O., NATARAAJAN, R., ELANGO, B. & WIELAND, J. 2015. Impact of country effects on the performance of service firms. *Journal of Service Management*.

PELGER, C. 2020. The Return of Stewardship, Reliability and Prudence–A Commentary on the IASB's New Conceptual Framework. *Accounting in Europe*, 17, 33-51.

QIANG, X. 2007. The effects of contracting, litigation, regulation, and tax costs on conditional and unconditional conservatism: Cross-sectional evidence at the firm level. *The accounting review*, 82, 759-796.

RUCH, G. W. & TAYLOR, G. 2015. Accounting conservatism: A review of the literature. *Journal of Accounting Literature*, 34, 17-38.

SALEHI, M. & SEHAT, M. 2019. Debt maturity structure, institutional ownership and accounting conservatism: Evidence from Iranian listed companies. *Asian Journal of Accounting Research*.

SALTER, S. B., KANG, T., GOTTI, G. & DOUPNIK, T. S. 2013. The role of social values, accounting values and institutions in determining accounting conservatism. *Management International Review,* 53**,** 607-632.

SETHI, S. P. & ELANGO, B. 1999. The influence of "country of origin" on multinational corporation global strategy: A conceptual framework. *Journal of International Management,* 5**,** 285-298.

TEMPLETON, G. F. 2011. A two-step approach for transforming continuous variables to normal: implications and recommendations for IS research. *Communications of the Association for Information Systems,* 28**,** 4.

WATTS, R. L. 2003. Conservatism in accounting part I: Explanations and implications. *Accounting horizons,* 17**,** 207-221.

WRONSKI, P. G. & KLANN, R. C. 2020. Accounting Conservatism and National Culture. *Brazilian Business Review,* 17**,** 344-361.

ZEGHAL, D. & LAHMAR, Z. 2018. The effect of culture on accounting conservatism during adoption of IFRS in the EU. *International Journal of Accounting Information Management.*