Moderation effects of Transparency on Auditors' Reputation and Company Leverage: Evidence from Asia Pacific Countries

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Abstract: This study examines the moderation effects of transparency level on the relationship between auditors' reputation and company leverage in the Asia Pacific region. A total of 15,718 companies from the Asia Pacific region is tested using Ordinary Least Square. The results indicate a negative relationship between auditors' reputation and leverage, whilst a positive relationship between auditors' reputation and solvency. A negative moderation effect is documented for leverage, and a positive moderation effect for solvency in the main model, i.e., the Asia Pacific countries. Similar relationship is documented in the ASEAN, developing and developed countries. The main contribution of this study is the prominence of transparency level moderating the relationship between auditors' reputation, leverage and solvency in the Asia Pacific region, which may have practical implications to firm owners, investors and regulators.

Keywords: Auditor's reputation, leverage, solvency, transparency, Ordinary Least Square, Asia Pacific countries, ASEAN, developing and developed countries

INTRODUCTION

In the current era of corruption, corporate scandals and endless financial crises, the reputation of auditors as financial advisors has to a large extent been dented. Transparency International has identified transparency/corruption as a major problem faced by the world and its repercussions can be very painful for companies and economies at large. Endless financial crises over the past decade has also affected shareholders' wealth and survival of companies. Shareholders' wealth and long-term survival of companies is largely dependent on the capital structure of companies, (i.e., a company's leverage and solvency level), in addition to profitability and liquidity. It cannot be denied that auditors still play a pivotal role in supervising and advising management on the operational issues, including issues related to capital structure and long-term debt financing. In that context, this study attempts to re-examine the relationship between auditors' reputation and leverage of

companies (represented by debt to equity and solvency ratio) and the moderation effects of transparency on the abovementioned relationship in the Asia Pacific region. This will form the main motivation of the study.

Literature documents mixed findings on the relationship between auditors' reputation and firm performance. Reputable auditors present true and fair view of audited reports; giving reliable information on company performance to all stakeholders (Lennox, 1999, Siala, Adjaoud and Mamoghli, 2009; Sundarasen, 2013 and Suseno, 2013). These auditors are trusted in playing a dominant role in monitoring business and guiding clients on their performance. Auditors are also responsible to advise top management and board of directors on appropriate measures to be taken for the benefit of shareholders in the long-term. Contrary to the above, studies also suggest that there exist no relationship between reputable auditors and company performance (Iskandar, Rahmat and Ismail, 2010, Bulut, Cankaya and Er, 2009). There have been situations (case of Arthur Anderson), where, reputable auditors have placed personal benefit above reputation capital, thus contributing to corporate scandals (Moore, 2006). Similarly findings are documented by Reichow (2007) and Bazerman (2008); reputable auditors are usually hired at the firm's expense, whereby reputable auditors act to the interest of their clients in certain circumstances in order to fulfill clients' needs and self-interest. As stated above, most studies have predominantly examined the association between auditors' reputation and performance (specifically profitability) but none have examined the moderation effects of transparency on the relationship between auditor's reputation and leverage in the Asia Pacific region.

Thus, this study revisits the relationship between auditors' reputation (proxied by Big4 Auditors) and firms' leverage in the context of the Asia Pacific region, as there is a gap in exploring this important topic within the boundaries of institutional characteristics, i.e., the transparency level of a country. The moderation effects of the transparency level on the relationship between auditors' reputation and leverage is examined and will thus form the main contribution of the study. As further analysis, the dataset is classified and re-examined under 3 main categories; Association of Southeast Asian Nations (ASEAN), developing and developed countries within Asia Pacific. This is mainly because, countries in different legal and geographical origins have different legal framework and levels of regulatory execution and this may impact the relationship between auditors' reputation and leverage. A total of 15721 companies for the years 2013-2014 form the sample of this study and ordinary least squares regression (OLS) is employed for hypotheses testing.

The outcomes of this study indicate a negative relationship between auditors' reputation and debt to equity ratio in the Asia Pacific countries, ASEAN, developing and developed countries. In terms of solvency ratio, a positive relationship is documented in the main model and the developed countries only. As for the moderation effects, transparency level negatively moderates the relationship between auditors' reputation and debt to equity ratio, whilst a positive moderation effect is documented for solvency.

Based on the outcome, the main extension to the existing literature is the moderation effects of transparency level on the relationship between auditors' reputation and the leverage levels in the Asia Pacific countries. Practical implications can be extended to firm owners, regulatory bodies and government. It is further re-enforced that auditors' reputation plays a central role on the leverage levels of companies and this may assist firms in their consideration of auditor choice. Government and regulatory bodies should also undertake appropriate measures to ensure country-level transparency is restricted, and a more transparent and sustainable business environment is formed, thus contributing to high profitability to companies. This will ultimately have a positive impact on companies' leverage, long-term survival of companies and most importantly, maximizing shareholders' wealth.

The remainder of the paper is structured as follows. Section 2 discusses the hypotheses development. Section 3 presents the methodology and variables measurements. Section 4 presents the empirical results and discussion whilst section 5 concludes.

HYPOTHESES DEVELOPMENT

This section will briefly review the evolution of auditing firms, auditors' reputation, company leverage and solvency. Transparency is discussed from a general perspective as no formal literature is available on the effects of transparency on the relationship between auditors' reputation, firm leverage and solvency.

EVOLUTION OF AUDITING FIRMS

For over a century, the term 'Big 8' was used to define the eight largest audit firms in the United States. The term 'Big 8' was first reviewed in the Fortune magazine, which published an article entitled 'Certified Public Accountants' and ranked the eight 'newest profession of public accounting firms in year 1932 (Chatfield and Vangermeersch, 2014). The eight top accountancy firms then includes; Arthur Andersen, Arthur Young & Co., Coopers & Lybrand, Deloitte Haskins & Sells, Ernst & Whinney, Peat Marwick Mitchell, Price Waterhouse and Touche Ross. Initially, the accounting industry was stable and slow-growing with few competitors. Thereafter, the Big 8 accounting firms experienced one billion annual revenues in the 1980s and attracted more competitors to enter the industry (Chatfield and Vangermeersch, 2014). In order to narrow the market, achieve high revenue and gain competitve advantages, the Big 8 auditors decided to merge and a new era of 'Big 6' auditors began. The new era of six top accountancy firms includes; Ernst and Young (Merger of Arthur Young & Co and Ernst & Whinney), Deloitte Touche Tohmatsu Limited (Merger of Deloitte Haskins & Sells and Touche Ross), Klynveld Peat Marwick Goerdeler (Merger of Peat Marwick Mitchell and Klynveld Main Goerdeler), Arthur Andersen, Coopers & Lybrand and Price Waterhouse. Subsequently, Coopers & Lybrand and Price Waterhouse decided to merge, thus bringing the number of top accounting firms to Big 5 firms. In 2002, Arthur Andersen voluntarily surrendered its license as a Certified Public Accountant to the US government due to being involved in a criminal charge while handling the taxes of Enron Corporation and thus, being forced into bankruptcy by market place (Cunningham and Harris, 2006). The fall of Arthur Andersen shrunk again the number of top accountancy firms in the United States. Today, the industry is monopolized by four audit firms, known as 'Big 4'.

FINANCIAL LEVERAGE AND SOLVENCY

Financial leverage is a mechanism used by entrepreneursto identify the relationship between debt (long-term liabilities) and equity and/or total assets. This helps investors and creditors to analyse the overall debt burden on the company as well as the firm's ability to pay off debts in the future. Companies with higher levels of liabilities compared with equity or assets are considered highly leveraged and more risky for lenders. This study uses 'debt to equity ratio' as one of the measurement of leverage. Each industry has different debt to equity ratio benchmarks, as some industries tend to use more debt financing than others. A debt ratio of 0.5 means that there are half as many liabilities than there is equity. In other words, the assets of the company are funded 2-to-1 by investors to creditors. A lower debt to equity ratio usually implies a more financially stable business. Since debt financing also requires debt servicing or regular interest payments, debt can be a far more expensive form of financing than equity financing. The

appropriateness of a suitable leverage level is dependent on the risk preference of the business owners (Ho, 2013), thus an ideal capital structure is the prerogative of a firm's management team. Solvency ratio is also a form of leveraging; it measures companies' ability to meet its total long-term financial obligations, using companies' profits. The solvency ratio is calculated by dividing a company's net income and depreciation by its short-term and long-term liabilities. This indicates whether a company's net income is able to cover its total liabilities. Generally, a company with a higher solvency ratio is considered to be a more favorable investment.

AUDITORS' REPUTATION

Auditors act as a third party, bearing the responsibility in disclosing real financial information to stakeholders and providing explicit guidance to the board of directors (Spice and Pegler, 1978). Reputable auditors also present high quality report with greater transparancy which helps organization experience less volatility (Lang and Maffett, 2011; Lang, Lins and Maffett, 2012). Fan and Wong (2005), using a dataset from East Asia, documented that external auditors play a governance role; emerging markets voluntarily employ reputable information intermediaries to assure outside investors on the credibility of accounting information and hence mitigate the agency problem. Recruiting reputable auditors give confidence to investors and other stakeholders on the credibility of the company and its performance (Moizer, 1997). Reputable auditors also enhance the credibility of financial statements, thus lowering the borrowing costs (Pittman and Fortin, 2005).

Similarly, Chang, Dasgupta, and Hilary (2009) report that auditor quality affects the financing decisions of companies; higher audit quality reduces the impact of market conditions on companies' financial decisions and capital structure. Companies with reputable auditors have the tendency to issue more equity as opposed to debt. Thus, the debt ratios of companies decreases as audit quality increases. Chang, Dasgupta and Hilary (2009) and Lai (2011) also suggest that reputable auditors provide quality financial reports to the stakeholders by way of reducing information asymmetry and significantly affecting the debt and equity issuance of an organization. Generally, a business organization that is suffering from high level of information asymmetry will have higher debt ratios compared to competitors as managers try to moderate the informational costs of equity issuance by relying more on debt financing (Chang, Dasgupta and Hilary, 2009). As the payments to debt holders are fixed claims, the increase of debt financing will significantly affect the shareholders as it is mandatory for the organization to service the interest and debt principal. Pittman and Fortin (2004) believe that reputable auditors are able to enhance the credibility of financial statements which enables companies to lower their borrowing cost, by way of reducing the debt-related monitoring costs of a company. In a different scenario, Fraser et al. (2006) and Bliss and Gul (2012), using a Malaysian database found that politically connected firms are significantly associated with higher leverage, and that this association is greater when the firms are larger and more profitable.

In the context of this study, leverage level of a company is represented by two ratios; debt to equity and solvency ratio respectively. A negative relationship is predicted between auditors' reputation and debt to equity, whilst a positive relationship is expected for solvency ratio. Reputable auditors, being qualified professionals/experts, withproven audit quality are in excellent position to advise their clients on every component of profitability, leverage and solvency; specifically in advising their clients on the optimal debt to equity mix and the long-term survival of companies. Reputable auditors, who are also extremely conscious

of their reputation capital will ensure disclosing real financial information to all stakeholders, thus sending positive signals on the quality of information provided, ultimately reducing the uncertainty amongst potential investors. This creates more trust and confidence amongst investors and shareholders, simultaneously contributing towards company performance and maximization of shareholders wealth. This will ultimately contribute towards higher equity funding, higher profitability and lower liabilities (debt financing). Thus, the following hypotheses are proposed and tested:

H_1: Auditors' reputation have a negative impact on debt to equity ratio.

H_2: Auditors' reputation have a positive impact on solvency ratio.

MODERATION EFFECTS OF TRANSPARENCY ON THE RELATIONSHIP BETWEEN AUDITORS' REPUTATION, LEVERAGE AND SOLVENCY

Corruption refer to the abuse of public power for private benefit (Tanzi, 1998; Uslaner, 2004; Akcay, 2006). This phenomenon exists in both private and public sector as government officials provide government property (ex. licenses, permits, passports and visas) illegally for their personal benefit (Shleifer and Vishny, 1993). Bribery, extortion and embezzlement are some of the grizzly faces of corruption with the purpose of fulfilling private interest (Myint, 2000). Bribery is the act of giving financial benefit to another with the corrupt aim of influencing the decision of another or the discharging of another's official duty, whilst extortion refers to obtaining the property from another by using personal intimidation and power. Embezzlement is defined as taking money illegally from a firm without the permission of other stakeholders. In several cases of corruption, the abuse of public power is not necessarily for one's private benefit but it can be for the benefit of one's party, class, tribe, friends, family, and etc.

According to the Corruption Perceptions Index (CPI) announced by Transparency International in the end of 2013, none of the 177 countries ranked a perfect score (very clean) on the CPI index which indicates there is a serious corruption/transparency problem happening around the world. Transparency is a common issue happening in developing countries as the government spend more public resources on items which have high inducement (Mauro, 1998). Hence, Shleifer and Vishny (1993) concluded that this will probably amount to a large fraction of Gross National Product in developing countries. In fact, Transparency International recommends that world government urgently put more effort to eradicate money laundering, clear political finance and build more transparent public institutions which are free of transparency.

Kanagaretnam, Lim and Lobo, (2010), and Payne, Moore, Bell and Zachary, (2013) perceive that home country (either developed or developing country) transparency has effects on the relationship of auditors' reputation and organizations' performance. As the occurrence of transparency differs considerably from one country to another (Gaviria, 2002), it is believed that although firms are audited by similar reputable auditors, the performance of companies may differ when cross-country measurements are presented. According to Gould (1983), payoffs and bribery are often a reasonable way of doing business in some developing countries, increasing the cost of production and significantly affecting the performance of organization. Ponomareva and Zhuravskaya (2004) also documented that organizations might face liquidity problem when they are involved in paying high level of tax, payoffs and extortion to government officers. Wang and You (2012) further discovered that the organizations who operate in low transparency

countries have easier access to several forms of funding, thus affecting the liquidity and leverage of companies.

In the context of this study, it is hypothesised that transparency level of a country will have an inverse effect on the relationship between auditors' reputation and leverage. This is mainly due to the fact that countries with low transparency level have a weaker external financial system due to the presence of 'people in authority' having major influences in the decision of fund providers such as, bankers and investors. Government intervention and low level of enforcement in rules and regulations by regulators in countries with low transparency further contribute to the moderating effect on the relationship. Similarly, low transparency levels mitigate asymmetric information and uncertainty in the execution of rules and regulations. As from the perspective of the firm itself, low transparency may create legal loopholes for the intervention of internal parties to make financial decisions which may be detrimental to the long-term profitability, shareholders' wealth maximization and the survival of companies.

Thus, the following hypotheses are proposed:

H_{3a}: A country's transparency level moderates the relationship between auditors' reputation and debt to equity ratio.

H_{3b}: A country's transparency level moderates the relationship between auditors' reputation and solvency ratio.

METHODOLOGY

Data Management

The main aim of this paper is to empirically determine the presence of any moderation effects of transparency to the relationship between auditors' reputation, firm leverage and solvency in the Asia Pacific countries. To achieve the main objective, the presence of any relationship between auditors' reputation, firm leverage and solvency will first be established. The ratios used are; debt to equity and solvency ratio. A total of 15721 companies for the years 2013-2014 form the sample of this study. Data have been winsorised to the 1 and 99 percentiles to control for extreme values and all reported t-values are White's corrected to control for heteroskedasticity (White, 1980). Table 1demonstrates the final dataset.

Table 1
Final Dataset

Country	No of companies	Country	No of companies
Australia	1841	Mongolia	249
China	2754	New Zealand	128
Fiji	19	Philippines	254
Hong Kong	224	Singapore	623
Indonesia	430	Taiwan	1573
Japan	3565	Thailand	555
South Korea	1748	Vietnam	803
Malaysia	952		
Total: 15718			

To ensure robustness of the study, the dataset is further divided into 3 main categories; Association of Southeast Asian Nations (ASEAN) countries, developing countries and developed countries within Asia Pacific countries as shown in Table 2:

Table 2
Dataset: Asia Pacific, ASEAN, Developing and Developed Countries

Asia Pacific Countries	ASEAN Countries	Developing Countries	Developed Countries
Australia	Indonesia	China	Australia
China	Malaysia	Fiji	Hong Kong
Fiji	Philippines	Indonesia	Japan
Hong Kong	Singapore	Malaysia	South Korea
Indonesia	Thailand	Mongolia	New Zealand
Japan	Vietnam	Philippines	Singapore
South Korea		Thailand	Taiwan
Malaysia		Vietnam	
Mongolia			
New Zealand			
Philippines			
Singapore			
Taiwan			
Thailand			
Vietnam			

Variables Measurements

This section discusses in detail the data source for all the variables used in this study. Leverage ratio is used to determine how much financial risk had been taken by an organization in a specific period of time. This study uses debt to equity as the guideline in measuring the leverage of a company.

$$Debt\ to\ Equity\ Ratio = \frac{Total\ Debt}{Total\ Equity}$$

Solvency ratio shows a company's ability to make payments and pay off its long-term obligations to creditors, bondholders, and banks. Better solvency ratios indicate a more creditworthy and financially sound company in the long-term.

$$Solvency\ Ratio = \frac{Net\ Income + Depreciation}{Total\ Liabilities}$$

Auditors' Reputation

The term "reputable auditors" refers to the auditors who perform high quality financial report to all stakeholders. In the past decade, researchers have identified different approaches to measuring audit quality.

DeAngelo (1981) refers to auditors quality based on the size of the accounting firms. Dopuch and Simunic (1982) further describes reputable auditors as auditors with reputable brandname and high performance. However, Francis and Wilson (1988) referred to the quality of audit by calculating the aggregate sales revenue of the auditors' listed clients. Although different researchers measure the quality of auditors using different yardsticks, most empirical studies have used audit firm size (eg. Big 4 versus non-Big 4) as the most common proxy for measuring audit quality. This is mainly because larger sized auditors are usually able to provide better quality work to their clients.

This study adopts the measure used by Titman and Trueman's (1986) and Beatty and Ritter (1989) in determining auditors' reputation. Information on the auditors employed by the company is obtained from Bloomberg databases and/or the respective company's financial report. The Big 4 audit firms are proxied as reputable auditors; whilst the non-Big 4 audit firms are proxied as non-reputable auditors. A dummy variable is created for this variable based on the type of auditors employed. The companies who recruit reputable auditors will be assigned a value of 1, and a value of 0 otherwise.

Countries' Transparency Level

The institutional arrangement used in this study is the transparency level of a country. This variable is surrogated by using the Transparency Perception Index (CPI) which is obtained from the Transparency International webpage. There are total of 177 countries being scored in the index, from the range of 0 (highly corrupted) to 100 (highly clean). Table 3displays thetransparency level of countries used in this study, for the year 2014.

Table 3
Transparency Perception Index (CPI) of Countries

Countries	Transparency Level	Countries	Transparency Levels
New Zealand	91	Malaysia	52
Singapore	84	Mongolia	39
Australia	80	Thailand	38
Japan	76	Philippines	38
Hong Kong	74	China	36
Taiwan	61	Indonesia	34
South Korea	55	Vietnam	31

Based on Transparency International webpage, the index is calculated using 13 different surveys or assessments produced by 10 independent organizations, which includes: Africa Development Bank- Country Policy and Institutional Assessments (AFDB), Asian Development Bank -Country Liquidity and leverage Assessment Ratings (ADB), Bertelsmann Foundation- Bertelsmann Transformation Index (BF), Economist Intelligence Unit -Country Risk Service and Country, Forecast (EIU) Freedom House -Nations in Transit 2809 (FH), Global Insights, formerly World Markets Research Centre-Country Risk Ratings (GI), Institute for Management Development - World Competitiveness Report and (IMD) Political and Economic Risk Consultancy, Hong Kong - Asian Intelligence and (PERC), World Economic Forum – Global

Competitiveness Report (WEF) and the World Bank - Country Policy and Institutional Assessments for IDA Countries (WB).

Hypothesis Testing

This section discusses the method used in hypotheses testing. Ordinary least square (OLS) is used to test the estimators. The purpose of using this method compared to panel data is to ensure that the sample size is not reduced due to the exclusion of all firms without full data requirements over the full sample period. Such exclusion of firms create a 'survivorship bias' (Bliss and Gul, 2012). This may have an impact on the results of the study as leverage and solvency are the main estimators.

Prior to hypotheses testing, a heteroscedesticity test is undertaken to identify the variances of errors across all observations. According to White's (1980), the variance of errors across all the observations should remain constant. Statisticians define this with the term of "homoskedastic" which can be represented by using the mathematical formula:

$$Var(e_i) = (e_i^2) = \sigma^2$$

Breusch-Pagan Godfrey (BPG) is used to identify and correct heteroscedesticity using the White's test. The independent variable (auditors' reputation) and the control variables are regressed againstfirms' leverage ratios. As further analysis, the sample size is divided into ASEAN, developed and developing countries within the Asia Pacific region. Finally, to test the moderation effects of the transparency level of a country on the relationship between auditors' reputation, firm leverage and solvency, the variables are interacted. In the interaction testing of variables, the variables are firstly mean-centered to control for multicollinearity (see Gujarati and Porter, 2010). Hypotheses test is undertaken for the main model (Asia Pacific countries), ASEAN, developed and developing countries.

RESULTS AND DISCUSSION

Descriptive Statistics for Asia Pacific countries

Table 4 summarizes the descriptive statistics of all the independent, dependent, control and moderating variables. The result shows that debt to equity (D/E) has a mean of 0.583, a median of 0.501 with standard deviation of 1.034. Solvency ratio (SR) has a mean of 3.861 anda standard deviation of 0.618. Among the control variables, mean of firm size (FS) is about 4.785 while it's median is 4.867 with a relatively large standard deviation of 2.192. Firm age (FA) has a mean (median) value of 3.192 (3.091) with the standard deviation of 0.754. The ownership retention (OwnRet) has a mean of 3.184, a median of3.258 and standard deviation of 1.003. Nevertheless, the independent variable, auditors' reputation (AudR) has a mean of 0.499, a median of 0.000 with standard deviation of 0.490 as it's a binary variable. The moderating variable, countries transparency level, measured in terms of transparency perception index (CPI), has an average of 4.025 while its median is 4.111. The minimum CPI is 3.434 whilst the maximum is 4.500 with standard deviation of 0.337.

Correlation Analysis

A correlation analysis is undertaken to examine the relationship between variables. Table 5 represents the correlation matrix for the data. Basically, all correlation coefficients are lower than 0.7, which indicates

minimal level of multi-collinearity between the independent, moderating and control variables. Based on Table 5, debt to equity is negatively correlated (correlation coefficient = -0.0565), whilst solvency ratio is positively correlated at 0.1400.

Table 4
Descriptive Statistics: Asia Pacific countries

	D/E	SR	FS	FA	OwnRet	AudR	CPI
Mean	0.583	3.861	4.785	3.192	3.184	0.399	4.025
Median	0.501	3.996	4.867	3.091	3.258	0.000	4.111
Minimum	0.605	-3.912	-8.758	0.693	-2.365	0.000	3.434
Maximum	4.603	4.605	12.412	6.059	4.605	1.000	4.500
Std. Dev.	1.034	0.618	2.192	0.754	1.003	0.490	0.337
Skewness	-0.107	-1.968	-0.476	-0.015	-1.177	0.411	-0.299
Kurtosis	3.209	7.241	1.654	-0.209	4.604	-1.831	-1.323

D/E indicates the debt to equity ratio & SR indicates solvency ratio, which represents the liquidity and leverage of a company. FS, FA &OwnRet are Firm Size, Firm Age and Ownership retention respectively, which represent control variables. AudR is Auditors' Reputation, which is a proxy to Audit Quality and CPI is transparency Perception Index, representing Transparency Level of a country.

Table 5
Correlation Matrix

	D/E	SR	FS	FA	OwnRet	AudR	CPI
D/E	1.0000						
SR	0.4390	1.0000					
FS	-0.0394	-0.0740	1.0000				
FA	-0.1190	-0.1626	0.1111	1.0000			
OwnRet	0.0033	-0.0032	0.0159	-0.0143	1.0000		
AudR	-0.0565	0.1400	0.1004	0.2434	0.0034	1.0000	
CPI	0.0988	0.1092	0.0363	0.2370	-0.0046	0.3962	1.0000

D/E indicates the debt to equity &SR indicates solvency ratioy, which represents the liquidity and leverage of a company. FS, FA &OwnRet are Firm Size, Firm Age and Ownership retention respectively, which represent control variables. AudR is Auditors' Reputation, which is a proxy to Audit Quality and CPI is Transparency Perception Index, representing Transparency Level of a country.

Regression results: relationship between auditors' reputation, firmleverage and solvency in the selected Asia Pacific, ASEAN, developing and developed countries

There is a significant negative relationship between auditors' reputation and debt to equity (coefficient, -0.4714, -0.5108, -0.8419 and -0.8917 respectively) at a significance level of 1% in the selected Asia Pacific, ASEAN, developing and developed countries. Thus, H_1 accepted As for the solvency ratio, a significantly positive relationship is noted between auditors' reputation and solvency ratio (coefficient, 1.7390 and 0.0940) at a significance level of 1%) in the selected Asia Pacific and developed countries. Thus, H_2 is accepted. The results indicate that reputable auditors are able to reduce the debt to equity ratio and increase the

solvency level of companies, ultimately contributing to a lower level of risk. As discussed in the hypotheses development, this is due to the attestation by reputable auditors on the quality disclosure of the audited reports, the reputation capital of the auditors, which minimizes asymmetric information and increases the confidence level of investors and shareholders to further increase the equity portion of funding business assets. Subsequently, this will have a positive impact on companies' profitability, liquidity and long-term solvency. The above findings support the studies of Chang, Dasgupta and Hilary (2009), Lai(2011), and Pittman and Fortin (2004), whereby reputable auditorsare likely to enhance the credibility of financial statements and enable companies to reduce their borrowings and debt-related monitoring costs.

Table 6
Regression results on the relationship between auditors' reputation and company performance in Asia Pacific, ASEAN, developing and developed countries

Countries		*Asia Pacific Countries*	*ASEAN Countries*	*Developing Countries*	*Developed Countries*
Debt to equity (D/E)	**Auditors' Reputation (AudR)**	-0.4714*** (-3.0970)	-0.5108* (-1.7510)	-0.8419*** (-2.8770)	-0.8917*** (-4.6390)
	Firm Size (FS)	-0.0000* (-1.8970)	-0.0001 (-1.6270)	-0.0000 (-0.9608)	-0.0000 (-1.3610)
	Firm Age (FA)	-0.0288*** (-9.9730)	-0.0043 (-0.5629)	-0.0051 (-0.6925)	-0.0381*** (-11.5700)
	Ownership Retention (OwnRet)	0.0001 (0.0561)	0.0061 (1.3240)	0.0019 (0.4986)	0.0006 (0.1817)
Solvency Ratio (SR)	**Auditors' Reputation (AudR)**	1.7390*** (3.0140)	0.2411 (0.1946)	-0.6528 (-0.5412)	0.0940*** (5.5210)
	Firm Size (FS)	-0.0002*** (-4.3300)	-0.0007*** (-3.1220)	-0.0005*** (-4.0180)	-0.0001*** (-2.8260)
	Firm Age (FA)	-0.1707*** (-15.5800)	-0.1221*** (-3.8280)	-0.1266*** (-4.1680)	-0.2058*** (-17.4400)
	Ownership Retention (OwnRet)	0.0003 (0.0362)	-0.0045 (-0.2308)	-0.0219 (-1.3780)	0.0232* (1.9330)
No. of observations		7244	3617	6016	9702

Standard errors are adjusted for heteroskedasticity, using the White's test
*significant at the 10% level; **significant at the 5% level; ***significant at the 1% level

Regression results: Moderation effects of countries' transparency levelon the relationship between auditors' reputation, firmleverage and solvency in the selected Asia Pacific, ASEAN, developing and developed countries

Table 7 shows the moderation effects of transparency level on the relationship between auditors' reputation and company leverage. Transparency level negatively moderates the relationship between the auditors' reputation and companies' debt to equityfor the Asia Pacific, developing and developed countries (coefficient; -0.4714, -0.7972 and -1.3203 respectively) at 1% significance level. Therefore, H_{3a} is accepted. The negative moderation effect means that high CPI reduces the debt to equity ratio (vice versa) when reputable auditors are employed. Regardless of geographical boundaries and economic status, countries with high transparency

Table 7
Moderating effects of transparency on the relationship between auditors' reputation, leverage and solvency in Asia Pacific, Developing and Developed Countries

Countries		Asia Pacific	Developing	Developed
Solvency Ratio (SR) **Debt-to-equity (D/E)**	**Auditors' Reputation (AudR)**	-0.1203*** (-4.1630)	-3.2862*** (-6.4180)	-1.2506 (-1.1890)
	Transparency Level (CPI)	-0.0443*** (-5.4330)	-0.0108 (-1.2340)	-0.0779*** (-3.1700)
	Auditors' Reputation X CPI	-0.4714*** (-3.0970)	-0.7972*** (-4.3940)	-1.3203*** (-3.5590)
	Firm Size (FS)	-0.0000* (-1.8970)	-0.0000 (-1.4230)	-0.0000 (-0.7444)
	Firm Age (FA)	-0.0288*** (-9.9730)	-0.0359*** (-11.3300)	-0.0076 (-0.8930)
	Ownership Retention (OwnRet)	0.0001 (0.0561)	-0.0003 (-0.1101)	0.0036 (0.8282)
	Auditors' Reputation (AudR)	0.0155** (2.1260)	0.0185** (2.0980)	0.0023 (0.1825)
	Transparency Level (CPI)	1.6540*** (2.6160)	1.2751** (2.4860)	4.2714*** (9.4010)
	Auditors' Reputation X CPI	1.7390*** (3.0140)	0.0182 (0.0277)	5.4580*** (3.5880)
	Firm Size (FS)	-0.0002*** (-4.3300)	-0.0001*** (-3.1070)	-0.0004*** (-2.9170)
	Firm Age (FA)	-0.1707*** (-15.5800)	-0.2044*** (-17.8900)	-0.1436*** (-4.1220)
	Ownership Retention (Own Ret)	0.0003 (0.0362)	0.0177 (1.5650)	-0.0187 (-1.0530)
No. of observations		15718	10654	5064

Standard errors are adjusted for heteroskedasticity, using the White's test
*significant at the 10% level; **significant at the 5% level; ***significant at the 1%
Level. Auditors' Reputation x CPI represents the moderated effects of the interacted
variable; auditors' reputation and transparency perception index (CPI)

further creates a platform for reputable auditors to execute their roles and responsibilities without any adversative intervention from internal and external parties. This reduces asymmetric information amongst stakeholders and attracts more investors to invest their funds into these companies, thus contributing to the negative relationship between auditors' reputation and debt to equity ratio. As for the solvency ratio, transparency level positively moderates the relationship between auditors' reputation and companies' solvency ratio (coefficient, 1.7390 and 5.4580) at 1% significance level in the Asia Pacific and developed countries respectively. Therefore, H_{3b} is accepted. No significance is noted in the developing countries. A positive moderation effect means that countries with high CPI contribute to the positive relationship between auditors' reputation and solvency. Reputable auditors in high transparency countries, specifically in the

developed countries play a significant role in enhancing companies' ability in repaying long-term debts and thus the improving the solvency of these companies. As discussed earlier, this is widely possible as they are able to play their role independently without external influence or pressure, thus creating a sustainable environment for auditors and companies alike. Interestingly, developing countries do not seem to be moderated by the transparency level; there could be several possibilities which includes the architecture of legal framework and its execution, rent-seeking activities by insiders, entrenchment etc.

CONCLUSION

The primary objective of this study is to determine the moderation effects of a country's transparency level on the relationship between auditors' reputation (proxied by Big4 auditors) and firms' leverage (proxied by debt to equity and solvency ratio). The study also examines the influence of auditors' reputation on both the debt to equity and solvency ratio. A large sample size of 15718 companies from 15 Asia Pacific countries is analyzed for the period 2013-2014. As part of further analysis, the dataset is sub-divided into 3 main categories: ASEAN countries, developing and developed countries within Asia Pacific. To test the moderation effects of transparency level of a country on the relationship between auditors' reputation, firms' leverage and solvency, this study further interacted the independent and moderating variables and regressed it against debt to equity and solvency ratio. All hypotheses are tested using ordinary least square method. This study documents a significant negative relationship between auditors' reputation and companies' debt to equity in the selected Asia Pacific, ASEAN, developing and developed countries, whilst a positive relationship is documented for solvency ratio. A significant negative moderation effect is noted on the relationship between the auditors' reputation and companies' debt to equity. A significantly positive relationship is also found between auditors' reputation and companies' solvency ratio in the Asia Pacific and developed countries.

Practical Implications and Future Research

Based on the empirical evidence, several practical implications are drawn: firstly, quality audit by reputable auditors reduces the debt to equity ratio and increases the solvency level of companies. This is important for the long-term survival of companies. This finding is useful in assisting owners of companies in their functioning roles as major decision-makers because reputable auditorsare professional experts and will be able to advise top management on the best execution of decisions, so as to maximize shareholders' wealth. Auditors are also in the best position to advice on appropriate strategies of effectiveness risk management, control, and governance, thus contributing to long-term sustainability of firms.

Second, the findings of this study will also help investors in identifying potential investment portfolios as auditors play a pivotal role in companies' long-term survival. Since countries' transparency level plays a dominant role in altering the relationship between auditors' reputation and debt to equity and solvency ratio, investors may want to independently diversify their portfolio (based on individual risk preference) by investing in foreign stock exchanges, i.e., countries with lower level of transparency. Holding global economy and firm-specific characteristics constant, different levels of transparencies have diverse level of investors' protection, political interference, corporate government, legal system etc., which would directly affect firmperformance.

Finally, since the countries' transparency level plays a dominant role in moderating the relationship between auditors' reputationand debt to equity and solvency ratio, it is important for government and

regulatory bodies to undertake appropriate measures to ensure country-level transparency is enhanced, and a more stable business environment is formed, thus attracting foreign direct investments. This will contribute immensely to the well-being and prosperity of companies and nation.

Future research may extend the dataset by including more economic organizations, such as Organization for Economic Co-operation and Development (OECD), European and American countries. Comparison could be made between legal and geographical boundaries. Secondly, more company specific variables can be added in future to provide more detailed insights. Finally, it would be extremely interesting to analyze the evolution of institutional framework within a country over different period of time and to test its impact on the firm performance.

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