

The Relationship between Third-Party Assurance Providers and Firm Value for Corporate Social Responsibility Reports

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Abstract

This study investigates whether the effect on the value of the company changes when companies send their reports to be assured different types of assurance providers. Our sample is composed of 578 observations from Taiwanese-listed companies that released voluntarily CSR reports between 2015 and 2021. The empirical results indicate a significant positive correlation between the voluntarily CSR reports of companies that get their assurance from an accounting firm and firm value. This finding suggests that if the report is provided with assurance by an accounting firm, it can influence investors' evaluations of the company, increase the report's function in transmitting firm value, and enhance its value.

Keywords: Corporate Social Responsibility Report, Assurance Providers, Firm Value.

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1. Introduction

In recent years, Corporate Social Responsibility (CSR) has become increasingly important (Huang and Watson, 2015; Christensen, et al., 2021). According to KPMG's "Big shifts, small steps - The KPMG Survey of Global Sustainability Reporting 2022," 96% of G250 companies now publish CSR reports, demonstrating that both academia and industry are highly concerned with this issue. Mackey et al. (2007) and Kitzmueller and Shimshack (2012) have discussed the relationship between CSR activities and firm value. Past literature has found that mandatory disclosure of CSR reports is negatively related to firm value (Chen et al., 2018; Manchiraju and Rajgopal, 2017; Huang et al., 2020; Aswani, et al., 2021). However, voluntary disclosure of CSR reports may enhance firm value and reduce capital costs (Marshall, Brown, and Plumlee, 2009; Dhaliwal, Li, Tsang, and Yang, 2011; Lins et al. 2017). There is also evidence to suggest that there is a U-shaped relationship between CSR and firm value (Brammer and Millington, 2008). Kitzmueller and Shimshack (2012) argue that CSR has no relationship with firm value. Therefore, it is difficult to clarify the relationship between the disclosure of CSR reports and firm value if the discussion is solely based on whether or not CSR reports are disclosed. One important reason for this is that CSR reports are mainly text-based and have multiple compiling standards, which makes the information they provide less reliable. It is difficult for investors to determine the value of a company based solely on whether or not it has disclosed a CSR report.

In financial reporting, auditing plays a role in determining whether companies comply with accounting standards, which can provide investors with more reliable financial reports (Beatty, 1989; Blackwell et al., 1998; Willenborg, 1999; Weber and Willenborg, 2003; Minnis, 2011). Simnett et al. (2009) and Casey and Grenier (2015) found that companies are obtaining third-party assurance services for their CSR reports in response to the challenges of globalization. Ioannou and Serafeim (2017) found that companies in China, Denmark, Malaysia, and South Africa are increasing their acquisition of third-party assurance for CSR reports. Du and Wu (2019) suggest that if a company's CSR report obtains third-party assurance, it can protect the company's value from losses in the event of inappropriate behavior in the future. Thus, obtaining third-party assurance can indeed increase the reliability of CSR reports (Brown-Liburd and Zamora, 2015; Cheng, Green, and Ko, 2015). Plumlee et al. (2015) found that if the quality of voluntarily disclosed CSR reports is higher, it can enhance firm value.

Accounting firms and consultants are the primary providers of assurance services for CSR reports in the market (Simnett et al., 2009; Casey and Grenier, 2015; Michelin et al., 2019). There are significant differences between the assurance services provided by accounting firms and consultants, particularly in terms of their reassertions of CSR reports (Michelon et al., 2019). Hodge, Subramaniam, and Stewart (2009) and Pflugrath, Roebuck, and Simnett (2011) found that assurance services provided by accounting professionals are more credible. However, Simnett et al. (2009) did not find that the type of assurance provider affects reliability. Duh,

Hsu, and Teng (2017) used experimental methods and found that when assurance services were provided by accounting professionals, the credibility of CSR reports with reasonable assurance was significantly higher than those with limited assurance. Furthermore, Clarkson, Li, Richardson and Tsang (2019) find that investors tend to value the provision of a CSR report only when it is assured by a Big4 accounting firm.

Therefore, it is evident from the literature that different assurance providers offer varying quality assurance services. This study seeks to further analyze whether there is a significant difference in firm value based on the type of assurance provider in Taiwan. This study intends to examine the relationship between different assurance providers for corporate social responsibility (CSR) reports and firm value. It does this by looking at a sample of listed companies that published CSR reports from 2015 to 2021. The empirical results show that companies using accounting firms as assurance providers provide more relevant information about company value in their CSR reports.

This study adds to the research on CSR report assurance by focusing on how CSR report assurance affects the value of a company. In the past, researchers have investigated what makes CSR reports get submitted voluntarily for assurance (Casey and Grenier, 2015, Wu, Chen and Chi, 2017), how CSR report assurance affects report quality (Pflugrath, Roebuck and Simnett, 2011, Ballou et al., 2018, Maroun, 2019), how audit quality affects CSR report assurance (He and Chiang, 2019), and how CSR report assurance affects the cost of equity capital (Casey and Grenier, 2015, Martínez-Ferrero and García-Sánchez, 2017). Few studies have investigated the link between different types of assurance providers for corporate social responsibility (CSR) reports and firm value in Taiwan's institutional setting. This study shows that the CSR reports of companies that get their assurance from an accounting firm have more relevant information about the firm's value. The results of this study hope to fill gaps in the existing literature. It is also hoped that practitioners can consider consulting with an accounting firm when choosing CSR or sustainability reporting assurance services.

The structure of this paper is as follows: Section 2 reviews the literature and develops research hypotheses; Section 3 describes the research design; Section 4 presents the empirical results; and Section 5 provides conclusions and suggestions.

2. Literature Review, and Hypothesis Development

2.1 The Relationship between Assurance on CSR Reports by Accounting Firms or Consulting Firms and Firm Value

Through corporate social responsibility (CSR), Lee et al. (2012) say that keeping a good relationship between customers and companies can make them feel more connected to each other and create longer-term business value. Firm value is one of the important factors that affect investors' interest and investment willingness in a company, and Wang (2011) found that CSR has a positive effect on firm value creation. By improving financial performance through CSR performance, the

company's value is further increased. Zhu et al. (2008) used Tobin's Q and economic value added as measures of a company's economic performance to explore the relationship between environmental performance, environmental disclosure, and economic performance measures. The results showed that environmental performance can indirectly affect Tobin's Q through environmental disclosure, and it was confirmed that environmental disclosure, which is part of social responsibility, can indirectly affect firm value. Wu and Liao (2017) pointed out that the social responsibility information conveyed by companies through CSR reports can increase the value relevance of their accounting information, and this effect only occurs in companies with higher financial transparency. Therefore, the reliability of information transmission depends on higher transparency, and the authenticity of this transparency needs to be checked by other third-party entities. The factors affecting whether a company obtains assurance on its CSR report include reputation building, enhancing credibility, and the different characteristics of the countries in which they operate. For example, in the United States, where regulations are more stringent, fewer companies obtain assurance on their reports, but in Taiwan, which currently lacks strict regulatory environments, third-party entities must be entrusted with providing assurance.

Compared with unaudited and uncertified information, audited and certified information is considered more reliable (Libby, 1979; Pany and Smith, 1982; Hodge, 2001), making assurance an important link in demonstrating credibility (Zadek et al., 2004; Edgley et al., 2010). In addition, the increased credibility brought by assurance can effectively reduce information asymmetry between companies and users and improve the quality of disclosed information (Watts and Zimmerman, 1986; Wallace, 2004). Moroney et al. (2012) found that reports with assurance have higher disclosure quality than those without it and can strengthen users' confidence in CSR reports (Hodge et al., 2009). Therefore, assurance not only enhances credibility but also further affects the company's value. Thus, the importance of assurance for CSR reports is evident.

This study explores at the role accountants play in the capital market when it comes to providing assurance services like tax assurance, assurance of financial statements, and assurance of financial forecasts. Compared to consulting firms, which are run by non-accounting professionals, accounting firms have a better professional reputation and more independence. Accounting firms have been providing assurance services for years according to the International Auditing and Assurance Standards Board's ISAE 3000, making them more familiar with its application (Bonner, 2008). Therefore, under the assumption that auditing and assurance services are similar in nature, having assurance services provided by accounting firms with a reputable brand can enhance the public's confidence in CSR-related information. The advantage of having assurance services provided by accounting firms lies in their ability to collect evidence, coordinate with experts or other relevant units, and integrate information systems, making them more capable of improving the quality of CSR assurance (Pflugrath et al., 2011). Furthermore, accountants must adhere to their professional knowledge and ethical standards,

making them a preferred choice for companies seeking to improve the credibility of their information. In addition to their accounting background, there are detailed ethical guidelines to enhance accountants' independence and objectivity, which are core ethical concepts. However, Moroney et al. (2012) found that when searching for non-accounting assurance service providers' websites, there were fewer mentions of ethical guidelines. Therefore, investors may trust accountants' professional quality and compliance with ethical guidelines, making them more confident in CSR reports with the assurance provided by accounting firms.

In terms of assurance service providers, since accountants have good independence and reputation, especially at large accounting firms, they are less likely to compromise on a single client's requirements due to their stable size, and they value their reputation, making them more likely to maintain their independence. After the CSR report is assured by an accounting firm, its credibility is increased (Pflugrath, Roebuck, and Simnett, 2011). On the other hand, when CSR reports contain more unique information than financial statements, non-accounting assurance agencies or sustainability consultants covering a wide range of different industry expertise have an advantage. Accounting firms can supplement this part of the industry's knowledge by hiring experts (Perego, 2009; Simnett et al., 2009). Although consulting firms can make suggestions to create value between companies and stakeholders (De Beelde et al., 2015), accounting firms have accumulated over the years in financial statement assurance, tax assurance, and financial forecasting assurance, and unlike consulting firms' independence being more likely questioned. Therefore, accounting firms' teams are still considered to have diverse professional skills (Huggins et al., 2011) and can provide effective assistance in performing assurance work. Maso et al. (2020) found that if a company's CSR assurance and financial statement audit are audited by the same accounting firm, it can reduce the company's ongoing business risks and improve audit quality. Therefore, based on the above, this study expects that in the CSR report that has undergone assurance services, making the assurance services of accounting firms more able to enhance the value of the company than the assurance results of consulting agencies. Therefore, this study proposes Hypothesis 1 as follows:

Hypothesis 1: Holding other conditions constant, voluntarily CSR reports with assurance provided by accounting firms have a higher firm value than those provided by consulting firms.

3. Research Design, Sample, and Measurement of Variables

3.1 Sources of Data and Sample Selection

This study's sample consisted of CSR reports from Taiwan-listed corporations. The "Corporate Governance" and "Financial Variables" databases of the Taiwan Economic Journal (TEJ) were used as sources of information on the CSR reports and associated factors.

The sample selection procedure is shown in Table 1. There were 578 yearly

observations of corporations that released CSR reports between 2015 and 2021. We begin with 12,437 firm-year observations. We delete observations that their CSR reports did not voluntarily get assurance service. After deleting observations without sufficient data, our sample is composed of 578 firm-year observations.

Table 1: Sample Selection Process

Sample Selection Process	Number of observations
Listed companies issuing CSR reports from 2019 to 2021	12,437
Excluded: CSR reports without assurance services	(10,542)
Excluded: CSR reporting is mandatory disclosure	(1,317)
Sample size for Hypothesis 1	578

3.2 Measurements Dependent Variable: Company Value (Tobin's Q)

To measure the dependent variable "company value," this study refers to previous literature that commonly uses Tobin's Q as a variable to calculate the market value of firms (Demsetz and Villalonga, 2001; Lins, 2003; Villalonga and Amit, 2006; Maury, 2006; King and Santor, 2008; Fahlenbrach and Stulz, 2009; Gompers et al., 2010), and many scholars use Tobin's Q as a proxy variable for measuring company value (Chan and Li, 2008; Chan, Lau, and Ng, 2011; Eberhart, 2012). Tobin's Q is defined as the market value of a company divided by its asset replacement cost, and a higher value indicates that the firm has better investment opportunities and competitive advantages. Therefore, this study uses Tobin's Q as the measure of the dependent variable and approximates the value of Tobin's Q to investigate company value. The formula for calculating Tobin's Q is the market value of equity and debt divided by the book value of total assets at the end of the year. Thus, this study uses the variables defined and calculated from the financial database of the Taiwan Economic Journal to measure company value, and the formula for the proxy variable of company value in this study is as follows:

Tobin's Q = (total shareholders' equity + long-term and short-term borrowing) / book value of total assets at the end of the year.

3.3 Independent Variables

Independent variable (FIRM) is set to examine whether there are differences in the value and relevance of assurance services provided by accounting firms and consulting agencies. If the CSR report is certified by an accounting firm, it is set as 1; otherwise, it is set as 0. Finally, in the selection of control variables, this study will consider the impact of variables from different dimensions on a company's value, including corporate governance variables and financial variables, to control for other variables that may affect the empirical model results, thus improving the accuracy of the regression model.

3.4 Control Variables

This study also controls for variables that may potentially affect a company's value, including board size (*BOARD*), director shareholding ratio (*INHOLD*), independent director ratio (*INDEP*), CEO duality (*DUAL*), institutional investor shareholding ratio(*INST*), company age(*AGE*), company size (*SIZE*), return on asset (*ROA*), leverage (*LEV*), earnings per share (*EPS*), Net profit margin (*PM*), capital expenditure ratio (*CAPEX*).

3.5 Research Model

This study aims to investigate the impact of assurance services on a company's value by comparing the differences in value relevance brought by assurance services provided by accounting firms or consulting agencies. The OLS regression analysis method is used to test the relationship between different types of assurance providers and a company's value, with Tobin's Q as the dependent variable and FIRM as the independent variable. This study investigates whether there is a difference in the relevance of the value brought by assurance services provided by accounting firms or consulting firms. Accordingly, the following regression model is established:

$$Tobin's\ Q_{i,t} = \beta_0 + \beta_1 FIRM_{i,t} + \beta_2 BOARD_{i,t} + \beta_3 INHOLD_{i,t} + \beta_4 INDEP_{i,t} + \beta_5 DUAL_{i,t} + \beta_6 INST_{i,t} + \beta_7 AGE_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 ROA_{i,t} + \beta_{10} LEV_{i,t} + \beta_{11} EPS_{i,t} + \beta_{12} PM_{i,t} + \beta_{13} CAPEX_{i,t} + YEAR_{i,t} + IND_{i,t} + \varepsilon_{i,t}$$

4. Empirical Findings

4.1 Annual sample distribution

The sample selection period for this study was from 2015 to 2021, a total of seven years. The sample sizes for hypotheses 1 were summarized for each year. In total, there were 598 observations for hypothesis 1 over the three-year period, as shown in Table 2.

Table 2: Annual Sample Distribution

Year of Report Release						
2015	2016	2017	2018	2019	2020	2021
Sample size of listed companies						
58	52	55	69	77	107	160
Total: 578						

4.2 Industry distribution of observations

The Taiwan Stock Exchange and the Over-the-Counter Market's 19-category list of industry codes used to classify businesses in this study. From the observations, it is found that there are 17 companies in the biotechnology medical, all of which have asked accounting firms to provide assurance. In the Electronics industry, 38 companies have asked accounting firms to provide CSR report assurance services. However, companies in the electronics industry that provides CSR report assurance mainly seek non-accounting firms to provide assurance services as industry distribution of observations shown in Table 3.

Table 3: Observations distribution by industry

Industry	2015-2021		
	<u>firm=1</u>	<u>firm=0</u>	<u>Subtotal</u>
Plastic industry	0	6	6
Textile industry	6	1	7
Electrical machinery	1	38	39
Electrical appliances and cables	0	1	1
Biotechnology medical	17	17	34
Paper industry	0	2	2
Steel industry	5	12	17
Automotive industry	0	14	14
Electronics industry	38	291	329
Building materials and construction	2	10	12
Shipping	0	3	3
Tourism	0	1	1
Trade and department stores	1	0	1
Other	<u>43</u>	<u>69</u>	<u>112</u>
Total	113	465	578

4.3 Descriptive Statistics

Table 4 presents descriptive statistics for variables for Hypotheses 1. In Panel A, the mean value of the dependent variable, company value (Tobin's Q), is 1.63, indicating that most companies have market values higher than their book values. In terms of the independent variables, the mean value of assurance provider (CPA) is 0.20, indicating that almost 20% of the companies choose accounting firms as their assurance providers. Regarding control variables, Panel A includes five corporate governance variables, including board size (BOARD), with a mean of 9.29, median of 9, maximum of 21, and minimum of 5, indicating that all sample firms have established a board of directors with at least three members according to the Company Act. Board ownership (INHOLD) has a mean of 20.47%, a median of 19.24%, a maximum of 82.01%, and a minimum of 1.9%, indicating that the majority of listed companies in Taiwan have concentrated ownership in the hands

of directors rather than diversified ownership. The independent director ratio (INDEP) has a mean of 34.91%, indicating that independent directors account for about 34% of the total number of directors. The mean value of dual CEO-chairman (DUAL) is 0.27, indicating that approximately 27% of the sample companies have a CEO who also serves as chairman. Finally, Institutional investor shareholding ratio (INST) has a mean of 54.90%, This means that more than 54% of companies are owned by institutional investors. For financial variables, there are six variables, including company size (SIZE), with a mean of 16.38, median of 16.35, maximum of 19.63, and minimum of 12.87, return on asset (ROA) with a mean of 13.45, leverage (LEV) with a mean 45.32%, earnings per share (EPS) with a mean 6.71, Net profit margin (PM) with a mean 4.65%, capital expenditure ratio (CAPEX) with a mean 13.45, indicating that the size of the sample companies is relatively evenly distributed, as shown in Table 4.

Table 4: Descriptive Statistics of Relevant Variables

Variable Name	Mean	Standard Deviation	Minimum	First Quartile	Median	Third Quartile	Maximum Value
Panel A: H1 (n=578)							
Tobin's Q	1.63	1.33	0.28	0.86	1.22	1.98	13.13
FIRM	0.20	0.40	0.00	0.00	0.00	1.00	1.00
BOARD	8.54	2.08	5.00	7.00	9.00	9.00	21.00
INHOLD (%)	20.47	10.81	1.90	13.50	19.24	25.17	82.01
INDEP (%)	34.91	10.66	0.00	28.57	33.33	42.86	0.60
DUAL	0.27	0.44	0.00	0.00	0.00	0.00	1.00
INST (%)	54.90	20.59	5.04	40.21	56.00	70.28	98.07
AGE	27.22	14.38	0.00	17.00	26.00	37.75	70.00
SIZE	16.38	1.03	12.87	15.71	16.35	17.04	19.63
ROA	13.45	8.85	-43.89	8.18	13.18	17.80	47.84
LEV (%)	45.32	15.59	2.18	34.26	46.65	56.43	89.72
EPS	6.71	11.51	-18.79	2.26	4.39	8.57	182.90
PM (%)	4.65	52.86	-734.93	3.90	7.97	14.48	65.06
CAPEX (%)	13.45	10.92	-23.78	0.31	5.52	12.06	56.75

4.4 Single-Variable Analysis of Variables

Regarding the analysis of differences in the providers of assurance services, companies receiving assurance services from accounting firms have significantly higher mean (1.821) Tobin's Q than those receiving assurance services from consulting firms, with mean (1.579), indicating that if the assurance service provider is an accounting firm, the company has a higher market value. Furthermore, there are significant differences in board size (BOARD), director shareholding ratio (INHOLD), independent director proportion (INDEP), CEO duality (DUAL), company age (AGE), return on asset (ROA), Net profit margin (PM) between the two groups. In other words, companies receiving assurance services from

accounting firms have a higher proportion of board size, director shareholding ratio, independent director proportion, CEO duality, return on asset, net profit margin, a smaller company age. These findings are presented in Table 5.

Table 5: Variance Test of Assurance Providers

Variables	With Accounting Firm Assurance (N=113) Mean	With Consulting Firm Assurance (N=465) Mean	T-test Mean Difference (t-value)
Tobin's Q	1.821	1.579	0.081* (-1.745)
BOARD	8.83	8.47	0.095* (-1.674)
INHOLD(%)	25.142	19.329	0.000*** (-5.244)
INDEP(%)	35.153	34.857	0.047** (1.992)
DUAL	0.34	0.14	0.000*** (-5.295)
INST(%)	51.445	55.738	0.791 (-0.265)
AGE	24.50	27.89	0.025** (2.244)
SIZE	16.286	16.399	0.295 (1.048)
ROA	15.204	13.020	0.019** (-2.362)
LEV(%)	46.944	44.931	0.219 (-1.232)
EPS	7.101	6.617	0.689 (-0.401)
PM(%)	12.862	2.652	0.066* (-1.845)
CAPEX(%)	6.733	6.053	0.553 (-0.594)

Notes: ***, **, and * represent significant levels of 1%, 5%, and 10%, respectively.

4.5 Correlation analysis

Table 6 shows the correlation analysis using both Pearson and Spearman correlation coefficients to look for multicollinearity among the independent variables and to see if the research hypotheses have initial support. The results show that all of the correlation coefficients between the independent variables are less than 0.5. This suggests that there is no significant multicollinearity among them. For Hypothesis

1, Tobin’s Q and FIRM are positively correlated in Pearson (0.073) and significantly positively correlated in Spearman (0.101). Therefore, it can be preliminarily concluded that hypotheses 1 are supported in this study. Additionally, the Variance Inflation Factor (VIF) is used to test for the presence of multicollinearity among the variables. The VIF values for all variables are found to be below 6, indicating no significant multicollinearity problems among the independent variables in the empirical mode.

Table 6: Correlation Coefficient Anal

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Tobin’s Q	1.00													
FIRM	.073*	1.00												
BOARD	.024	.070*	1.00											
INHOLD	.027	.214**	-.107**	1.00										
INDEP	.096**	.011	-.416**	.123**	1.00									
DUAL	.026	.216**	-.048*	.024	.093**	1.00								
INST	.207**	-.083*	.218**	.203**	-.032	-.165**	1.00							
AGE	-.048*	-.093*	.022	-.015	-.061**	-.036	-.035	1.00						
SIZE	-.072**	-.044	.224**	.029	-.100**	-.081**	.325**	.023	1.00					
ROA	.303**	.098**	.043*	-.026	.048*	.007	.267**	-.129**	.120**	1.00				
LEV	-.244**	.051	.064**	.078**	-.040	.009	-.008	-.029	.406**	-.184**	1.00			
EPS	.216**	.017	-.005	-.027	.050*	-.053*	.252**	-.042*	.311**	.467**	-.075**	1.00		
PM	-.048*	.077*	.016	-.003	-.023	.018	-.003	-.047*	.011	.101**	.065**	.037	1.00	
CAPEX	.159**	.025	.030	.017	.050*	.019	.036	-.023	.031	.265**	-.072**	.073**	-.041*	1.00

4.6 Multiple Regression Analysis

Table 7 presents the regression results for the impact of different providers of assurance services on firm value in Hypothesis 1. The empirical results show a significant positive relationship between Tobin’s Q and FIRM, which is consistent with our expectations. This indicates that assurance services provided by accounting firms can increase firm value. Although current regulations do not require companies to choose third-party providers to provide assurance services, considering that accounting firms have better resources and experience accumulation than other consulting firms, we recommend that companies consider accounting firms when choosing assurance service providers in the future. Most of the other control variables, with significant positive impacts on firm value in terms of CEO duality, institutional investor shareholding ratio, return on asset, earnings per share.

Table 7: Results of Multiple Regression Analysis

Variables	Coefficients	t-value	P-value	VIF
Constant	-125.974	-2.46	0.014	-
FIRM	0.069*	1.788	0.074	1.207
BOARD	0.063	1.395	0.164	1.635
INHOLD	-0.009	-0.233	0.816	1.264
INDEP	0.051	1.125	0.216	1.647
DUAL	0.067*	1.786	0.075	1.137
INST	0.178***	3.956	0.000	1.621
AGE	-0.096**	-2.649	0.008	1.061
SIZE	-0.133**	-2.908	0.004	1.675
ROA	0.305***	5.817	0.000	2.206
LEV	-0.024	-0.524	0.601	1.665
EPS	0.119**	2.865	0.004	1.387
PM	-0.392***	-8.704	0.000	1.623
CAPEX	0.058	1.553	0.121	1.136
Adj R^2	0.27	YEAR: included		
N	578	IND: included		
F-Value	17.349	Prob>F=0.000		

Note: ***, **, and * represent significant levels of 1%, 5%, and 10%, respectively.

4.7 Additional tests

Compared with unaudited and uncertified information, audited and certified information is considered more reliable (Libby, 1979; Pany and Smith, 1982; Hodge, 2001), making assurance an essential link in demonstrating credibility (Zadek et al., 2004; Edgley et al., 2010). We further examine whether a company's CSR report is certified by a third party (without distinguishing whether assured by an Accounting firm or a consulting firm) enhances the objective results of the report, making its information disclosure more reliable and changing investors' evaluations of the firm's value, thus increasing the company's value. There were 11,882 yearly observations of corporations that released CSR reports between 2015 and 2021. We have established a new Independent Variable (ASS) to measure whether CSR reporting is confident by third parties. If the CSR report is certified by third parties, it is set as 1; otherwise, it is set as 0. The untabulated results show that assuring the CSR report can enhance the quality and reliability of the information transmitted, thus leading to a higher evaluation from stakeholders.

Table 8: Results of Additional tests (N=11,882)

Variables	Coefficients	t-value	P-value	VIF
Constant	-48.396	-3.497	0.000	-
ASS	0.040***	3.965	0.000	1.457
BOARD	0.068***	6.683	0.000	1.450
INHOLD	-0.031***	-3.384	0.001	1.172
INDEP	0.050***	5.330	0.000	1.260
DUAL	0.019**	2.169	0.030	1.051
INST	0.169***	16.606	0.000	1.457
AGE	-0.035**	-4.089	0.000	1.022
SIZE	-0.298***	-24.095	0.000	2.145
ROA	0.026***	2.574	0.010	1.466
LEV	-0.107***	-10.829	0.000	1.370
EPS	0.196***	19.573	0.000	1.411
PM	-0.068***	-7.997	0.000	1.015
CAPEX	0.038***	4.352	0.000	1.060
Adj R ²	0.15	YEAR: included		
N	11,882	IND: included		
F-Value	146.179	Prob>F=0.000		

Note: ***, **, and * represent significant levels of 1%, 5%, and 10%, respectively.

5. Conclusions and Suggestions

In recent years, various social incidents such as food safety scandals, labor disputes, and environmental pollution have seriously damaged the image of enterprises, not only creating negative impressions among the public but also affecting the interests of stakeholders. Therefore, the concept of sustainable development has gradually emerged in Taiwan, emphasizing the responsibility that enterprises should undertake for society on top of their profitability. As a result, companies have started to publish Corporate Social Responsibility (CSR) reports to explain their related activities to stakeholders, government agencies, and the general public. However, the information conveyed through CSR reports is not generally objective, and the reliability of the information needs to be strengthened through verification by an independent third-party unit. The difference in the results of assurance services provided by different units is also a key concern of this study.

This study used a sample of listed companies that had published CSR reports between 2015 and 2021. The results showed when the assurance service provider was an accounting firm (as compared to a consulting firm), the company's value was also higher. In addition, the empirical results of hypotheses 1 showed that companies with high director shareholding ratios, the dual role of the chairman and general manager, a smaller company size, company age, higher asset returns, earnings per share and lower net profit margin were more willing to engage in assurance services for their CSR reports. These results suggest that companies could

increase their willingness to engage in assurance services for their CSR reports and choose accounting firms with professional knowledge and experience as their assurance service providers to enhance stakeholder evaluations of their companies. Finally, based on the empirical findings of this study, in addition to providing information on the cost-effectiveness of information disclosure, it can also increase companies' motivation to seek assurance, which can help promote the sustainable development of enterprises and enhance international competitiveness.

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