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## Article

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## **Relationship between Corporate Governance, Corporate Sustainability and Financial Performance**

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### **Abstract**

This study aims to investigate three crucial questions. First, whether the corporate governance and corporate sustainability leads to improved firm financial performance or not? Second, whether the sound corporate governance practices improve firm sustainable performance or not? Third, whether the corporate sustainability mediates the relationship between corporate governance and firm performance or not? We used the sample 425 firms listed on Australian Securities Exchange (ASX). Using structural equation modeling approach, we find that corporate governance is positively linked to corporate sustainability performance, and corporate sustainability performance leads to improved financial performance. We also find that corporate sustainability performance mediates the link between corporate governance and financial performance. These findings are important for two aspects. The first is for firms' management, the regulators, policymakers in promoting corporate governance and corporate sustainability practices. Second, our study provides empirical support to current policy debate that investing in good governance and better sustainability practices is vital for long-term value creation.

**Keywords:** sustainability performance, financial performance, corporate governance, ASX, Australia.

### **1. Introduction**

Does corporate governance affect financial performance? Although prior research came up with mixed evidences such as positive (e.g., Brown & Caylor, 2006; Ammann, Oesch

& Schmid, 2011; Arora & Sharma, 2016; Pillai & Al-Malkawi, 2018), other studies have yielded negative (Dang et al., 2018) or neutral results (Young, 2003). Inconsistent and inconclusive results are particularly thought to be driven by methodological differences, context, variables and measurements used. However, an alternative explanation for inconsistent findings in extant studies is the neglect of the mechanism. One such mechanism that has been ignored is corporate sustainability performance. Aras and Crowther (2008) argue that corporate governance and corporate sustainability are interlinked and fundamental to the continuing operation of any corporation. According to Shrivastava & Addas (2014), sound corporate governance itself can engender high sustainability performance. Good corporate governance mechanism always play significant role in ensuring management practices aligning with the interest of both shareholders and stakeholder. This includes the sustainability considerations and integration of economic, social and environmental concerns of the stakeholders into their business strategy and operations (Morioka & de Carvalho, 2016). In this way, the sound corporate governance increases not only financial performance, but also sustainability (social and environmental) performance (Dočekalová & Kocmanová, 2016).

Recently, there has been a significant increase in the aspiration for achieving sustainable development goals worldwide. Sustainable development agenda has been the key concern for various governmental as well as non-governmental organizations. No business agenda is complete without referring to the concept of “sustainability” (Williams, 2010). Moreover, due to the growing awareness and demands for business behavior, the concept of “sustainability” has been even gradually transformed from a macro-environment issue into a mainstream business practice (Milne et al., 2009; Laine, 2010). There is a fundamental belief that that businesses can deal with sustainable development through better sustainability performance (Escrig-Olmedo et al., 2017). Firms are being pressurized by, policy makers, investors, shareholders and stakeholders to adopt sustainable practices (Morioka & de Carvalho, 2016), that will further enhance their economic position in the long run.

Although numerous research studies have focused on how corporate governance and sustainability contribute in firm’ performance (Young, 2003; Tornyeva & Wereko, 2012; Makki et al., 2013; M. A. M. Makki & Lodhi, 2014), while some studies focused on the impact of sustainability disclosure on sustainability performance (Goyal et al., 2013; Hummel & Schlick, 2016 and Rezaee, 2016). However, the empirical results of both types of researches are mixed, conflicting and inconclusive (Trumpf & Guenther, 2017). Considering the controversial nature of the results for the relationships between firms’ governance and performance, and sustainability and firm performance, there is a need to devise sound conceptual framework to investigate these relationships. Furthermore, the corporate governance research has ignored the impact of corporate governance on sustainability performance (Aras & Crowther, 2008) and the mediating role of sustainability performance on the corporate governance and its performance link (Galbreath, 2018). The investigation of the relationship between corporate governance, sustainability performance, and firm performance is very important as it not only bridges the two kinds of literature, but also provides substantial evidence to the practitioners and policymakers for improving both practices. Identifying this gap in our knowledge, we endeavor to contribute to the emerging literature by investigating the interrelationships

between corporate governance, sustainability performance and financial performance in the Australian context. Australia has been chosen as a case study for this research as the Australia is among the leaders of sustainability practices and the Australian government has a growing interest in corporate sustainability for sustainable development. This country has a long history of sustainability management and reporting practices (Higgins *et al.*, 2015).

## **2. Literature Review and Hypotheses Development**

### *2.1 Corporate Governance and Financial Performance*

Corporate Governance (CG) is a system through which corporate entities are directed as well as systematically controlled (Cadbury, 2000). The need for CG arises because of separation of corporate ownership and its control. Agency theory explains the emergence and development of firm governance in a way that a separation between ownership and control gives rise to the agency problems but quality governance system reduces the risk of expropriation of minor shareholder's wealth. Thus, the situation demands a system that ensures the alignment of the goal between agents and principals. In this way, the concept of corporate governance evolved to reduce the agency cost. It is the fiduciary duty of directors to govern the company in the best possible way (Shrivastava & Addas, 2014). Directors should play role formally when addressing management issues and at the time of taking critical decisions in respect of setting new public policies (Cuervo, 2002). Effective corporate governance includes creating and increasing shareholder value along with protecting the stakeholders' interest at the same time.

A number of studies explored that better corporate governance accelerate financial performance (Brown & Caylor, 2006; Ammann *et al.*, 2011; Arora & Sharma, 2016; Pillai & Al-Malkawi, 2018). On the other hand, some others (Dang *et al.*, 2018) reported a negative relationship between governance and financial performance. Few studies reported insignificant relationship between corporate level governance and its financial performance (Young, 2003). Despite mixed findings, the majority of relevant studies highlighted positive relationship. Thus, we investigate the relationship between CG and FP at the first instance and then take further step to explore other mechanisms that mediate this relationship. However, we formulate the first hypothesis as follow:

- **H<sub>1</sub>:** All else being equal companies with better corporate governance mechanism have better financial performance.

### *2.2 Corporate Governance and Sustainability Performance*

In today's business world, companies are striving more for sustainable performance by incorporating the economic, social and environmental policies in their business operations. Corporate governance plays an important role in this respect by making effective decision about proactive sustainability practices (Arora & Dharwadkar, 2011). Good governance is also associated with better monitoring of social and environmental performance in a way that illegal and socially not acceptable actions must be avoided to maintain firm's market image. The components of corporate governance (i.e., composition of the board, CEO duality, and board size,) could have a strong influence on sustainability performance. In a similar vein *et al.* (2014) contended that more disciplined

boards (regarding board meeting attendance) and boards with a higher percentage of independent directors' result in better sustainability performance. Moreover, high sustainable firms have more responsible boards whose incentives are closely linked to economically, environmentally and socially related activities as compared to their counterparts (Eccles et al., 2012).

According to Aras and Crowther (2008), sound governance is mostly expected to load a positive influence on sustainability performance. Also, governance and sustainability are converging through "triple bottom line" in the firms' boardroom (Hussain et al., 2018). The governance mechanism could align the economic, social and environmental impacts and leads to sustainable value creation (Benn & Dunphy, 2007). In particular, stakeholders' theory may explain the link among a firm governance and sustainability performance in a way "the system of corporate governance shall ensure the protection of stakeholders' interest by integrating the economic, social and environmental concerns into the corporate practices and strategies (Galbreath, 2018). Based on the above arguments, we hypothesize;

- **H<sub>2</sub>:** All else being equal better corporate governance leads to better sustainability performance.

### *2.3 Corporate Sustainability Performance and Financial Performance*

In perspective of market liberalism, sustainable development prospects are considered poor unless corporate world will not pay proper attention to economic, social and environmental dimensions of sustainability (Dryzek, 2013). Previous studies suggest that firms should engage in sustainability practices because of business reasons in addition to the ethical responsibility and stakeholder accountability reasons (Charlo et al., 2017). There is evidence that a reduction in carbon emission and energy consumption brings financial gains (Lee et al., 2015). Likewise, minimizing the global warming risk provide competitive advantages and long-term investments to the firm (King & Lenox, 2001). Overall, there is a belief that sustainability performance enhances the financial performance of the business in the long run (Tomšič et al., 2015; Lu & Taylor, 2016; Charlo et al., 2017), thus achieving globally sustainable development goals (Morioka & de Carvalho, 2016). It is an investment strategy that requires businesses to employ best practices to meet the needs of current and future stakeholders in a balanced way (Artiach et al., 2010). In addition, sustainability increases managerial competencies and enhances organizational efficiency by aligning its interest with stakeholders' interest, also claimed by defender of stakeholder theory (Manetti, 2011).

Studies acknowledge that the cost of sustainability performance exceeds its benefits (Becchetti & Ciciretti, 2009). Firms investing in sustainability activities incur additional cost such as adoption of environmentally friendly practices, improved health and safety condition, the introduction of community development program, and charitable donations. Therefore, investment in sustainability is the reallocation of scarce resources of the firm away from investor to the external stakeholders, which is contrary to the interest of shareholders (Barnett, 2007). This discussion suggest that investment in CSR activities incurs costs, but its positive effects on economic performance generally suppresses these costs. Following this logical debate, we hypothesize:

- **H<sub>3</sub>:** All else being equal better sustainability performance leads to better financial performance.

2.4 Corporate Sustainability Performance as Mediating Mechanism

The mixed and inconclusive nature of the relationship between corporate governance and financial performance allow scholars to explore a causal link among these variables. Following the work of Galbreath (2018), this paper argues that better governance may influence firm performance through soft improvements in social and environmental performance that also lead firms to advantageous relationship with powerful stakeholders. In perspective of stakeholder theory, corporate world mostly build reciprocated associations with general stakeholders by improved socially-oriented standards (e.g., implementation of social and environmental policies) may also create value for their stockholders (Freeman et al., 2004; Jensen, 2001).

Previous studies also found that better governance leads to better sustainability performance which in turn helps in improving the firms' financial performance (Shrivastava & Addas, 2014). Logically, the mechanism through which corporate governance impact corporate performance may be possible due to its influence over corporate sustainability performance as a means of response to particular stakeholders in form of their needs and interests. Following this reasoning, another justification for the inconsistent evidences is the inappropriate mechanisms used by the previous studies through which firms' governance might generate positive effects on financial performance. Hence, the mediating role of sustainability performance on the relation among CG and FP needs an empirical inquiry. We therefore propose the following hypothesis:

- **H<sub>4</sub>:** All else being equal sustainability performance acts as a mediator between corporate governance and financial performance.

The following structural model can be developed based on the above hypotheses:

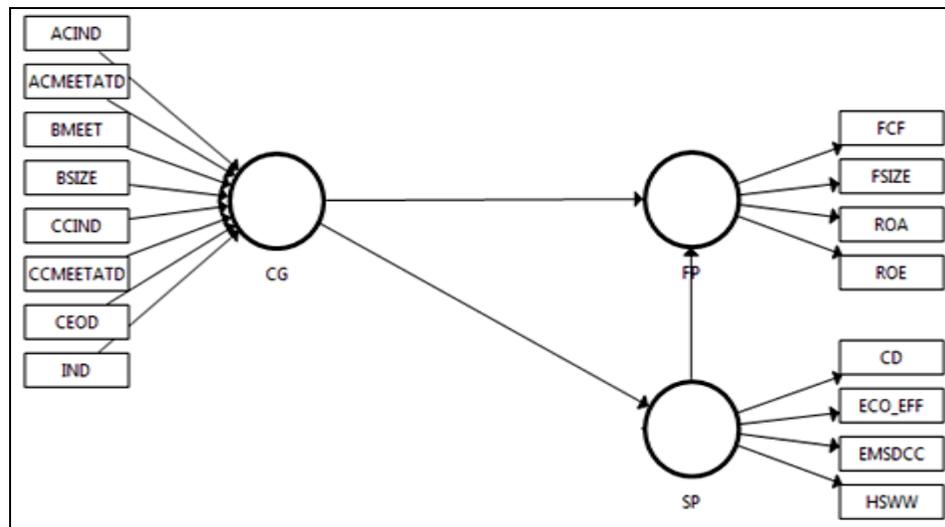


Figure 1: Structural Equation Model

### 3. Research Methods and Data

This study used the data from the companies listed on the Australian stock exchange (ASX) for the year 2014. From a total of 2,160 listed companies, companies with sustainability disclosure (either in the form of a separate report or part of the annual report) were selected. The final sample of this study is comprised of 425 listed companies for which data was available on the explanatory variables. The variables data constructs along with their indicators and measurement description are shown in Table 1.

Sustainability performance index has been adopted from the work of Herbohn et al. (2014). The index is modified by excluding the governance factor, as in the current study corporate governance is the separate driving force for sustainability performance. The data on sustainability performance variables have been gathered from the annual reports of the companies for the year 2014 and the websites of the companies. There are four main constructs used for the sustainability performance index. The first construct includes environmental oriented management, social-development commitment, and capacity (EMSDCC) having six indicators, while the second construct represents Eco-efficiency (ECO-EFF) which has five indicators. The third construct highlights community development (CD) with four indicators, and the fourth construct is about the health and safety management system (HSMS) comprising five indicators. To develop a sustainability performance index, content analysis was performed with the help of NVivo 10 software. Moreover, this study applied Structural Equation Modeling (SEM) for analysis, which is the combination of factor and multiple regression analysis.

**Table 1: Description and Measurement of Variables**

		Variables	Description and Measurement
1.	Corporate Governance	CEO duality	CEO also chairman or not measured in 0, 1
2.		Board size	Board Size measured with total no. of directors on board
3.		Bmeeting	Number of board meetings
4.		Acattend	% of audit committee meeting attendance
5.		Acindep	% of independent directors on audit committee
6.		Ccattend	% of compensation committee meeting attendance
7.		CcIndedirc	% of independent directors on Compensation committee
8.	Firm Performance	ROA	Return on asset= net profit/ total assets
9.		ROE	Return on equity= PBIT/ capital employed
10.		Firmsize	Firm size
11.		Fcashflow	Free cash flow
12.		X1	Availability of an environment-related management system

13.	EMSDCC Environmental management, social development commitment and capacity	X2	Availability of committee on board-level to address safety, social, and environmental issues
14.		X3	Senior manager assignment to deal with day-to-day social and environment-oriented responsibilities
15.		X4	Incorporation of socially and environmentally-related objectives into executives' compensations
16.		X5	Employees and managers training on sustainability practices is provided
17.		X6	Firm's performance is scaled by industry leadership, including membership and external awards on sustainability performance
18.	ECO-EFF (eco efficiency)	X7	Availability of policy for eco-efficiency as well as environmental footprint (e.g. strong policies for resource usages, recycling, and emissions)
19.		X8	Designing technology to enhance performance of those areas where resource usages, emissions, and recycling of by-product take place
20.		X9	Commitment to environmental research and development
21.		X10	Setting targets regarding future environment-related performance
22.		X11	Corporate Voluntary disclosure for waste emission to external bodies (e.g. Australian Greenhouse Office Challenge Plus program)
23.	CD Community Development)	X12	Combine efforts with relevant industrial partners in form of sharing knowledge and R&D sponsorship
24.		X13	Firm's support of community charities
25.		X14	Existence of community support programs
26.		X15	Involvement of firms' staff members in welfare-development activities
27.	HSWW Health and safety management system	X16	Raising funds by firm for welfare-development projects
28.		X17	Existence of good management system of safety and health
29.		X18	Implementation of safety and health plans
30.		X19	Safety training programs for employees
31.		X20	Processes of addressing conflicts with management for employees

## 4. Results

### 4.1 Measurement Model

The measurement model is applied to estimate the validity for each constructed indicator. This section explains the evaluation of both the reflective and formative measurement models.

#### 4.1.1 Reflective Measurement Model

Sustainability performance (SP) and financial performance (FP) are the reflective constructs. To assess the validity and reliability of a reflective measurement model, this study used indicator reliability, internal consistency (Composite Reliability), convergent Validity and discriminant Validity.

Indicators reliability is tested by outer loading under reflective method. Prior research suggest that outer loading value have to be larger than 0.7 in context of confirmatory research context, and it should be larger than 0.4 under context of explanatory studies (Chin, 1998; Hair et al., 2011). All the indicators of SP have an outer loading greater than 0.7 except HSWW. Sustainability performance is still at the exploring stage, so we consider the HSWW to measure the SP because it has a loading greater than 0.4 that is a minimum threshold for an exploratory study. All indicators of SP are significant at the 1% significance level. The proxies used for financial performance are FCF, FSIZE, ROA, and ROE. FSIZE, ROA, and ROE have an outer loading greater than 0.7 and significant at 1%, whereas, FCF has a loading lesser than 0.7. We can't remove FCF from the FP's construct because it has an outer loading greater than 0.4 and statistically significant at 5% and it's a novelty to FCF as a proxy of FP.

Internal consistency of indicators' construct is the sense calculating to extent, the manifest is gauging the latent construct. For assessing internal consistency, researchers have recommended two approaches. First, the traditional scale of internal consistency known as Cronbach's alpha, and the second approach is composite reliability as recommended by the modern literature to evaluate the reliability of a construct (Hair et al., 2012). Extent literature highlighted that value should be greater than 0.7 and 0.6 for Cronbach's alpha and CR in confirmatory and in explanatory research respectively (Chin, 1998; Götz, Liehr-Gobbers, & Krafft, 2010; Hair et al., 2012). Moreover, high values indicate higher level of internal consistency or reliability. However, results in Table 2 shows that the values for CR and alpha for all the reflective constructs are larger than the standard criteria, i.e., 0.7, which confirm that our study fulfills the requirement of internal consistency or CR.

**Table 2: Output of Reflective Measurement Model**

Constructs	Indicators	Loadings	t-statistics	CR	Alpha	AVE
SP	CD	0.890017***	24.124141	0.880439	0.818060	0.652745
	ECO_EFF	0.829260***	11.671341			
	EMSDCC	0.876446***	21.599152			
	HSWW	0.602510***	14.015121			
FP	FCF	0.452038**	1.969008	0.839719	0.745523	0.579867
	FSIZE	0.886445***	25.478008			
	ROA	0.775930***	9.078329			
	ROE	0.852805***	15.753939			

\*p < .10, \*\*p < .05, \*\*\*p < .01

Convergent validity tests the extent to which latent construct converges in its manifest through explaining its variance (Sarstedt et al., 2014). Specifically, convergent validity is scaled by average variance extracted (AVE) using all construct indicators. The value of AVE that equals to 0.5 or greater shows significant degree of convergent validity, as suggested by literature (Chin, 1998; Götz, et al., 2010; Hair et al., 2012), means that the latent construct explains more than 50% by its indicators. Again, from table 4.1, it is found that all the values of AVE are greater than the minimum acceptable cut point 0.5, that confirms the convergent validity of the entire reflective construct.

Discriminant validity decides empirically the degree to which a latent construct differs from other latent constructs in the model, both in terms of construct correlation and the different assigned model's indicators (Sarstedt et al., 2014). Two approaches have been mostly suggested by the literature to check discriminant validity, which are Fornell-Larcker criteria, and cross-loading. Fornell & Larcker (1981) highlight that the value of square root for AVE for each construct may be used to evaluate the discriminant validity and such values should be larger than other correlation values among the reflective latent constructs. Table 3 provides the values of Fornell-Larcker criteria (square root values of AVE) and bold values indicate satisfactory results. The square root value of AVE for FP construct is 0.892, which is larger than the correlation value of another construct. Similar observations were found for SP constructs. The empirical values provide evidence that discriminant validity is meaningfully established.

**Table 3: Fornell-Larcker Criteria**

	CG	FP	SP
CG	<b>Formative Measurement Model</b>		
FP	0.632	<b>0.892</b>	
SP	0.638	0.723	<b>0.883</b>

Cross-loading is other criteria to assess the discriminant validity, and it is a less rigorous approach. Based on this criterion, an indicator should have higher loading relevant to construct than other particular constructs used in the model (Hair et al. Sarstedt, 2013). Table 4 shows that the indicators of SP and FP have higher loading in their construct as compared to another construct. It is concluded that all the indicators have higher loading in their constructs (marked as bold) that establish discriminant validity.

**Table 4: Cross Loadings**

Constructs	Indicators	CG	SP	FP
Corporate Governance (CG)	ACIND	<b>0.689173</b>	0.662263	0.559548
	ACMEETATD	<b>-0.094840</b>	-0.049812	-0.117937
	BMEET	<b>0.756361</b>	0.670557	0.669838
	BSIZE	<b>0.595745</b>	0.563756	0.492335
	CCIND	<b>0.850168</b>	0.733463	0.772996
	CCMEETATD	<b>0.694236</b>	0.672316	0.558521
	CEOD	<b>0.580807</b>	0.456017	0.572725
	IND	<b>0.529995</b>	0.422885	0.515910
Sustainability Performance (SP)	CD	0.719576	<b>0.890017</b>	0.701203
	ECO_EFF	0.836794	<b>0.829260</b>	0.776664
	EMSDCC	0.765180	<b>0.876446</b>	0.692395
	HSWW	0.455655	<b>0.602510</b>	0.419774
Financial Performance (FP)	FCF	0.304278	0.302233	<b>0.452038</b>
	FSIZE	0.749363	0.718899	<b>0.886445</b>
	ROA	0.754012	0.601022	<b>0.775930</b>
	ROE	0.779828	0.771461	<b>0.852805</b>

4.1.2 Formative Measurement Model

The evaluation criteria for the formative measurement model are different from the reflective measurement which is based on multicollinearity checks, outer weights, and then significance of outer weights. The issue of Collinearity among the indicators is very common in informative measurement models, so it is important to examine. Variance inflation factor (VIF) is applied for diagnosing the multicollinearity concerns. Extent research suggest that VIF value should be less than 5 for each indicator (Chin, 1998; Götz, et al., 2010; Hair, et al., 2011; Hair et al., 2012). It is noticed that in table 5 all the indicators of formative measurement model have VIF value which is less than 5, denoting that multicollinearity is not an issue in our study.

**Table 5: VIF, Outer-Weights and Significance**

Construct	Indicators	VIF	Outer Weight	t-statistics	p-values
Corporate Governance (CG)	ACIND	4.637	0.156	3.641***	0.000
	ACMEETATD	4.468	0.043	0.771	0.441
	BMEET	3.952	0.153	1.916*	0.055
	BSIZE	1.645	0.237	3.791***	0.000
	CCIND	3.643	0.753	5.742***	0.000
	CCMEETATD	4.917	-0.075	2.122**	0.034
	CEOD	3.223	-0.125	0.919	0.358
	IND	2.218	0.235	3.716***	0.000

\*p < .10, \*\*p < .05, \*\*\*p < .01

We calculate the weight of formative indicators which estimate each indicator's contribution towards its formative latent construct. Their weights are assessed by t-value to provide evidence about latent construct validity. In addition, significant indicator and weight shows that the item describes a significant part of the variance related to formative latent construct. Bootstrapping technique with 5000 re-sampling is being used to estimate the t-values as well as the significance of CG construct weights. Table 5 depicts the weights and significance of CG formative construct. Results show that the ACIND, BSIZE, CCIND, and IND are significant at 1% significance whereas, CCMEETATD and BMEET are significant at 5% and 10% respectively. On the other hand, ACMEETATD and CEOD are insignificant. These findings are also similar with existing studies (Shrivastav and Paul, 2013; Eccles et al., 2012).

There is contradiction among the scholars about the insignificant variable that whether it should be retained or removed. Some of prior research came up with a view that insignificant indicators should not be used in the study to get meaningful analysis from significant indicators (Diamantopoulos & Winklhofer, 2001). However, on the other side, some of PLS-SEM scholars recommend that insignificant indicators should not be removed from the study because it may raise issues related to content validity (Cohen, Cohen, Teresi, Marchi, & Velez, 1990). Following these studies, ACMEETATD and CEOD were retained due to the risk of content validity.

#### 4.2 Structural Model

The structural model shows the link between two constructs known as exogenous and endogenous. The structural model is determined by coefficients of determination ( $R^2$ ), predictive Relevance ( $Q^2$ ), path coefficients and significance of path coefficients

The Predictive relevance is a tool used for evaluating structural model, which provides model's ability of prediction. Stone-Geisser's  $Q^2$  is a reliable technique to evaluate the predictive relevance (Geisser, 1974; Stone, 1974). Blindfolding method of PLS-SEM is applied to measure the value for  $Q^2$  for predictive relevance that should be greater than 0 (Chin, 1998). Furthermore, the  $Q^2$  values which are 0.02, 0.15 and 0.35 showing weak,

moderate and strong degrees of predictive relevance, respectively. In our study, the  $Q^2$  values for both endogenous-constructs (SP & FP) is not only greater than 0 but it also greater than 0.35 indicating strong threshold. The results depict that model has very strong predictive relevance.

The value for path coefficients can particularly be used for evaluating the strength of connection between endogenous and exogenous constructs. In this vein, Chin, (1998) highlighted that path coefficients' value should be around 0.2 to indicate the meaningful associations and 0.3 or greater for ideal relationship. Hence, the path coefficients' lower values do not generate any significant link (Brown & Chin, 2004). The significance of each path coefficients is evaluated by bootstrapping and re-sampling. So, in this study, 5000 re-sampling is applied to evaluate significance of the path coefficients.

The CG and FP have a path coefficient shown I Fig 3 ( $\beta = 0.75, P < 0.01$ ), which indicates that CG and FP have a significant association because the path coefficient value is higher than 0.3 at 1% significance level confirming  $H_1$ . These results are also similar to the studies of Ghofar et al. (2014) and larker et al. (2007). Secondly, the coefficient value SP ( $\beta = 0.595, p < 0.01$ ) is also larger than the 0.3 standard value and significant at 1% significance level, which implies that CG has a stronger relationship with the SP. This finding support  $H_2$ , and conclude that better CG leads to better sustainability performance.

The relationship between the sustainability performance and financial performance is weak because the coefficient shown I Fig 3 ( $\beta = 0.161$ ) is lesser than minimum threshold 0.2, but the study of Brown & Chin (2004) suggest that the nature of relationship should be evaluated on the basis of probability value of the path coefficients. So in our case, the coefficient value is significant at 1% ( $p < 0.01$ ) concluding that better sustainability performance will result in better firm's financial performance. So support for  $H_3$ .

**Table 6:  $R^2$  and  $Q^2$  Values**

Constructs	R Square	Q Square
FP	0.798938	0.454992
SP	0.777682	0.486829

**Table 7: Path coefficients and t-values**

Path	Path Coefficients	t-value
CG -> FP	0.741006***	10.889374
CG -> SP	0.881863***	50.509634
SP -> FP	0.169253**	2.465254

\* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < .01$

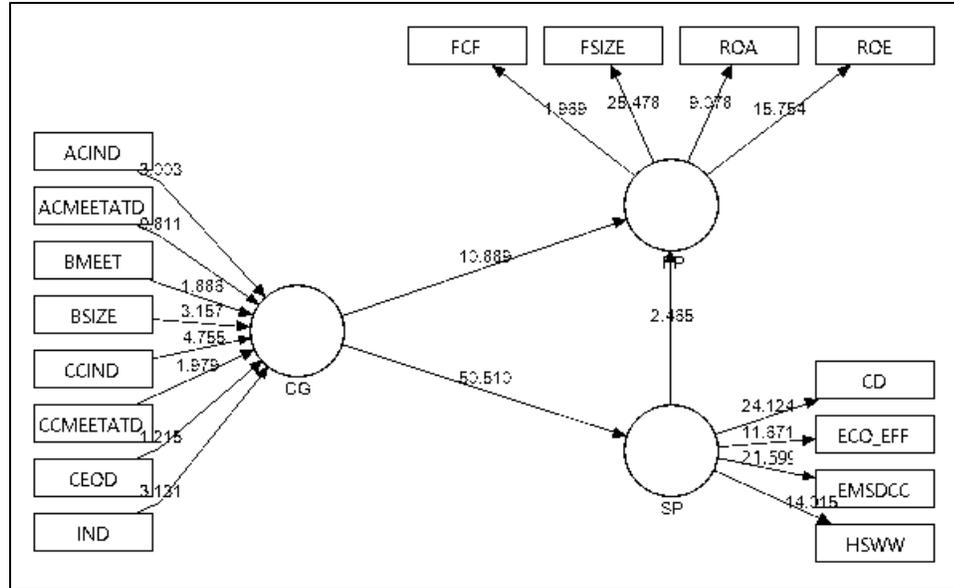


Figure 2: Final Structural Results

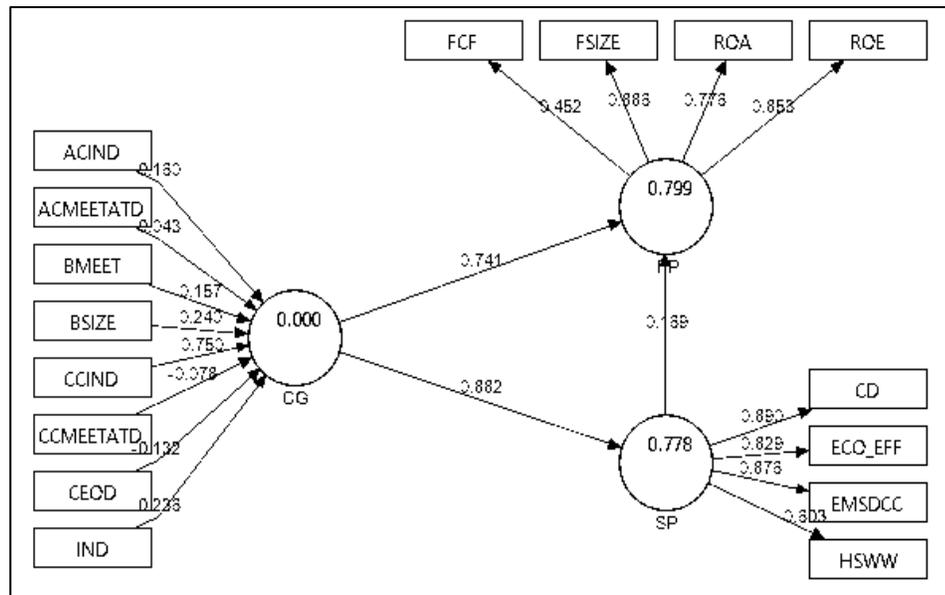


Figure 3: Final Structural Results

4.3 Mediation Testing

Sustainability performance is used as a mediator between the corporate governance and firm's financial performance. It fulfills all the requirements of mediation because:

- I. There is a significant relationship between the CG and FP ( $\beta = 0.75, P < 0.01$ )
- II. There is a significant connection between the CG and SP ( $\beta = 0.595, p < 0.01$ )
- III. There is a significant association between the SP and FP ( $\beta = 0.161, p < 0.01$ )

To test the significance of the mediation we must calculate the variance accounted for (VAF) by using the following formula: 
$$VAF = \frac{\text{Indirect Effect}}{\text{Total Effect}}$$

The indirect effect is calculated by multiplying the path of CG to SP and SP to FP, whereas, the total effect is the sum of direct effect and indirect effect. Table 8 shows the detailed calculation of VAF.

**Table 8: VAF Calculation and its Significance**

Indirect Effect	Total Effect	VAF	t-value	p-values
0.595 * 0.16 = 0.096	0.75 + 0.096 = 0.846	0.096 / 0.846 = 0.113	2.438	0.015

Statistically, the results of mediation are significant at 5% ( $p < 0.05$ ), that confirms our last hypothesis  $H_4$  that SP playing a role as a mediator between the CG and FP.

### 5. Conclusion

This paper investigates the relation among corporate governance, sustainability performance, and financial performance. The findings of this study shows that companies with quality governance system perform well in both sustainability as well as financial performance.

These results suggest that firms in which rule of laws are effectively implemented may maintain better image in the eyes of stakeholders and investors that ultimately contribute in business success. Our study also found that sustainability performance positively influence firm's financial performance. In addition, the mediator role of SP has also been tested between CG and FP. The results show that SP shapes the relationship between CG and FP thus playing role as a mediator between them. The positive interaction of SP on FP indicates that investing in sustainable developments brings long-term value to the firm. This view is supported by the theory as well, and the possible explanation of finding of negative relation may be that initially investment in sustainability outweighs the costs, but later on, that investment can create value for the firms.

This paper contributes to both the corporate governance and corporate sustainability literature by bridging the gap that exists in both literatures. This paper also responds to the calls for research that urged to investigate the impact of corporate governance on sustainability (Aras & Crowther, 2008; Lu & Taylor, 2016). Corporate governance demonstrate critical role in confirming a firm's success. Research on sustainability and firms' governance is often dealt separately, and less attention has been paid to the interaction of both areas.

The findings of this study have certain implications for the managers, regulators and policymakers as it clarifies the link among main aspects of the organization. For managers, this study is useful in terms of focusing on governance system that acts as a control device thus, aligns the interest of managers with the organization objectives. It helps in improving transparency which in turn enhances investor confidence and

processes of the organization. Hence to have better financial performance, managers should focus on developing and implementing governance strategies.

Furthermore, a better governance structure not only accounts for the claims of the shareholders but it also concerns the community and stakeholders. Thus, it helps in implementing sustainable strategy and achieving improved sustainability performance. For policymakers, this research has implications considering the debate on the long-term value perspective of promoting better governance and sustainability practices.

This paper has certain limitations. First, this paper focuses on the institutional context of Australia. The results may differ across other countries, as the code of corporate governance varies from country to country. Moreover, the sensitivity with regard to environmental issues varies: the resident of developed countries are much more concerned about the environmental hazards created by the industrial corporations while the majority of underdeveloped countries are interested in supporting businesses that offer competitive prices rather than paying premium prices for environmentally friendly products (King & Lenox, 2001). Second, the study framework is less comprehensive as it only measures the presence of systems and processes concerning sustainability performance. Future studies may use more complex models adding new mediators that may support more significant causal relationships. Third, only one-year data has been analyzed of the companies listed on ASX. Future studies may consider longer time periods for the data analysis.

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