



Article

# Environmental, Social, Governance & Financial Performance Disclosure for Large Firms: Is This Different for SME Firms?

Amir Gholami , Peter A. Murray and John Sands \*

Faculty of Business, Education, Law and Arts, University of Southern Queensland, Darling Heights, Toowoomba, QLD 4350, Australia; a.golame@gmail.com (A.G.); peter.murray@usq.edu.au (P.A.M.)

\* Correspondence: john.sands@usq.edu.au

Abstract: This study examines the association between a firm's environmental, social and governance (ESG) performance and financial performance by examining the extent to which stakeholder and legitimacy theory help explain the effects on explanatory variables used in the study. Moreover, the study makes a novel contribution to existing ESG and performance-based studies by exploring the explanatory effects of ESG and firm performance over ten years. In addition, the study discusses the ESG-performance link of SMEs, thus advancing existing knowledge related to ESG in respect of SME performance. The study uses an extensive Australian sample from Bloomberg's database from 2007 to 2017, while panel regression analysis is applied to investigate the relationship between a firm's ESG performance and profitability. The robustness of the results is evaluated after incorporating several robustness checks to address methodological, endogeneity and causality issues related to a firm's ESG performance disclosure. The empirical findings of this study suggest that improving a firm's ESG performance is beneficial to all stakeholders of large firms in the long run but not for SME companies. The theoretical model suggests that listed SMEs do not disclose their ESG activities for various reasons, such as a lack of necessary resources. Specifically, the study extends scholarly understanding of existing theory and discusses the significance of the findings for future research.

**Keywords:** environmental; social and governance; firm financial performance; stakeholder theory; legitimacy theory; voluntary disclosure

# check for updates

Citation: Gholami, A.; Murray, P.A.; Sands, J. Environmental, Social, Governance & Financial Performance Disclosure for Large Firms: Is This Different for SME Firms? *Sustainability* 2022, 14, 6019. https://doi.org/ 10.3390/su14106019

Academic Editor: Mário José Baptista Franco

Received: 27 March 2022 Accepted: 12 May 2022 Published: 16 May 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

#### 1. Introduction

The irresponsible disclosure behaviour of firms leading up to the 2008–2009 period of financial turmoil has been a consistent global driver of corporate efforts to improve environmental, social and governance (ESG) performance [Global Economic Crisis (GFC)] [1,2]. Improving corporate ESG performance creates a win-win situation for firms, direct shareholders and stakeholders, and the overall economy [3,4]. This can be supported conceptually by both legitimacy and stakeholder theory, where the increasing number of social contacts between firms and their community of stakeholders is beneficial.

Firms are encouraged to enhance their ESG performance to achieve greater support from stakeholders [5–8] and provide improved financial performance for firms [9–11]. However, previous studies report inconclusive findings. For example, Whelan et al. [12] reviewed published or corporate studies between 2015 and 2020 that concentrated on the association between ESG and a firm's financial performance, such as ROA and ROE. Their analysis identified positive, neutral or negative results of prior studies, which is consistent with the results produced by Margolis and Walsh [13]. Margolis and Walsh [13] found only a positive association. However, these studies tested the association between ESG and financial performance for large firms with largely diverse ownership. By comparison, smaller firms, such as small to medium enterprises (SMEs), tend to have narrower and more concentrated ownership structures, with many SMEs not practising the same level of disclosure (e.g., Zadeh and Eskandari [14]). Al Fadli et al. [15] argue that this difference

Sustainability **2022**, 14, 6019 2 of 21

in disclosure levels may be due to narrow ownership of smaller firms providing access to more proprietary information than experienced by large firms' shareholders and internal stakeholders, and therefore, the same level of disclosure is not considered necessary.

The favourable association between ESG and performance is supported by other studies [16–19]. Additionally, the lack of consensus caused by inconclusive findings of prior literature on the relationship has left this line of study unresolved, thus prompting new research questions [16,20,21]. Moreover, similar to large firms but for different reasons, the link between ESG and SME performance is not yet explored, while the few studies that exist have tended to examine SME sustainability postures and performance [22]. Linking SME ESG to SME performance is important because we contend that the social contract between firms and their stakeholders [23] will be equally important for these firms. Improving an SME value system might also be congruent with the value system of societal expectations [24], among other things.

Australia is a market-based economy, similar to many countries, such as the US, UK, New Zealand, Singapore, Germany, Ireland, and Canada, where larger listed companies have a diverse share ownership base. In contrast to this diverse share ownership base, the listed SME companies have a narrower share ownership base, which is similar to a number of Nordic and Germanic-based European countries identified, initially, by Hofstede [25] and adopted by Gray [26], such as the Netherlands, Austria, Switzerland, and France. This broad representation of different ownership bases in Australia provides a good platform for research that may be affected by the disclosure practices associated with these characteristics of ownership variation.

Lys et al. [27] argue that the financial benefits from improving corporate ESG performance disclosure emerge in subsequent periods, representing a lag in receiving financial performance benefits. This argument is supported by the model simulation findings by Bianchi et al. [28]. Therefore, prior studies may neglect a key variable by failing to consider time and temporal lags in their investigation. To overcome these failures, panel data analysis was selected for the current study because of its superior attributes over pure time series data analysis since it (1) provides a model of the common and individual behaviours of (companies) groups, (2) detects and measures statistical effects that cannot be detected by pure time series, and (3) minimises any estimation biases that may arise from aggregating groups into a single time series. A critical difference between time series and panel data is that time series focus on a single individual at multiple time intervals while panel data focus on multiple individuals at multiple time intervals. This study performs several tests, including robustness and sensitivity checks, to address the issues regarding differences in industries [29] or endogeneity issues [30], while panel regression analysis, including the firm's size effects, is used to negate any concern about unobserved firm-specific variables or missing elements.

This study is expected to contribute to the ESG-performance disclosure literature related to SMEs and enable an enhanced understanding of the economic consequences of a firm's ESG performance, particularly for large firms over time. The use of panel data to address the ESG-performance lag is expected to enhance scholarly understanding of corporate ESG performance significantly. Investors are increasingly taking corporate ESG performance disclosure into account when making investment decisions. By promoting ESG performance, large firms may capture new customers, and through these new customers, there should be an increase in cash inflows from increased sales (or increased deposits for financial institutions), which eventually impacts firms' financial performance. Similarly, SMEs and their stakeholders will be better informed about matching ESG requirements to performance as a result of this study. Taken together, this study explores these gaps and explicitly addresses the time issues by asking the following questions:

Research question (RQ1): What effect does ESG performance have on large and SME firms' financial performance?

Research question (RQ2): What effect does ESG performance have on the financial performance for large firms?

Sustainability **2022**, 14, 6019 3 of 21

Research question (RQ3): What effect does ESG performance disclosure have on the financial performance for SME firms?

Under the following sections: Section 2 presents the theoretical discussion, literature review and hypotheses development, exploring the research questions. Section 3 discusses the sample data and research method used in the gathering of data for the analysis. Section 4 summarizes the results. Section 5 outlines the results of the robustness tests, followed by the conclusion section in Section 6, which includes the implications for practice as well as the limitations and implications for future research.

# 2. Literature Review, Theoretical Framework and Hypotheses

The concept of corporate ESG performance disclosure has been discussed extensively in the academic literature over the past four decades [16,31]. The focus of firms' goals has extended from solely addressing shareholders' needs to include all stakeholders' needs. This extended focus is based on the recognition that there are diverse groups of stakeholders, such as local communities, employees, and customers, who care about corporate ESG performance disclosure [32].

## 2.1. ESG and Firm Performance

Social contract theory provides a basis for the theoretical social contract between firms and their stakeholders [23,33]. There are two aspects to this theoretical social contract. The first aspect is related to investors who wish to maximise their investment return while the second relates to the broader issues of operational sustainability and corporate governance [34]. These two aspects form the current norms and expectations of the broader community. That is, firms' value system is perceived as being congruent with the value system of the larger social system of which the entity is a part and must conform to the terms of the social contract [35]. This conformity with social contracts consists of sets of formal and informal agreements that apply to the firms themselves and their various stakeholders, that is, social contracts comprising sets of formal and informal agreements between societal groups and obligations toward each other [36]. For example, firms' theoretical social contract with the broader community includes banks and other large fund providers, institutional investors, employees, as well as customers [24,37]. These external and internal stakeholders also have a theoretical social contract with the broader community and are motivated to project their conformity with both aspects of the social contract. The fundamental association between parties to this social contract is a reciprocation legitimacy identified in legitimacy theory [33]. Here, the managerial branch of stakeholder theory [5] explains the motivation of managers to meet the ESG disclosure needs of dominant stakeholder groups that affect firms' ongoing survival.

The managerial branch of stakeholder theory explains how managing the relationship with different stakeholder groups through corporate disclosure helps to improve firm financial performance [5,6]. Different groups' needs are prioritised through mapping the salience of each group based on three criteria: power, authority, and urgency [38]. The highly salient stakeholders' group is categorised as having a high rating for all three criteria. Therefore, firms are motivated to enhance ESG performance disclosure to improve reputation and accountability [39], which, according to scholars, leads to increased financial performance [9,10,40].

Although the most prevalent view of the relationship between ESG and firm financial performance is positive, there are some contrasting findings in the literature [41–43]. For instance, although the relationship is reported to be moderately positive in some literature [16,20,41], some report neither a significant relationship [44] nor a neutral one [45]. Environmental performance has been positively related to return on assets (ROA) [46,47], which is consistent with some meta-analysis studies [48–50].

From the stakeholder theory viewpoint, prior literature [6,51,52], and the mode posited recently by Fatemi et al. [53] responsible behaviour of a firm positively impacts a firm's financial performance. It can also mitigate potential damage to a firm's market value through

Sustainability **2022**, 14, 6019 4 of 21

a commitment to socially responsible behaviour [54]. Paredes-Gazquez et al. [55] reveal a positive association between corporate social engagement and financial performance, while numerous studies find a positive association between corporate governance and financial performance [56,57]. Corporate governance is the main driver of firm sustainability, and ESG investment is critical [58]. Rabaya and Saleh [59] found that ESG disclosure had a positive influence on the competitive advantage at the firm level over ten years, which led to increases in financial performance. For instance, within the strategy field, Lavie, et al. [60] suggest that 'over time, repeated use of exploitation routines generates reliable feedback that enables organisations to refine their existing competencies further and evaluate better the likely success of exploitation efforts'. Regarding ESG and financial performance outcomes for SMEs, it is thus less likely that financial performance will be influenced over a shorter period after implementing ESG innovations. More likely, it takes longer periods to embed ESG capabilities such that there is a lag in performance. Also, for ESG studies thus far, a longitudinal research design with some exceptions (e.g., Drempetic, Klein and Zwergel [22]) has not been reported in prior research within an SME context.

This study explores the association between aggregated and disaggregated elements of a firm's ESG performance and large firms' profitability. Thus, the first hypothesis is:

**Hypothesis 1 (H1).** *There is a positive relationship between a firm's ESG performance and profitability.* 

# 2.2. Firm Characteristics and Performance

Another stream of the literature delves into the diverse components of ESG performance and its impact on financial performance. Cormier and Magnan [61] propose that the trade-off in relation to corporate ESG performance disclosure may vary, particularly in respect of large and SME firm characteristics [22,62]. Therefore, a firm's characteristics, such as its size, management structure, reputation and media exposure, should be considered [63].

Friedman et al. [64] provide the most dissenting viewpoint, arguing that corporate ESG performance disclosure imposes costs higher than its benefits and causes a misallocation of corporate resources. Nevertheless, the literature focuses on the modest positive relationship between a firm's ESG performance and profitability [41,42,65–67]. However, higher costs through implementing ESG initiatives and increasing ESG performance disclosure may be more achievable by larger firms. Extant research identifies the higher cost of implementing ESG [68] plus the higher cost of increasing the level of ESG performance disclosure [69]. Barauskaite and Streimikiene [21] conclude that ESG initiatives lead to both additional benefits and additional costs for businesses.

Some studies recommend that good ESG performance can enhance a firm's reputation and operational performance [10,70]. Cornett et al. [71] argue that larger financial firms follow sustainable behaviours on a larger scale than smaller ones. This trend may be present for larger and smaller firms irrespective of industry. Moreover, a recent study by Drempetic, Klein and Zwergel [22] found that ESG scores do not realistically measure the sustainability performance of a company and that firm size—such as corporate firms—are more advantaged as they have access to data availability and the necessary resources for providing ESG data. Interestingly, these scholars found that 'ESG scores [are] distorted in favour of large companies because ESG scores are dependent on resources for providing ESG data. In respect of the current study's aims, more needs to be known about the influence of ESG on the financial performance of SMEs since these limited studies have mainly focused on ESG and sustainability as distinct from ESG and financial performance.

Rabaya and Saleh [59] dissected their analysis into large and small firms and found that although there is a percentage difference between the two firm sizes, both small and large firms experienced an increase between ESG implementation and firm performance. The efforts implemented to address ESG issues constitute a cost to a firm that may lead to lower profitability, but cost-effective improvements from reduced waste and energy-saving benefits tend to offset the initial costs [72]. In summary, large firms have the financial capacity to pursue sustainable business on a greater scale than smaller firms, and therefore,

Sustainability **2022**, 14, 6019 5 of 21

the large firms' greater investment in ESG performance disclosure may result in these firms having a greater competitive advantage and subsequent profitability.

**Hypothesis 2 (H2).** The relationship between a firm's ESG performance and its financial performance differs for large firms compared to SME firms.

## 3. Data and Methodology

# 3.1. Environmental, Social and Governance (ESG)

For this study, the firms' mostly voluntary ESG performance disclosure (ESG) is the principal predictor variable. The ESG disclosure score is used as a measure of a firm's ESG performance. The high demand for ESG-related information is reflected in several databases, such as Assets4, Bloomberg and RepRisk, providing ESG disclosure scores. Never-theless, inconsistencies exist in the scores awarded by these databases [73,74]. Bloomberg's measurement for scoring a firm's ESG performance is regarded as the most consistent metric among these databases [73]. Bloomberg's measuring scale is based on 120 indicators, including diverse environmental, social, and governance performance elements. This scaling system has been used in numerous academic papers [75,76]. Following Di Giuli and Kostovetsky [77], this study normalises the ESG scores to have a notional standard scale.

# 3.2. Sample and Data

Aggregated ESG performance data and disaggregated environmental (ENV), social (SOC) and governance (GOV) elements were gathered for all listed Australian firms from the Bloomberg database for the period 2007–2017. This period of data selection is uniform with the period used in past studies reflecting the model simulation period (e.g., Lys, Naughton and Wang [27], Bianchi, Cosenz and Marinković [28]). The reason why 2007 was the commencement date for data used in this study is that firms have mostly engaged in ESG disclosure activities since 2007 due to its availability and because of the GFC between 2008–2009 prompted firms to improve their ESG disclosure. Any firms that have not disclosed one of the ESG elements were not included in the analysis. A firm's return on assets (ROA) is the main proxy for financial performance. Other firms' specific financial data are used in the analysis. These data include total assets (LNTA) as a proxy for the size of the firm; property, plant and equipment (PPE); the firm's capital expenditure (capex); total revenue (growth); cash ratio (cash); and debt ratio (leverage). The details are provided in the attached Appendix A.

More than 125,000 items of data from Australian publicly listed firms between 2007 and 2017 were included in the initial sample. We matched the collected observations with the firm's ESG performance disclosure score after obtaining data on financial performance and other financial data. The data for the key variables were completed after excluding the missing data, which resulted in a total sample of 31,115 observations for 3422 publicly listed firms. Tables 1–3 show the firm sample composition by year, industry, and the descriptive statistics for each variable across all industries and firms, irrespective of firm size.

Descriptive statistics for this study are provided in Table 3. Variables are winsorized at a scale of 1% to 99% to control the influence of outliers. The ESG score variances provided in this table support the representative nature of the scores and the appropriateness of evaluating the impact of a firm's ESG performance on its financial performance.

Our methodology includes dividing the final sample into two subsamples of large and SME firms as a test for H2 as hypothesised. Zadeh and Eskandari [14] found that prior studies have separately used six different measures of firm size to test the association between firm size and level of disclosure. Shalit and Sankar [78] found that net total assets (NTA) may be interchangeable with equity as a measure of size. Therefore, for this longitudinal study for the period from 2007 to 2017, firm size was measured using the natural log of total assets (LNTA) based on Bloomberg's data. Table 4 dissects the

Sustainability 2022, 14, 6019 6 of 21

descriptive statistics for each variable into large (Panel A) and small to medium (SME) firms (Panel B), using the mean of LNTA as the dissection point.

Table 1. Composition of each sample year by Firm Size.

Year	Large Firms	SME Firms
2007	98	146
2008	106	161
2009	109	163
2010	116	167
2011	135	160
2012	145	159
2013	149	165
2014	159	181
2015	170	194
2016	186	184
2017	194	175
Total	1567	1855

This table represents the yearly composition of firms in the sample.

**Table 2.** Composition of each sample industry.

Year	Observations	%
Basic Materials	754	22%
Consumer Non- Cyclical	595	17%
Financial	575	17%
Energy	386	11%
Consumer Cyclical	377	11%
Industrial	351	10%
Communications	201	6%
Technology	108	3%
Utilities	57	2%
Diversified	18	1%
Total	3422	100%

This table represents the industry composition of firms in the sample.

Table 3. Descriptive statistics for variables.

	No.	Mean	Std	P25	Median	P75
ESG	3422	2.9293	0.4711	2.5413	2.8639	3.1939
ENV	1315	2.451	1.015	1.537	2.579	3.329
SOC	2020	3.062	0.68	2.759	3.201	3.507
GOV	2411	3.878	0.159	3.758	3.876	3.947
ROA	2422	1.9222	0.9488	1.4338	2.0073	2.5129
LNTA	3422	6.4935	2.147	5.0982	6.2964	7.7873
PPE	3422	0.6598	1.0661	0.0419	0.2241	0.8047
Capex	3422	0.224	0.6353	0.0101	0.0396	0.1545
Growth	3422	0.1074	0.6438	-0.005	0.0443	0.1779
Cash	3422	0.124	0.1424	0.0249	0.0658	0.1686
Leverage	3422	0.4286	0.2613	0.2553	0.4237	0.5757
0						

This table presents the descriptive statistics for all variables, including all firms. ESG, ENV, SOC, and GOV reflect firm aggregated ESG, environmental, social, and governance scores.

7 of 21 Sustainability 2022, 14, 6019

Panel A

Table 4. Panel A—statistics for variables of SME firms. Panel B—statistics for variables of Large firms.

	No.	Mean	Std	P25	Median	P75
ESG	1855	2.6697	0.3052	2.4275	2.6541	2.8871
ENV	295	1.5985	0.7643	0.8439	1.5371	2.0479
SOC	746	2.7474	0.6546	2.3538	2.9600	3.2011
GOV	1039	3.8001	0.1206	3.7578	3.7986	3.8756
ROA	1093	2.2181	0.9567	1.8089	2.3391	2.8215
LNTA	1855	4.9649	1.1852	4.3276	5.2202	5.8727
PPE	1855	0.6459	1.2431	0.0189	0.1391	0.6470
Capex	1855	0.2915	0.8188	0.0042	0.0288	0.1587
Growth	1855	0.1221	0.8182	0.0122	0.0256	0.2057
Cash	1855	0.1757	0.1658	0.0438	0.1163	0.2708
Leverage	1855	0.3418	0.2639	0.1419	0.3201	0.4899
Panel B						
	No.	Mean	Std	P25	Median	P75
ESG	1567	3.2147	0.4620	2.8638	3.1666	3.5983
ENV	1020	2.6975	0.9423	2.0479	2.9234	3.4975
SOC	1274	3.2462	0.6255	2.9600	3.3347	3.6531
GOV	1372	3.9367	0.1589	3.8379	3.8938	4.0455
ROA	1329	1.6787	0.8700	1.2117	1.7955	2.2577
LNTA	1567	8.3029	1.5372	7.1187	7.9511	9.0264
PPE	1567	0.6762	0.8080	0.0855	0.3523	0.9343
Capex	1567	0.1441	0.2755	0.0169	0.0515	0.1487
Growth	1567	0.0901	0.3351	-0.0181	0.0521	0.1516
Cash	1567	0.0627	0.0694	0.0169	0.0384	0.0831

This table presents the descriptive statistics for the variables for the SME and large firms.

0.5312

1567

Leverage

Table 4 presents the summary descriptive statistics for large and SME firms. Established statistics provided in Table 4 show an average ESG score range from 2.67 for SME firms to 3.21 for large firms. Additionally, variations ranged from 2.43 for SME firms to 2.86 for large firms at the 25th percentile, and 2.89 and 3.60, respectively, at the 75th percentile. Therefore, the statistics show sufficient variation in the ESG disclosure score between firms' sizes to examine the impact of firms' sizes on the association between corporate ESG performance and financial profitability.

0.2173

0.3863

0.5023

0.6658

This study utilises an accounting measure of return on assets (ROA) as a dependent variable, which Brooks and Oikonomou (2018) [20] recommended as the most accurate measure of accounting performance. ROA has been used in several sustainability studies to measure financial performance [79-81]. Therefore, this study follows Soana [81] and uses ROA to compare financial performance for large and SME firms.

# 3.3. Estimation Models

A panel regression analysis was applied to sample firms to examine the first hypothesis and provide responses to the respective research questions. Consistent with H1, we propose that a firm's ESG performance is positively related to profitability. Here, ROA is used as a proxy for firm profitability. The ROA is not a market-sensitive metric and is traditionally used for profitability comparisons between SME and large firms. The regression of ROA over a firm's ESG performance and its other disaggregated elements result in the comprehension of the potential economic impacts of ESG performance on a firm's profitability.

$$ROA_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_3 LNTA_{i,t} + \beta_2 PPE_{i,t} + \beta_4 CAPEX_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 CASH_{i,t} + \beta_5 LEVERAGE_{i,t} + IndustryFixedEffect_t + YearFixedEffect_t + \varepsilon_{it}$$
(1)

Sustainability **2022**, 14, 6019 8 of 21

Also, other characteristics of firms that impact operational performance and are used by Aggarwal et al. [82] are included in the analysis. In particular, the following characteristics are examined: the size of a firm, which is operationalized using the log of its total assets (LNTA); the property, plant, and equipment (PPE) using the PPE ratio; leverage based on the debt ratio with total liabilities as the numerator and total assets as the denominator; capital expenditure (capex) calculated through a firm's capital expenditure as the numerator and its total revenue as the denominator; a firm's growth represented by the percentage change in a firm's revenue between periods; and cash available denoted by the cash ratio, consisting of cash items in the balance sheet as the numerator and total assets as the denominator.

The LNTA in model 2 differs from that in model 1, where LNTA was the log of its total assets. In model 2, LNTA was employed in model 2 as a dichotomy of LNTA, based on the mean of LNTA, that provided large or SME-sized firms (large firms = 1 and SME firms = 0). This dissection of the firms into large and SME firms permitted the analysis to text Hypothesis 2. The findings from the panel analysis to appraise the second hypothesis are discussed in the following section.

$$ROA_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_3 LNTA_{i,t} + \beta_2 PPE_{i,t} + \beta_4 CAPEX_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 CASH_{i,t} + \beta_5 LEVERAGE_{i,t} + IndustryFixedEffect_t + YearFixedEffect_t + \epsilon_{it}$$
(2)

#### 4. Results

# 4.1. Main Regression Results

Regression analyses were conducted to test the two hypotheses as well as additional analyses to identify the impact of each of the three components of the overall ESG score individually on large and SME firms' financial performance. Tables 5–10 provide affirmative comments that confirm that both industry fixed effect and year fixed effect in the analysis controlled for any industry or time-variant attributes' impact or bias on the independent or dependent variables of this panel data analysis [83].

**Table 5.** Main regression results—aggregated ESG on ROA.

Variables	ROA
ESG	0.2625 ***
	(0.0523)
LNTA	-0.1659 ***
	(0.0141)
PPE	-0.0589 *
	(0.0323)
CAPEX	0.05823
	(0.0715)
GROWTH	0.1528 ***
	(0.0365)
CASH	0.5331 ***
	(0.1721)
LEVERAGE	-0.4063 ***
	(0.0981)
Const	2.4430 ***
	(0.1254)
Year FE	Yes
Industry FE	Yes
No of Obs	3422
Adj R-sq	0.1625

This table shows the main panel regression result of firms' profitability on their ESG score. Superscripts \*\*\* and \* indicate significance at 1% and 10% levels, respectively.

Sustainability **2022**, 14, 6019 9 of 21

Table 6. Baseline Large Versus SME Firm comparison analysis.

Variables	Model (1)	Model (2)
ESG	0.3778 ***	0.1165
	(0.0583)	(0.1017)
LNTA	-0.1738 ***	-0.0075
	(0.0189)	(0.0375)
PPE	-0.0264	-0.1558 ***
	(0.0385)	(0.0591)
CAPEX	0.0909	-0.1359
	(0.1233)	(0.1021)
GROWTH	0.1744 ***	0.1526 ***
	(0.0652)	(0.0460)
CASH	2.0574 ***	0.5725 **
	(0.3168)	(0.2293)
LEVERAGE	-0.7269 ***	0.0687
	(0.1191)	(0.1592)
Const	2.1719 ***	1.8489 ***
	(0.1592)	(0.3243)
Year FE	Yes	Yes
Industry FE	Yes	Yes
No of Obs	3422	3422
Adj R-sq	0.2156	0.2181

This table shows the main panel regression result of a firm's profitability on their ESG score. The first Columns (Model 1) report the panel regression result for large firms, and the second columns (Model 2) report the result for the SME firms. Superscripts \*\*\* and \*\* indicate statistical significance at 1% and 5% levels, respectively.

**Table 7.** Disaggregated ESG analysis—All companies.

Variables		RC	)A	
variables	(1)	(2)	(3)	(4)
ESG	0.2625 ***			
	(0.0523)			
ENV	,	0.1014 ***		
		(0.0302)		
SOC		, ,	0.1211 ***	
			(0.0376)	
GOV			, ,	0.6420 ***
				(0.1463)
LNTA	-0.1659 ***	-0.1690 ***	-0.1560***	-0.1655 ***
	(0.0141)	(0.1906)	(0.0145)	(0.0143)
PPE	-0.0589*	-0.0247	-0.0393	-0.0358
	(0.0323)	(0.0486)	(0.0404)	(0.0365)
Capex	0.05823	0.0355	0.0319	0.0176
•	(0.0715)	(0.1619)	(0.1119)	(0.0984)
Growth	0.1528 ***	0.4078 ***	0.1837 ***	0.15349 ***
	(0.0365)	(0.0840)	(0.0470)	(0.0433)
Cash	0.5331 ***	1.5740 ***	1.1654 ***	0.9608 ***
	(0.1721)	(0.3159)	(0.2183)	(0.1983)
Leverage	-0.4063 ***	-0.5652 ***	-0.5372 ***	-0.5447 ***
-	(0.0981)	(0.1384)	(0.1133)	(0.1080)
Const	2.4430 ***	3.0888 ***	2.8621 ***	0.8080
	(0.1254)	(0.1214)	(0.1186)	(0.5236)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No of Obs	2422	1097	1641	1918
Adj R-sq	0.1625	0.2557	0.2331	0.2206

This table shows the findings of firms' ROA on not only aggregated ESG performance but also disaggregated ESG elements: environmental (ENV), social (SOC) and governance (GOV). Superscript asterisks \*\*\* and \* represent 1% and 10% levels of significance, respectively.

Sustainability **2022**, 14, 6019

Table 8. Disaggregated ESG analysis—large companies.

Variables		RC	)A	
valiables	(1)	(2)	(3)	(4)
ESG	0.3778 ***			
	(0.0583)			
ENV	` ,	0.1189 ***		
		(0.0320)		
SOC		, ,	0.1633 ***	
			(0.0417)	
GOV			, ,	0.8853 ***
				(0.1675)
LNTA	-0.1738 ***	-0.1525***	-0.1353 ***	-0.1554 ***
	(0.0189)	(0.0213)	(0.1765)	(0.0188)
PPE	-0.0264	-0.0040	-0.0017	0.0007
	(0.0385)	(0.0500)	(0.0454)	(0.0408)
Capex	0.0909	0.0278	0.1118	0.0113
1	(0.1233)	(0.1687)	(0.1571)	(0.1320)
Growth	0.1744 ***	0.3718 ***	0.2047 ***	0.1714 **
	(0.0652)	(0.1140)	(0.0789)	(0.0696)
Cash	2.0574 ***	2.4600***	2.3738 ***	2.3902 ***
	(0.3168)	(0.4088)	(0.3465)	(0.3366)
Leverage	-0.7269 ***	-0.7528 ***	-0.6734 ***	-0.7069 ***
O .	(0.1191)	(0.1454)	(0.1287)	(0.1253)
Const	2.1719 ***	2.9259 ***	2.4969 ***	-0.2965
	(0.1592)	(0.1473)	(0.1540)	(0.5947)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No of Obs	2422	1097	1641	1918
Adj R-sq	0.2156	0.2155	0.2073	0.2116

This table shows the findings of large firms' ROA on not only aggregated ESG performance but also disaggregated ESG elements: environmental (ENV), social (SOC) and gofvvernance (GOV). Superscript asterisks \*\*\* and \*\* represent 1% and 5% levels of significance, respectively.

Table 9. Disaggregated ESG analysis—SME companies.

Variables		RO	OA	
variables	(1)	(2)	(3)	(4)
ESG	0.1165			
	(0.1017)			
ENV		-0.0713		
		(0.0822)		
SOC			-0.1266	
			(0.0818)	
GOV				0.2469
				(0.2794)
LNTA	-0.0075	0.2726 **	0.2531	0.0622
	(0.0375)	(0.1906)	(0.0647)	(0.0511)
PPE	-0.1558 ***	-0.2506	-0.2997	-0.2290 ***
	(0.0591)	(0.1801)	(0.1023)	(0.0821)
Capex	-0.1359	-0.1593	0.2551	0.0908
1	(0.1021)	(0.4818)	(0.1909)	(0.1605)
Growth	0.1526 ***	0.4859 ***	0.1938 ***	0.1328 **
	(0.0460)	(0.1391)	(0.0619)	(0.0568)
Cash	0.5725 **	0.5115	0.6349 **	0.6470 **
	(0.2293)	(0.5562)	(0.3138)	(0.2662)
Leverage	0.0687	0.1393	-0.2175	-0.2548
O	(0.1592)	(0.3902)	(0.2201)	(0.1940)
Const	1.8489 ***	0.7876	2.270 ***	1.0903
	(0.3243)	(0.7328)	(0.3908)	(1.0676)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No of Obs	2422	1097	1641	1918
Adj R-sq	0.2181	0.1056	0.0608	0.0459

This table shows the findings of SME firms' ROA on not only aggregated ESG performance but also disaggregated ESG elements: environmental (ENV), social (SOC) and governance (GOV). Superscript asterisks \*\*\* and \*\* represent 1% and 5% levels of significance, respectively.

Sustainability **2022**, 14, 6019

<b>Table 10.</b> Robustness analys	sıs—All cor	npanies.
------------------------------------	-------------	----------

Variables		RO	OA .	
variables	(1)	(2)	(3)	(4)
ESG	0.2325 ***			
	(0.0523)			
ENV	,	0.1014 ***		
		(0.0302)		
SOC		, ,	0.0611	
			(0.0376)	
GOV				0.6420 ***
				(0.1463)
LNTA	-0.1659 ***	-0.1690***	-0.1560***	-0.1656 ***
	(0.0141)	(0.0191)	(0.0135)	(0.0123)
PPE	-0.0569*	-0.0247	-0.0393	-0.0358
	(0.0313)	(0.0476)	(0.0401)	(0.0365)
Capex	0.0582	0.0355	0.0319	0.0176
	(0.0705)	(0.1619)	(0.1119)	(0.0984)
Growth	0.1582 ***	0.4078 ***	0.1837 ***	0.1349 ***
	(0.0361)	(0.0838)	(0.0468)	(0.0433)
Cash	0.5331 ***	1.5417 ***	1.1654 ***	0.9608 ***
	(0.1721)	(0.3159)	(0.2183)	(0.1983)
Leverage	-0.4063 ***	-0.5652 ***	-0.5373 ***	-0.5447 ***
	(0.0981)	(0.1374)	(0.1133)	(0.1080)
Const	2.4429 ***	3.0888 ***	2.8632 ***	0.8080
	(0.1254)	(0.1214)	(0.1185)	(0.5236)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
No of Obs	2422	1097	1641	1918
Adj R-sq	0.1620	0.2557	0.2231	0.2206

This table provides the results of examining the robustness of the estimation models. Superscript asterisks \*\*\* and \* indicate significance at the 1% and 10% levels, respectively.

# 4.1.1. Environmental, Social and Governance (ESG) Performance and Profitability

We use the ROA ratio as a proxy for firm profitability and to test our first estimation models. The results are presented in Table 5.

The firm's ESG performance coefficient of 0.2625 is significant at the 1% level statically (t-statistic = 5.02, standard error = 0.0523). These statistics support hypothesis (H1) that higher ESG performance is associated with higher profitability. The results show that a one-standard-deviation increase in the firm ESG performance leads to a 1.37% increase in ROA ( $0.0523 \times 0.2625$ ). Therefore, we conclude that a firm with higher ESG performance performs better financially over the full study period. These findings are consistent with recent literature [41,84-86]. The findings for other variables are also in line with the current findings in the literature, and their coefficients follow the same direction. In line with the findings of Aggarwal, Erel, Stulz and Williamson [83], negative correlations are found between ROA and LNTA and leverage. Furthermore, a positive correlation is found between ROA and the liquidity ratio (cash), representing the ratio of cash to total assets, which is consistent with Konijn et al. [87]. In line with the prediction by King and Santor [88], a positive correlation is found between ROA and revenue growth (growth) over time using panel data regression. Therefore, the first hypothesis of this study is supported.

# 4.1.2. Firm Size Analysis

Table 6 shows the firms' size comparison results for large firms (column a) and SME firms (column b) in testing H2 as hypothesized. The findings of column (a) partially support the association implied by H2 that large firms with higher ESG performance disclosure achieve higher profitability. Column (b) shows no significant findings, therefore, no support for the proposed association between higher ESG performance disclosure by SME firms

Sustainability **2022**, 14, 6019 12 of 21

and their achieving higher profitability, which supports the implicit difference between large and SME firms in H2. That is, a one standard deviation increase in ESG performance disclosure for large firms results in a 2.20% increase (0.0583  $\times$  0.3778) in profitability compared to no significant increase in profitability (ROA) for SME firms. Consequently, there is partial support for H2.

## 4.1.3. Additional Analyses

Additional follow-up analyses are used to identify which of the three ESG elements impact all firms' financial performance, large firms' financial performance, and SME firms' financial performance. The disaggregation of the three elements of firms' ESG scores assists in comprehending the three dimensions of ESG performance (ENV, SOC or GOV) has a significant association with all, large, and SME firms' profitability:

$$ROA_{i,t} = \beta_0 + \beta_1 ENV_{i,t} + \beta_3 LNTA_{i,t} + \beta_2 PPE_{i,t} + \beta_4 CAPEX_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 CASH_{i,t} + \beta_5 LEVERAGE_{i,t} + IndustryFixedEffect_t + YearFixedEffect_t + \epsilon_{it}$$
(3)

$$ROA_{i,t} = \beta_0 + \beta_1 SOC_{i,t} + \beta_3 LNTA_{i,t} + \beta_2 PPE_{i,t} + \beta_4 CAPEX_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 CASH_{i,t} + \beta_5 LEVERAGE_{i,t} + IndustryFixedEffect_t + YearFixedEffect_t + \epsilon_{it}$$

$$(4)$$

$$ROA_{i,t} = \beta_0 + \beta_1 GOV_{i,t} + \beta_3 LNTA_{i,t} + \beta_2 PPE_{i,t} + \beta_4 CAPEX_{i,t} + \beta_6 GROWTH_{i,t} + \beta_7 CASH_{i,t} + \beta_5 LEVERAGE_{i,t} + IndustryFixedEffect_t + YearFixedEffect_t + \varepsilon_{it}$$
(5)

The three corporate ESG performance disclosure elements results are presented in Table 7. The results show a strong relationship between a firm's environmental (ENV, column 2), social (SOC, column 3) and governance (GOV, column 4) elements and ROA for all firms at a statistical level of 1% significance. These results advocate the significant and favourable association between firms' ENV, SOC and GOV performance and ROA, which is consistent with prior literature and supports the stakeholder theory consistent by Nizam et al. [89]. The coefficient for ENV is positively correlated with ROA and statistically significant at the 1% level (*t*-statistic = 3.71).

Similar to the ENV, the SOC's coefficients show a positive relationship with ROA (t-statistic = 3.91). This is not consistent with prior studies that found that corporate social (SOC) performance negatively and significantly affects financial performance [90]. However, the latter study measured firm market performance by Tobin's Q, which may not reflect the actual financial performance of a firm because Tobin's Q estimates whether a given business or market is perceived to be overvalued or undervalued (i.e., the market value of a company divided by its assets' replacement cost). Also, Makni et al. [91] found no significant association between the six components of social performance (i.e., community and society, corporate governance, employees, customers, environment and human rights) and financial performance. The current study results are based on a composite index for SOC, which may explain the different results and reflect the overall impact of SOC performance disclosure. These findings reflect the lack of consensus over the past decade about the relationship between SOC and financial performance [21]. These scholars identified that the main cause of no consensus was the lack of uniform application of CSR and financial performance assessment methods with established linkages between CSR and financial performance. However, they did report that a positive (or neutral) relationship between CSR and financial results was observable in major studies. Therefore, the current SOC-ROA result is consistent with the majority of the prior studies.

Also, the coefficients for GOV show a favourable association with ROA (t-statistic = 5.29), which is in line with previous literature where firm governance is the primary force of a firm's sustainable behaviour [56,58].

With a robust negative coefficient, the firm's size (LNTA) shows the same results for all three ESG components for the other control variables. Conversely, there were favorable significant associations between not only all three ESG components and ROA but also growth (the firms' revenue growth) and cash (the firms' liquidity). In contrast, the PPE

Sustainability **2022**, 14, 6019

(property, plant, and equipment) ratio is associated negatively with the capital expenditure ratio (capex), reporting a positive association, and the results show no significant association for all three ESG components. Also, there is a significant negative associated between leverage and ROA for all three ESG components. The other variables' findings for all disaggregated elements of ESG performance are reported consistently.

Results for the three elements of firms' disclosed ESG performance associations with either large or SME firms' financial performance, separately, are presented in Tables 8 and 9.

The three ESG and financial performance for large firms show significant results in Table 8, similar to the findings reported in Table 7. However, no significant associations are found (as presented in Table 9) for aggregated and the three ESG elements and SME firms' financial performance.

#### 5. Robustness Tests

A number of tests were run to evaluate the findings' accuracy. The robustness test results, discussed below, support the main hypotheses.

We follow Fatemi, Glaum and Kaiser [31], Attig et al. [92], and El Ghoul et al. [93] in using the instrumental variable (IV) method to re-evaluate our main estimation models and then report the results. Considering that firms demonstrating better operational performance in the past appear to maintain a higher ESG disclosure score, the IV approach helps control any potential endogeneity bias initiated by reverse causality. It is also important to consider the impact on the results of unobserved firm-specific variables or missing elements [94]. This concern is properly addressed by including year and industry fixed effect, therefore including time-invariant unobservable heterogeneity. More than that, this study includes additional endogeneity analysis to address these issues. Following the previous literature by Cheng et al. [95], and Gupta and Krishnamurti [96], we performed a simultaneous equation model to find the appropriate instrument by using yearly means of firms' ESG performance disclosure as an instrument, recommended by Cheng, Ioannou and Serafeim [95]. This independent variable is likely to be exogenous to the firm's ESG performance level. The results are presented in Tables 10 and 11.

**Variables ROA** 1/VIF VIF VIF 1/VIF VIF 1/VIF VIF 1/VIF ESG 2.0087 0.4978**ENV** 1.7115 0.5843 SOC 1.2855 0.7779 1.6257 GOV 0.6151 2.7287 2.5551 0.3914 1.9733 LNTA 0.3665 0.5068 2.42 0.4132 PPE 2.2071 2.402 2.2694 2.1882 0.45310.4163 0.44070.457Capex 2.0762 0.4816 2.1903 0.4566 2.0547 0.4867 1.9715 0.5072 1.0334 1.0345 0.9675 Growth 0.9677 0.9667 1.026 0.9747 1.0336 Cash 1.294 0.7728 1.2113 0.8256 1.2802 0.7811 0.7772 1.2876 1.5163 0.6595 1.7566 0.5692 1.5825 0.6319 1.6022 0.6241 Leverage Mean VIF value 1.8378 0.5998 1.8374 0.6014 1.6388 0.6613 1.7325 0.6230

Table 11. Variance inflation factor (VIF) analysis.

This table provides the results of the VIF test. The mean VIF value is the average value of the statistics.

In line with the main results, the robustness analysis (presented in Table 10) shows that ESG performance is favourably associated with ROA (*t*-statistic = 5.02). This shows that endogeneity does not drive our main findings. The robustness tests for the other disaggregated ESG performance elements follow the main results in our estimation models in Table 7.

Following control procedures by Brogi and Lagasio [84], and Kim et al. [97], we control for multicollinearity in the estimation models. Multicollinearity conducts the variance inflation factor (VIF) test and presents the results in Table 11. The VIF test spans values

Sustainability **2022**, 14, 6019 14 of 21

from 1 and above. The higher the VIF value, the less trustworthy the estimation model is. Any VIF value higher than 10 is a sign of serious multicollinearity that needs further investigation [98]. The results of running the VIF test for the main models show values less than 3. This supports the fact that the estimation models in this study are far removed from having multicollinearity issues, confirming the reliability of the regression analysis.

#### 6. Discussion

The aim of this study was to investigate whether firms' ESG performance is related to enhanced financial performance and whether this association differs between large and SME firms. This study sheds light on the importance of a firm's ESG performance in improving its sustainable behaviour globally by broadening scholarly understanding related to legitimacy theory. As noted earlier, the managerial branch of stakeholder theory suggests that poor ESG efforts of stakeholder groups will be influenced by threats to firms' ongoing survival [5], whereas strong ESG efforts predict increased company reputation, maintain accountability [39], and improve financial performance [9,99]. The reality is that ESG scores and their measures are also dependent on significant resources for providing ESG data [22].

A better understanding of the associations between three disaggregated elements of a firm's ESG performance (environmental, social and governance) and financial performance is achieved by expanding this panel data regression model analysis by the inclusion of years and industry effects. The inclusion of these effects in the estimation models invalidates any anxieties about the unobserved time-invariant or missing variables. Furthermore, alternative ESG performance disclosure measures were used and the results remain strong, which were confirmed after utilizing the instrumental variable (IV) approach.

The findings support a positive association between firms' aggregated ESG performance and profitability consistent with the first hypothesis. Of particular relevance was the strength of the results over ten years using panel data clearly illustrating the associa-tion between ESG and firm performance and perhaps bringing into question economic data collection at a single point in time. Therefore, the results may indicate that over shorter periods, e.g., one year -notwithstanding positive correlations of previous studies- the referent of ESG-performance associations are individuals' reflections as aggregated indicators only of the effects of ESG on performance, can be questioned. In the current study, however, all firms' ESG performance elements show a positive relationship with profitability for large firms but not SME firms. These findings are consistent with prior studies by Dalton, Daily, Johnson and Ellstrand [56] and later by Nollet, Filis and Mitrokostas [58] that firm's governance is the primary force of ESG performance. However, this paper's novel contribution to time-based data adds to this substantive literature about the importance of longitudinal data to measure ESG and firm performance. For instance, we broaden existing research by Klein and Zwergel [22], and Rabaya and Saleh [58] that ESG scores alone do not accurately reflect a firm's sustainability performance. Even while larger firms have greater resources to access ESG data, this may not be enough to accurately measure sustainable ESG performance. Rather, our findings suggest that the longitudinal nature of panel data is a far more accurate prediction of ESG performance criteria justifying the approach taken in this study. We contend that a better overall reflection of firms' ESG measures over time may in fact help those firms to achieve a sustainability competitive advantage.

The results for H2 show no significant association between any of the three components of ESG, either individually or collectively, for the overall ESG performance index and profitability, in relation to SME firms. This is inconsistent with the motivations explanation of both legitimacy and stakeholder theories and the underlying unwritten social contract. The main inconsistency with the results revolves around the reciprocal arrangement from gaining legitimacy or satisfying stakeholders' internal value chain (or supply chain) needs. Stakeholder theory argues that firms are motivated by the association between ESG and increased profitability because downstream customer stakeholders should impact the firms' profitability. However, in interpreting the results related to H2, the incremental increased

Sustainability **2022**, 14, 6019 15 of 21

cost of gathering and disclosing the information may exceed the incremental increase in profitability. Given this study's very large sample size (n = 3422), aspects of legitimacy and stakeholder theory [5,6] can be questioned the perceived theoretical social contract between stakeholders and the community in relation to community ESG expectations. Therefore, the results of this study challenge claim through traditional legitimacy and stakeholder theory that ESG performance may be improved because of these associations, particularly among the SME data included in this study.

However, existing studies help to explain H2 results partially. Bianchi, et al. [28] reported that financial performance improved through a model simulation by using a dynamic performance management system (DPM) approach over eight years (2012–2020). DPM was a performance management system designed to pursue sustainable development in SMEs tailored to the characteristics of SMEs "that may be differentiated from large companies". However, DPM may be a cost that exceeds the available resources of many SME firms. Second, Rabaya and Saleh [59] found that integrated reporting (IR) had a mediating strengthening effect on the association between ESG and a firm's competitive advantage. They suggested that the IR format may help stakeholders understand the association between sustainability practices and the firm's increased performance and value.

Also, SMEs may not practice IR and therefore are not bound or motivated to the same extent to comply with ESG performance links, where prior research has found that only size was a significant positive predictor of social disclosure practices [100]. For instance, while corporations are said to lack an integrated analytical framework for creating indicators and indices for measuring enterprise sustainability [34,101], SME firms may be similarly situated plus lack the incentive that larger firms gain through regular use of audit committees and influence from a higher proportion of non-executive directors that help to increase ESG disclosure [102]. This is in addition to the environmental and social implications of non-compliance. Put simply, SMEs may lack the same level of stakeholder engagement and feedback from stakeholders to improve decision making and accountability such that external perceptions from society matter through a legitimacy theory lens [103]. Similarly, not only do SMEs lack resources for providing ESG data [22], but there is also a misunderstanding of sustainability leadership practices [104] required to implement sustainable ESG outcomes.

Also, the small customer base in a limited market and the reactionary characteristics of SMEs, described in prior literature (e.g., Hudson et al. [105], and Janang et al. [106]), may be the source of SMEs not practising IR and disclosure practices such that ESG disclosure may not have the same level of impact on the profitability of SME firms as previously thought.

# 6.1. Implications for Practice

This study has several implications for firms, market participants, other stakeholders, and regulators. Firms' primary and favourable implication is that improving ESG performance could enhance a firm's financial performance in the long run. Therefore, corporate ESG performance benefits shareholders and other stakeholders of large firms and creates a win-win situation. Managers should thus try to improve corporate ESG performance disclosure to foster sustainable profitability, and corporate governance should be integrated into long-term corporate strategies to sustain positive implications for financial performance. For SMEs, our study found that they do not receive financial performance benefits from ESG disclosure. Similarly, the findings of this study have practical implications for managers and stakeholders more generally. Improvement in the firm's ESG performance benefits financial performance and therefore is also beneficial for shareholders and other stakeholders in the long run [63,106]. Managers must target enhancing ESG performance to impact sustainability. Integrating firm governance into long-term strategies is more likely to enhance firms financially over time.

Regulators, furthermore, should continue to promote the responsible conduct of SMEs to enhance ESG awareness, particularly in relation to legitimacy and the sustainable expectations of society [34]. While the current study found no association between ESG and

Sustainability **2022**, 14, 6019 16 of 21

performance for SMEs, this suggests that ESG-performance strategies are an opportunity for SME owners and managers. While resources, time and energy and other factors influence the ESG-performance link, regulators might result in future support for firms' ESG performance by adopting medium-sized firms' disclosure based on social and environmental standards. These regulations should be introduced to encourage firms to drive environmental awareness. It could also be extended by enhancing investment in firms with higher ESG performance, new sustainable products with better ESG-related features and higher stakeholder interaction, irrespective of size.

# 6.2. Theoretical Implications for Future Research

Future research can be extended to include unlisted firms or SMEs with diverse reputational viewpoints from those of large firms. Future research can also evaluate how different economic and market conditions influence a firm's ESG-performance association with profitability, such as those in emerging economies. However, consistent with our contributions to research, future research should consider taking advantage of the availability of data relating to, not just Australian firms but, any country's publicly listed data to derive a strong population for research. This is particularly relevant to longitudinal data. Future research may then be able to replicate the current study by including their own variables for panel regression analysis, thus helping to confirm the current research approach.

The proposed European Directive 2021/01014, that has been under discussion through seven discussion stages within the council of European Union since 20 April 2021 until 23 February 2022, highlights ESG's disclosure importance for European-based firms, including SMEs.

Riva et al. [107] concluded that the communication of non-financial information by SMEs has a dual objective. The disclosure demonstrated, firstly, the existence of a corporate governance structure and, secondly, represented a management and accounting tool had been designed to function adequately to ensure a firm operates as a going concern. They extend their argument with the comment that it is essential that firms know how to communicate with stakeholders, which may be clearly illustrated through financial and non-financial data in the form of a dashboard. These dashboards provide readers with not only an indication of whether the company is healthy, or otherwise, but also whether it is capable of coping with critical macro and microeconomic issues that may have arisen as a result of a pandemic, which is an exogenous factor to the firm. Future research accordingly should include an investigation into the motivations of ESG reporting by SME firms, especially during this period of ongoing uncertainty caused by COVID on profitability.

# 6.3. Limitations of the Study

There are two limitations. First, while several firms' financial characteristics (such as LNTA, PPE, cash, and leverage) are contained within this study's analysis, other moderating characteristics are not included. For example, different ownership structures, the presence of an ESG committee, or the competition in the market can potentially impact firms' ESG performance. Second, the sample involves only publicly listed firms, which hinders the generalizability of the results.

#### 7. Conclusions

This study examined the ESG performance of large and SME firms, finding that ESG performance has a positive relationship with profit in large firms but not in SME firms. The authors found that while some of these findings are consistent with prior studies as discussed, SME firms' priorities for collecting ESG data differ significantly compared to large firms' aspirational and environmental needs. For instance, we noted throughout that the large firms are motivated by stakeholder and other needs, while SME firms do not have the same priorities. Similarly, small and nascent firms may not have the resources of large firms, suggesting that competitive factors related to downstream networking will

Sustainability **2022**, 14, 6019 17 of 21

markedly differ for both groups of firms. Moreover, this study highlights the value of using longitudinal data and the results help to broaden existing research related to interpreting the ESG initiatives and priorities of firms more generally.

**Author Contributions:** A.G. contribution was the conceptualization, methodology and formal analysis, and writing original draft. P.A.M. contribution was writing original draft and review and editing. J.S. contribution was the conceptualization, methodological design, writing original draft, and review and editing. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Informed Consent Statement:** Not applicable.

**Data Availability Statement:** The secondary source of the data examined was extracted from Bloomberg's database.

**Conflicts of Interest:** The authors declare no conflict of interest.

## Appendix A

Table A1. Variable Definitions.

Category	Measure	Definition/Measurement
Environmental, Social and Governance score	ESG	Calculated based on 120 indicators, including three elements of environmental, social and governance
	ENV	Environmental scores include GHG emissions, water, energy, biodiversity, products & services, and compliance
	SOC	Social score includes labour engagement and related decent work, society, human rights and product responsibility
	GOV	The governance score includes over-boarding and executive compensation
Firm profitability	ROA	An indicator of firm profitability percentage named Return on Assetscalculated based on the earnings before interest and tax (EBIT) devided by total assets earnings before interest and taxes (TA) $ROA = \frac{EBIT}{TA}$
Firm characteristics: Firm size	LNTA	Natural logarithm of total assets
Leverage	Leverage	Natural logarithm of total assets Leverage or debt ratio measured as total debts divided by total assets
Property, plant, and equipment	PPE	Property, plant, and equipment to total sales
Capital expenditure Revenue growth Cash	Capex Growth Cash	Capital expenditure divided by total sales Percentage change in sales over the prior year Cash divided by total assets

Source: Bloomberg database.

# References

- 1. Chae, B.K.; Park, E.O. Corporate social responsibility (CSR): A survey of topics and trends using Twitter data and topic modeling. Sustainability 2018, 10, 2231. [CrossRef]
- 2. Eberle, D.; Berens, G.; Li, T. The impact of interactive corporate social responsibility communication on corporate reputation. *J. Bus. Ethics* **2013**, *118*, 731–746. [CrossRef]
- 3. Heal, G. Corporate social responsibility: An economic and financial framework. *Geneva Pap. Risk Insur.-Issues Pract.* **2005**, *30*, 387–409. [CrossRef]
- 4. Vartiak, L. CSR reporting of companies on a global scale. Procedia Econ. Financ. 2016, 39, 176–183. [CrossRef]

Sustainability **2022**, 14, 6019 18 of 21

5. Donaldson, T.; Preston, L.E. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Acad. Manag. Rev.* **1995**, *20*, 65–91. [CrossRef]

- 6. Jones, T.M. Instrumental stakeholder theory: A synthesis of ethics and economics. Acad. Manag. Rev. 1995, 20, 404–437. [CrossRef]
- Krishnamurti, C.; Shams, S.; Velayutham, E. Corporate social responsibility and corruption risk: A global perspective. J. Contemp. Account. Econ. 2018, 14, 1–21. [CrossRef]
- 8. Limkriangkrai, M.; Koh, S.; Durand, R.B. Environmental, social, and governance (ESG) profiles, stock returns, and financial policy: Australian evidence. *Int. Rev. Financ.* **2017**, *17*, 461–471. [CrossRef]
- Dellaportas, S.; Langton, J.; West, B. Governance and accountability in Australian charitable organisations: Perceptions from CFOs. Int. J. Account. Inf. Manag. 2012, 20, 238–254. [CrossRef]
- 10. Forcadell, F.J.; Aracil, E. European Banks' Reputation for Corporate Social Responsibility. *Corp. Soc. Responsib. Environ. Manag.* **2017**, 24, 1–14. [CrossRef]
- 11. Nazari, J.A.; Hrazdil, K.; Mahmoudian, F. Assessing social and environmental performance through narrative complexity in CSR reports. *J. Contemp. Account. Econ.* **2017**, 13, 166–178. [CrossRef]
- 12. Whelan, T.; Atz, U.; Van Holt, T.; Clark, C. ESG and financial performance. In *Uncovering the Relationship by Aggregating Evidence from 1000 Plus Studies Published between 2015–2020*; NYU Stern Center for Sustainable Business: New York, NY, USA, 2021; Volume 1, pp. 2015–2020.
- 13. Margolis, J.D.; Walsh, J.P. Misery loves companies: Rethinking social initiatives by business. *Adm. Sci. Q.* **2003**, *48*, 268–305. [CrossRef]
- 14. Zadeh, F.O.; Eskandari, A. Firm size as company's characteristic and level of risk disclosure: Review on theories and literatures. *Int. J. Bus. Soc. Sci.* **2012**, *3*, 9–17.
- 15. Al Fadli, A.; Sands, J.; Jones, G.; Beattie, D. Board independence and CSR reporting: Pre and post analysis of JCGC 2009. *Int. J. Law Man.* 2020, 62, 117–138. [CrossRef]
- 16. Friede, G.; Busch, T.; Bassen, A. ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *J. Sustain. Financ. Invest.* **2015**, *5*, 210–233. [CrossRef]
- 17. Harjoto, M.; Laksmana, I.; Lee, R. Board diversity and corporate social responsibility. J. Bus. Ethics 2015, 132, 641-660. [CrossRef]
- 18. Gholami, A.; Sands, J.; Rahman, H.U. Environmental, Social and Governance disclosure and value generation: Is the financial industry different? *Sustainability* **2022**, *14*, 2647. [CrossRef]
- 19. Gholami, A.; Sands, J.; Shams, S. Corporates' sustainability disclosures impact on cost of capital and idiosyncratic risk. *Meditari Account. Res.* 2022, in press. [CrossRef]
- 20. Brooks, C.; Oikonomou, I. The effects of environmental, social and governance disclosures and performance on firm value: A review of the literature in accounting and finance. *Br. Account. Rev.* **2018**, *50*, 1–15. [CrossRef]
- 21. Barauskaite, G.; Streimikiene, D. Corporate social responsibility and financial performance of companies: The puzzle of concepts, definitions and assessment methods. *Corp. Soc. Responsib. Environ. Manag.* **2021**, *28*, 278–287. [CrossRef]
- 22. Drempetic, S.; Klein, C.; Zwergel, B. The influence of firm size on the ESG score: Corporate sustainability ratings under review. *J. Bus. Ethics* **2020**, *167*, 333–360. [CrossRef]
- 23. Chen, J.C.; Roberts, R.W. Toward a More Coherent Understanding of the Organization-Society Relationship: A Theoretical Consideration for Social and Environmental Accounting Research. *J. Bus. Ethics* **2010**, *97*, 651–665. [CrossRef]
- 24. Dunfee, T.W. A critical perspective of integrative social contracts theory: Recurring criticisms and next generation research topics. *J. Bus. Ethics* **2006**, *68*, 303–328. [CrossRef]
- 25. Hofstede, G. Dimensions of national cultures in fifty countries and three regions. Behav. Sci. Res. 1983, 18, 285–305. [CrossRef]
- 26. Gray, S.J. Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus* **1988**, 24, 1–15. [CrossRef]
- 27. Lys, T.; Naughton, J.P.; Wang, C. Signaling through corporate accountability reporting. J. Account. Econ. 2015, 60, 56–72. [CrossRef]
- 28. Bianchi, C.; Cosenz, F.; Marinković, M. Designing dynamic performance management systems to foster SME competitiveness according to a sustainable development perspective: Empirical evidences from a case-study. *Int. J. Bus. Perform. Manag.* **2015**, *16*, 84–108. [CrossRef]
- 29. Amato, L.H.; Amato, C.H. Retail philanthropy: Firm size, industry, and business cycle. J. Bus. Ethics 2012, 107, 435–448. [CrossRef]
- 30. Nelling, E.; Webb, E. Corporate social responsibility and financial performance: The "virtuous circle" revisited. *Rev. Quant. Financ. Account.* **2009**, 32, 197–209. [CrossRef]
- 31. Fatemi, A.; Glaum, M.; Kaiser, S. ESG performance and firm value: The moderating role of disclosure. *Glob. Financ. J.* **2018**, *38*, 45–64. [CrossRef]
- 32. Freeman, R.E.; Liedtka, J. Corporate social responsibility: A critical approach. *Bus. Horiz.* 1991, 34, 92–99. [CrossRef]
- 33. Deegan, C. Financial Accounting, 9th ed.; McGraw-Hill Education: Sydney, Australia, 2020.
- 34. Lokuwaduge, C.S.D.S.; Heenetigala, K. Integrating environmental, social and governance (ESG) disclosure for a sustainable development: An Australian study. *Bus. Strategy Environ.* **2017**, *26*, 438–450. [CrossRef]
- 35. Mathews, M.R. Social and Environmental Accounting: A Practical Demonstration of Ethical Concern? *J. Bus. Ethics* **1995**, *14*, 663–671. [CrossRef]
- Loewe, M.; Zintl, T.; Houdret, A. The social contract as a tool of analysis: Introduction to the special issue on "Framing the evolution of new social contracts in Middle Eastern and North African countries". World Dev. 2021, 145, 104982. [CrossRef]

Sustainability **2022**, 14, 6019 19 of 21

- 37. Dunfee, T.W.; Smith, N.C.; Ross, W.T., Jr. Social contracts and marketing ethics. J. Mark. 1999, 63, 14–32. [CrossRef]
- 38. Mitchell, R.K.; Agle, B.R.; Wood, D.J. Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts. *Acad. Manag. Rev.* **1997**, 22, 853–886. [CrossRef]
- 39. Said, R.; Zainuddin, Y.; Haron, H. The relationship between corporate social responsibility disclosure and corporate governance characteristics in Malaysian public listed companies. *Soc. Responsib. J.* **2009**, *5*, 212–226. [CrossRef]
- 40. Deegan, C. Financial Accounting Theory, 4th ed.; McGraw-Hill Education Australia: North Ryde, Australia, 2014.
- 41. Margolis, J.D.; Elfenbein, H.A.; Walsh, J.P. Does It Pay to Be Good... and Does It Matter? A Meta-Analysis of the Relationship between Corporate Social and Financial Performance. 2009. Available online: https://ssrn.com/abstract=1866371 (accessed on 14 March 2022).
- 42. Revelli, C.; Viviani, J.L. Financial performance of socially responsible investing (SRI): What have we learned? A meta-analysis. *Bus. Ethics Eur. Rev.* **2015**, 24, 158–185. [CrossRef]
- 43. Van Beurden, P.; Gössling, T. The worth of values—A literature review on the relation between corporate social and financial performance. *J. Bus. Ethics* **2008**, *82*, 407–424. [CrossRef]
- 44. Aupperle, K.E.; Carroll, A.B.; Hatfield, J.D. An empirical examination of the relationship between corporate social responsibility and profitability. *Acad. Manag. J.* **1985**, *28*, 446–463.
- 45. McWilliams, A.; Siegel, D. Corporate social responsibility and financial performance: Correlation or misspecification? *Strateg. Manag. J.* **2000**, *21*, 603–609. [CrossRef]
- 46. Russo, M.V.; Fouts, P.A. A resource-based perspective on corporate environmental performance and profitability. *Acad. Manag. J.* **1997**, 40, 534–559.
- 47. King, A.; Lenox, M. Exploring the locus of profitable pollution reduction. Manag. Sci. 2002, 48, 289–299. [CrossRef]
- 48. Albertini, E. Does environmental management improve financial performance? A meta-analytical review. *Organ. Environ.* **2013**, 26, 431–457. [CrossRef]
- 49. Dixon-Fowler, H.R.; Ellstrand, A.E.; Johnson, J.L. The role of board environmental committees in corporate environmental performance. *J. Bus. Ethics* **2017**, *140*, 423–438. [CrossRef]
- 50. Endrikat, J.; Guenther, E.; Hoppe, H. Making sense of conflicting empirical findings: A meta-analytic review of the relationship between corporate environmental and financial performance. *Eur. Manag. J.* **2014**, *32*, 735–751. [CrossRef]
- 51. Freeman, R.E. Strategic Management: A Stakeholder Approach; Cambridge University Press: Cambridge, UK, 1984.
- 52. Crook, T.R.; Ketchen, D.J.; Combs, J.G.; Todd, S.Y. Strategic resources and performance: A meta-analysis. *Strateg. Manag. J.* **2008**, 29, 1141–1154. [CrossRef]
- 53. Fatemi, A.; Fooladi, I.; Tehranian, H. Valuation effects of corporate social responsibility. *J. Bank. Financ.* **2015**, *59*, 182–192. [CrossRef]
- 54. Kim, Y.; Li, H.; Li, S. Corporate social responsibility and stock price crash risk. J. Bank. Financ. 2014, 43, 1–13. [CrossRef]
- 55. Paredes-Gazquez, J.D.; Rodriguez-Fernandez, J.M.; de la Cuesta-Gonzalez, M. Measuring corporate social responsibility using composite indices: Mission impossible? The case of the electricity utility industry. *Rev. Contab.* **2016**, *19*, 142–153. [CrossRef]
- 56. Dalton, D.R.; Daily, C.M.; Johnson, J.L.; Ellstrand, A.E. Number of directors and financial performance: A meta-analysis. *Acad. Manag. J.* **1999**, 42, 674–686.
- 57. Kang, J.-K.; Shivdasani, A. Firm performance, corporate governance, and top executive turnover in Japan. *J. Financ. Econ.* **1995**, 38, 29–58. [CrossRef]
- 58. Nollet, J.; Filis, G.; Mitrokostas, E. Corporate social responsibility and financial performance: A non-linear and disaggregated approach. *Econ. Model.* **2016**, *52*, 400–407. [CrossRef]
- 59. Rabaya, A.J.; Saleh, N.M. The moderating effect of IR framework adoption on the relationship between environmental, social, and governance (ESG) disclosure and a firm's competitive advantage. *Environ. Dev. Sustain.* **2022**, 24, 2037–2055. [CrossRef]
- 60. Lavie, D.; Stettner, U.; Tushman, M.L. Exploration and exploitation within and across organizations. *Acad. Manag. Ann.* **2010**, *4*, 109–155. [CrossRef]
- 61. Cormier, D.; Magnan, M. Corporate environmental disclosure strategies: Determinants, costs and benefits. *J. Account. Audit. Financ.* 1999, 14, 429–451. [CrossRef]
- 62. Yoon, B.; Chung, Y. The effects of corporate social responsibility on firm performance: A stakeholder approach. *J. Hosp. Tour. Manag.* **2018**, 37, 89–96. [CrossRef]
- 63. Brown, N.; Deegan, C. The public disclosure of environmental performance information—A dual test of media agenda setting theory and legitimacy theory. *Account. Bus. Res.* **1998**, *29*, 21–41. [CrossRef]
- 64. Friedman, M.; Mackey, J.; Rodgers, T.J. Rethinking the social responsibility of business: A reason debate featuring Milton Friedman, Whole Foods' John Mackey, and Cypress Semiconductor's T.J. Rodgers. *Reason* **2005**, *37*, 28–37.
- 65. Clark, G.L.; Viehs, M. The Implications of Corporate Social Responsibility for Investors: An Overview and Evaluation of the Existing CSR Literature. 2014. Available online: https://ssrn.com/abstract=2481877 (accessed on 11 March 2022).
- 66. Eccles, R.G.; Ioannou, I.; Serafeim, G. The impact of corporate sustainability on organizational processes and performance. Management Science. *Manag. Sci.* **2014**, *60*, 2835–2857. [CrossRef]
- 67. Griffin, J.J.; Mahon, J.F. The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research. *Bus. Soc.* **1997**, *36*, 5–31. [CrossRef]

Sustainability **2022**, 14, 6019 20 of 21

68. Cheng, S.; Lin, K.Z.; Wong, W. Corporate social responsibility reporting and firm performance: Evidence from China. *J. Manag. Gov.* **2016**, 20, 503–523. [CrossRef]

- 69. Giannarakis, G.; Konteos, G.; Zafeiriou, E.; Partalidou, X. The impact of corporate social responsibility on financial performance. *Invest. Manag. Financ. Innov.* **2016**, *13*, 171–182. [CrossRef]
- 70. Konar, S.; Cohen, M.A. Does the market value environmental performance? Rev. Econ. Stat. 2001, 83, 281–289. [CrossRef]
- 71. Cornett, M.M.; Erhemjamts, O.; Tehranian, H. Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of US commercial banks around the financial crisis. *J. Bank. Financ.* **2016**, *70*, 137–159. [CrossRef]
- 72. Kotsantonis, S.; Pinney, C.; Serafeim, G. ESG integration in investment management: Myths and realities. *J. Appl. Corp. Financ.* **2016**, *28*, 10–16.
- 73. Halbritter, G.; Dorfleitner, G. The wages of social responsibility—Where are they? A critical review of ESG investing. *Rev. Financ. Econ.* **2015**, 26, 25–35. [CrossRef]
- 74. Semenova, N.; Hassel, L.G. On the validity of environmental performance metrics. J. Bus. Ethics 2015, 132, 249–258. [CrossRef]
- 75. Baldini, M.; Maso, L.D.; Liberatore, G.; Mazzi, F.; Terzani, S. Role of country- and firm-level determinants in environmental, social, and governance disclosure. *J. Bus. Ethics* **2018**, *150*, 79–98. [CrossRef]
- 76. Li, Y.; Gong, M.; Zhang, X.-Y.; Koh, L. The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *Br. Account. Rev.* **2018**, *50*, 60–75. [CrossRef]
- 77. Di Giuli, A.; Kostovetsky, L. Are red or blue companies more likely to go green? Politics and corporate social responsibility. *J. Financ. Econ.* **2014**, *111*, 158–180. [CrossRef]
- 78. Shalit, S.S.; Sankar, U. The measurement of firm size. Rev. Econ. Stat. 1977, 59, 290–298. [CrossRef]
- 79. Barnett, M.L.; Salomon, R.M. Does it pay to be really good? Addressing the shape of the relationship between social and financial performance. *Strateg. Manag. J.* **2012**, 33, 1304–1320. [CrossRef]
- 80. Simpson, W.; Kohers, T. The link between corporate social and financial performance: Evidence from the banking industry. *J. Bus. Ethics* **2002**, *35*, 97–109. [CrossRef]
- 81. Soana, M.-G. The relationship between corporate social performance and corporate financial performance in the banking sector. *J. Bus. Ethics* **2011**, *104*, 133–148. [CrossRef]
- 82. Aggarwal, R.; Erel, I.; Stulz, R.; Williamson, R. Differences in governance practices between US and foreign firms: Measurement, causes, and consequences. *Rev. Financ. Stud.* **2010**, 23, 3131–3169. [CrossRef]
- 83. Torres-Reyna, O. Panel data analysis fixed and random effects using Stata (v. 4.2). In *Data & Statistical Services*; Priceton University: Priceton, NJ, USA, 2007; p. 112.
- 84. Brogi, M.; Lagasio, V. Environmental, social, and governance and company profitability: Are financial intermediaries different? *Corp. Soc. Responsib. Environ. Manag.* **2019**, *26*, 576–587. [CrossRef]
- 85. Busch, T.; Friede, G. The robustness of the corporate social and financial performance relation: A second-order meta-analysis. *Corp. Soc. Responsib. Environ. Manag.* **2018**, 25, 583–608. [CrossRef]
- 86. Harjoto, M.; Laksmana, I. The impact of corporate social responsibility on risk taking and firm value. *J. Bus. Ethics* **2018**, 151, 353–373. [CrossRef]
- 87. Konijn, S.J.; Kräussl, R.; Lucas, A. Blockholder dispersion and firm value. J. Corp. Financ. 2011, 17, 1330–1339. [CrossRef]
- 88. King, M.R.; Santor, E. Family values: Ownership structure, performance and capital structure of Canadian firms. *J. Bank. Financ.* **2008**, 32, 2423–2432. [CrossRef]
- 89. Nizam, E.; Ng, A.; Dewandaru, G.; Nagayev, R.; Nkoba, M.A. The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. *J. Multinatl. Financ. Manag.* **2019**, *49*, 35–53. [CrossRef]
- 90. Zhong, W.; Jiang, T. Can internet finance alleviate the exclusiveness of traditional finance? evidence from Chinese P2P lending markets. *Financ. Res. Lett.* **2021**, *40*, 101731. [CrossRef]
- 91. Makni, R.; Francoeur, C.; Bellavance, F. Causality between corporate social performance and financial performance: Evidence from Canadian firms. *J. Bus. Ethics* **2009**, *89*, 409–422. [CrossRef]
- 92. Attig, N.; El Ghoul, S.; Guedhami, O.; Suh, J. Corporate social responsibility and credit ratings. *J. Bus. Ethics* **2013**, *117*, 679–694. [CrossRef]
- 93. El Ghoul, S.; Guedhami, O.; Kwok, C.C.Y.; Mishra, D.R. Does corporate social responsibility affect the cost of capital? *J. Bank. Financ.* **2011**, *35*, 2388–2406. [CrossRef]
- 94. Garcia-Castro, R.; Ariño, M.A.; Canela, M.A. Does social performance really lead to financial performance? Accounting for endogeneity. *J. Bus. Ethics* **2010**, 92, 107–126. [CrossRef]
- 95. Cheng, B.; Ioannou, I.; Serafeim, G. Corporate social responsibility and access to finance. *Strateg. Manag. J.* **2014**, *35*, 1–23. [CrossRef]
- 96. Gupta, K.; Krishnamurti, C. Does corporate social responsibility engagement benefit distressed firms? The role of moral and exchange capital. *Pac.-Basin Financ. J.* **2018**, *50*, 249–262. [CrossRef]
- 97. Kim, Y.; Park, M.S.; Wier, B. Is Earnings Quality Associated with Corporate Social Responsibility? *Account. Rev.* **2012**, *87*, 761–796. [CrossRef]
- 98. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E.; Tatham, R.L. *Multivariate Data Analysis*; Pearson Prentice Hall: Upper Saddle River, NJ, USA, 2006; Volume 6.

Sustainability **2022**, 14, 6019 21 of 21

99. Deegan, C.; Shelly, M. Corporate Social Responsibilities: Alternative Perspectives About the Need to Legislate. *J. Bus. Ethics* **2014**, 121, 499–526. [CrossRef]

- 100. Hanifa, A.; Cahaya, F.R. Ethical communication on society issues: A story from Indonesia. *J. Glob. Responsib.* **2016**, *7*, 39–55. [CrossRef]
- 101. Searcy, C. Measuring enterprise sustainability. Bus. Strategy Environ. 2016, 25, 120-133. [CrossRef]
- 102. Yekini, K.C.; Adelopo, I.; Andrikopoulos, P.; Yekini, S. *Impact of Board Independence on the Quality of Community Disclosures in Annual Reports*; Accounting Forum; Elsevier: Amsterdam, The Netherlands, 2015; pp. 249–267.
- 103. Deegan, C.; Unerman, J. Financial Accounting Theory: European Edition; McGraw-Hill: New York, NY, USA, 2011.
- 104. Boeske, J.; Murray, P.A. The Intellectual Domains of Sustainability Leadership in SMEs. Sustainability 2022, 14, 1978. [CrossRef]
- 105. Hudson, M.; Lean, J.; Smart, P.A. Improving control through effective performance measurement in SMEs. *Prod. Plan. Control* **2001**, *12*, 804–813. [CrossRef]
- 106. Janang, J.S.; Joseph, C.; Said, R. Corporate governance and corporate social responsibility society disclosure: The application of legitimacy theory. *Int. J. Bus. Soc.* **2020**, *21*, 660–678. [CrossRef]
- 107. Riva, P.; Comoli, M.; Garelli, A. *ESG for SMEs: Can the Proposal 2021/0104 for a European Directive Help in the Early Detection of a Crisis*; IntechOpen: London, UK, 2021.