The Link Between ESG Performance and Earnings Quality

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Abstract

The field of study pertaining to environmental, social, and governance (ESG) concerns has gained significant interest in recent years, primarily driven by increasing worldwide concern about climate change and environmental challenges. Prior research has examined corporate social responsibility (CSR) and environmental, social, and governance (ESG) initiatives as actions that may be susceptible to opportunistic conduct by managers, which may be observed via earnings management. This research aims to investigate different perspectives of earnings quality (EQ) by examining the determinants of EQ described as inherent operating environment and risk of the industry business process (innate factors of EQ) and management reporting decision (manager's discretion of EQ). Separating the components of EQ determinants individually is considered an advantage by the previous researcher. Using fixed effect panel data, this study demonstrates that ESG performance is positively associated with discretionary accruals and negatively related to innate earnings quality. This phenomenon might perhaps be attributed to the challenges posed by the sector, characterized by rapid digital transformation and unexpected digital development in the markets. This observation suggests that over time, the utilization of symbolic ESG business practices, which are susceptible to greenwashing, would have a detrimental effect on the fundamental earnings quality influenced by the operational context and the risk of uncertainty associated with the organization.

Keywords: ESG, environment, social, governance, earnings quality, innate earnings quality, discretionary, digital.

JEL: G30, G32, M41, Q56

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1. Introduction

Corporate social practices have gained recognition as a moral imperative, grounded in the notion that businesses are obligated to adhere to societal norms and uphold ethical standards. The concept of social responsibility is often perceived as a manifestation of ethical obligations demonstrated by managers. (e.g., Carroll, 1979; Phillips et al., 2003) and responsible operating decisions reflected in financial and non-financial reporting. Numerous studies found that socially responsible firms are unlikely to be involved in earnings management (Chih et al., 2008; Kim et al., 2012; Kumala & Siregar, 2020; Lim & Choi, 2013; Scholtens & Kang, 2013) and those reported corporate social responsibilities (CSR) activities have a positive association with earnings quality (Bozzolan et al., 2015; Rezaee et al., 2020).

Nevertheless, the manifestation of opportunistic and narcissistic behaviour, such as management entrenchment, might potentially lead to a divergence between the intended functions of CSR. Opportunistic managers employ CSR as a means to hide their unethical practices, such as earnings management. (García-Sánchez et al., 2020). (Gond et al., 2009) critically evaluate the instrumental perspective of CSR as postulated by Friedman (2007). The researchers aim to demonstrate how this perspective portrays legitimate businesses driven by a strong profit motive, which may result in the adoption of morally questionable practices similar to those observed in illegal and unethical activities conducted by mafia enterprises. This was demonstrated by Enron, which went from being the "most admired" company to the "most despised," with traits that made it look like a mafia-run business. It is noticeable that managers' discretion as insiders in reported earnings might be used to mislead outsiders. Prior research has indicated that instrumentalists employ CSR as a driving force to achieve superior financial performance. (Grougiou et al., 2014; MartínezFerrero et al., 2016; Prior et al., 2008) or as a self-defence strategy (Prior et al., 2008; Rowley & Berman, 2000; Schneper & Guillén, 2004).

Both these negative and positive associations indicate the diverse impact of CSR on EQ. Nonetheless, many still think that the CSR-EQ nexus is more ambiguous than possibly observed from the surface. Francis et al. (2008) and Rezaee et al. (2020) highlight that EQ is influenced by two factors that reflect the inherent aspects of the business model and operating environment of the business (innate determinant) and the reporting sources related to management decisions, systems, standard-setting, and governance (discretionary determinant).

The innate factors are seen as long-term views, hence slow to change, while discretionary is more towards short-term determinants of earnings quality. Dechow & Dichev (2002) and Francis et al. (2005) adopted this approach by using the measurement of accruals quality and innate factors of a company, such as sales change, change in operating cash flow, operating cycle, size, and the existence of negative income (loss). This approach offers more clarity in determining the short- or long-term effect of the earnings quality of the business.

Even though excessive studies of CSR and EM or EQ have been performed, there has been a recent change in how the emerging issues of CSR have recently been incorporated into a more tailored and non-financial information focus to satisfy investors' demands. Historically, sustainability reporting focused primarily on environmental and social

factors. Unlike traditional CSR, ESG now explicitly incorporates governance. (Gillan et al., 2021).

A small number of studies have also been found in emerging and developing economies, especially in Asia, which is considered lagging behind the West in terms of CSR dissemination and communication research (Tang et al., 2015) since sustainability-related disclosure is still a voluntary practice in many of the countries in Asia. Additionally, Asian markets are determined by some characteristics, such as more agency problems, severe information asymmetries, and weaker corporate governance than Western countries (Stein & Rosefielde, 2005; Welford, 2007). Hence, it offers a better understanding of the link between ESG and EQ in specific characteristics of Asian markets.

Additionally, the digital industry has been one of the vastly changed industries. It has become more aggressive with the global competitiveness facing the digital era. (Roller & Waverman, 2001) used a panel of 21 OECD countries from 1970 to 1990 to investigate the impact of telecommunications development and how telecommunications infrastructure impacts economic growth. The research findings provide empirical evidence that establishes a significant and positive causal link between telecommunications infrastructure and overall output. It is noteworthy to acknowledge that the telecoms market's competitive landscape is mostly characterized by the quantity of service providers rather than the technological approaches they employ. This may potentially result in situations where the prioritization of ethical considerations is overshadowed by the prevailing political environment. Issues of ESG in this industry involved environmental issues of reducing waste and carbon (Fernandez & Elfner, 2015); social aspects of stakeholder engagement such as customer security & protection of data privacy, and work health and safety (Carre et al., 2018; Contrafatto & Burns, 2013; Searcy et al., 2012); internal governance such as board monitoring roles in mitigating risks related to business dealings, the ethical decision of corporate commitment to support ESG practices (Chih et al., 2008; Collison et al., 2008; Joseph et al., 2016). Scholtens & Kang (2013) and Yip et al. (2011) research on CSR and earnings management in Asian companies found that the links were not the same across industries or political settings. The author was motivated to investigate this influence on the digital industry, such as communication services, which is currently facing fast-paced forces of digital transformation processes, influencing its business strategy and ESG orientation. This phenomenon also demonstrates that contextual variables such as unique industries of ESG and EQ will be equally important to consider rather than generalizing the findings of previous studies.

This study will explore the different perspectives of earnings quality by examining the determinants described as inherent operating environment and risk of the industry business process (innate factors of EQ) and management reporting decision (manager's discretion of EQ). (Francis et al., 2008) highlight their concern of individually examining the components of EQ determinants as an advantage. The research design empirically distinguished innate as long-term and slow-to-change determinants, such as firm size, sales fluctuation, change in operating cash flow, and loss occurrence, while discretionary views as predictable changes that occur because of modification at the reporting date related to management reporting.   Due to the rapid growth of the digital industry, the authors believe it is worthwhile to investigate ESG practices in relation to the different EQ determinants, particularly the innate EQ, which is characterized by the inherent business model, operational environment, and risk of the industry. Hence, this study will

answer the research question of "***How is ESG performance associated with the innate and discretionary earnings quality of the digital industry in Asia?***"

This study is anticipated to provide three contributions to the existing literature and business practice. Firstly, this study aims to analyse the influence of environmental, social, and governance (ESG) performance on several indicators of earnings quality within the fast-paced digital industry in Asia. Based on the available literature, it appears that there is a lack of study for this specific firm. Secondly, contributing to business practice, it is important to conduct an in-depth examination of the three fundamental pillars, namely environmental, social, and governance scores, which collectively contribute to the overall evaluation of ESG performance within the digital industry, such as the communication services business. Eventually, this study aims to analyse the ESG performance on the inherent and discretionary factors that contribute to the quality of earnings.

The organisation of the remaining part of this paper is as follows: section 2 contains discussions on literature review and hypothesis development. Section 3 discusses the material and methods, while the presentation of the study's result and discussion is in section 4, followed by the conclusion in Section 5.

2. Literature Review

The relationship between sustainability practices and earnings management has produced varied results. Velte (2019) discovered that ESG has a negative impact on accrual-based earnings management, but not actual earnings management. This result is consistent with the findings of Nurrahman et al. (2019), who discovered that firms with superior ESG performance also have superior earnings quality because it reduces managers' unethical and opportunistic behavior.

Even though previous research indicates that ESG performance benefits company performance and firm value, it is not without its drawbacks. A study by Saygili et al. (2021) concluded that in an emerging market, environmental disclosures undermine corporate financial performance. The other threat is also reported as the deceptive disclosure strategy of ESGs to deliberately mislead their stakeholders to benefit firms' reputations (Bowen & Aragon-Correa, 2014; Yu et al., 2020; Pirzada et al., 2023). The managers may selectively deploy their information to fit with their short-term financial goals (Janggu et al., 2014; Mahoney et al., 2013) when clear criteria are not established to evaluate and compensate for their social stewardships' performance (Chih et al., 2008; Dang et al., 2021; Jensen, 2001). Opportunistic reasons such as management entrenched self-interest and narcissism may promote agency conflicts between managers and shareholders in an alteration of accounting numbers which may lead to low-quality financial reporting practices (Di Meo et al., 2017; Garcia et al., 2017; Salehi et al., 2021) and the quality of reported earnings number that depends on the informativeness of financial performance and conditional on the decision-relevance of the information (Dechow et al., 2010). Dechow et al. (2014) reveal that earnings quality is crucial to investors, and the information content of financial earnings and non-financial indicators affect stock prices. Conversely, when managers use their financial reporting discretion to falsify earnings signals, the quality of earnings is not relevant to decision-making usefulness. This conflict creates opportunistic economic incentives for earnings

management, which then reduces earnings quality (Jaggi & Tsui, 2007). Therefore, derived from the mixed results from previous studies, the author's first hypothesis is:

H₁: ESG performance is negatively associated with discretionary accruals, hence higher earnings quality.

Previous studies have engaged in discussions on the absence of integration ESG factors and the primary drivers of financial performance (Friede, 2019; Schoenmaker & Schramade, 2019). ESG reporting suffered from the negative consequences of investor integration since managers employed ESG to mitigate risk rather than maximize company value (Przychodzen et al., 2016). According to Berrone et al. (2009), CSR decoupling occurs as a result of a company's symbolic actions contrary to substantive practices in an attempt to gain public or social acceptance. The significance of incorporating sustainability strategy as a prominent determinant of competitiveness within the corporate domain (Friede et al., 2015; Galbreath, 2013; Meza et al., 2021) is hindered by the complex nature of its assessment and the ambiguous boundary between financial, environmental, and social objectives. A study by Yu et al. (2020) identifies that some companies intentionally provide more ESG-related information to hide their poor ESG performance. These tendencies are prone to reduced earnings quality, especially innate earnings quality, which is related to the business model and operating environment. In the communication services industry in Asia, the inherent traits are highly driven by the extremely fast-paced changes of digital transformation (Gherardi et al., 2014). Asia's developing markets are striving for this unpredictable digital growth. Prior research has also emphasized the globally and local competitiveness of this industry (Gherardi et al., 2014; Lee & Wong, 2016), which has further intensified due to the increased global competition prompted by technological advances. In terms of disclosure, according to (Verrecchia, 1990, 2001), managers will provide more disclosures if the benefits exceed the cost of disclosure, meaning increase in the quality of information. This also would mean that higher levels of innate component of accrual quality will reduce the cost of generating information from this industry due to its firm's characteristics. On the other hand, discretionary accrual quality is associated with greater information costs to prepare for earnings-related information. This circumstance gives rise to the second hypothesis:

H₂: ESG performance is positively associated with innate earnings quality, hence higher earnings quality.

In Asia, the market is characterized by weak protection of shareholder rights, higher information asymmetry, weaker transparency of governance, and suffering moral hazards (Scholtens & Kang, 2013). With the emerging issues of CSR, more Asian firms seek to increase their sustainability reporting credibility, though the verification and viability are still criticized (Rezaee et al., 2019). ESG performance-related study is also considered recent in Asia. Hence, the number of studies is also considered limited compared to developed countries (Lokuwaduge & Heenetigala, 2017; Signori et al., 2021). Scholtens & Kang (2013) and Yip et al. (2011) found that relationships varied between industries as well as political environments in their research of CSR and earnings management in Asian firms. The evidence shows a negative relationship between the oil gas industry and the opposite result in the food industry. Ethical consideration is less important compared to the political environment. This finding suggests that it is crucial to include contextual variables of ESG and EQ when examining the significance of these variables. It is

necessary to avoid generalizing the outcomes of prior research. Consistent with Dichev et al. (2013) and following (Moon, 2014; Rezaee & Tuo, 2019), different earnings quality measures of innate earnings and discretionary earnings will be used in this research as proxies to detect management behavior reflected in earnings quality. Innate earnings quality is used to show the persistency, sustainability, and long-run predictor of EQ. On the one hand, discretionary earnings are transitory, non-persistent, and non-sustainable since it is generated through accruals (discretionary accruals). Both qualities are important to reduce or mitigate opportunistic and narcissistic behaviors. Hence, the author will also explore the rationales of each ESG component as the basis of the following hypotheses:

H$_3$: Each environment, social and governance pillar of ESG performance is negatively associated with discretionary accruals.

H$_4$: Each environment, social and governance pillar of ESG performance is positively associated with innate earnings quality.

3. Research Methodology

This study will employ a quantitative technique using 316 firm-year data from 2018 to 2021 from 79 publicly traded telecommunications service firms in Asia. As a measure of ESG performance, the authors use the "environmental, social, and governance ratings" from Thomson Reuters' ASSET4 or Refinitif. Other financial data was generated from Refinitif Eikon and Factset.

The data in this research will be analyzed using the following described models. The earnings quality is estimated following (Dechow & Dichev, 2002; Francis et al., 2005; McNichols, 2002; Rezaee & Tuo, 2019) for cross-sectional regression for each firm year. The residual from this regression will be used in model (2) to obtain the innate (predicted EQ) and discretionary (residual) related earnings quality.

$$\frac{TCA_t}{Assets_t} = \alpha_0 + \alpha_1 \frac{CFO_{t-1}}{Assets_t} + \alpha_2 \frac{CFO_t}{Assets_t} + \alpha_3 \frac{CFO_{t+1}}{Assets_t} + \alpha_4 \frac{CFO_{t-1}}{Assets_t} + \alpha_1 \frac{\Delta REV_t}{Assets_t} +$$
$$\alpha_5 \frac{PPE_t}{Assets_t} + \varepsilon_t \tag{1}$$

Where, TCA_t is the total current accrual in year t, $Assets_t$ is the average total assets in year t and year t - 1, and CFO_{t-1}, CFO_t, and CFO_{t+1} are, respectively, cash flow from year t - 1, t, and t+1. The ΔREV_t measured the change of sales in t and t − 1, PPEt is the net total property, plant, and equipment in that year.

In this following model, the residual from the first equation is made absolute and used to measure the innate (predictive EQ) and discretionary (residuals) following Moon (2014) and Rezaee & Tuo (2019). The EQ is differentiated as innate (associated with the inherent operating uncertainty related to operating cash flow, sales volatility, operating cycle risk, and negative losses) and discretionary earnings quality determined by the manager's discretionary behavior. This innate (discretionary) EQ (IEQ/DEQ) is performed by the degree of estimation error attributable (not attributable) to the innate characteristics. The

following model from (Francis et al., 2008; Moon, 2014; Rezaee et al., 2019) is used to test the EQ, with IEQ as the predicted value and DEQ referring to the residual from the equation (2).

$$EQ_{i,t} = \beta_0 + \beta_1 SIZE_{i,t} + \beta_2 OPRCYCLE_{i,t} + \beta_3 CFVOL_{i,t} + +\beta_4 SALEVOL_{i,t} + \beta_5 NEG_{i,t} +$$
$$\beta_6 INT_{i,t} + \beta_7 INTDUM_{i,t} + \varepsilon_{i,t} \tag{2}$$

Where, SIZE: the natural logarithm of total assets); cash flow volatility (CFVOL), sales volatility (SALEVOL): the standard deviation of cash flows (sales) scaled by total assets over the previous 5-year window; NEG: the frequency of negative earnings realizations during the previous five years; INT: intangible assets scaled by total assets; INTDUM: a dummy variable (1 = if research and development expenditure or advertising expenditure is missing, 0 vice versa). The control variables are determined as inherent firms' traits (innate determinants) according to previous studies.

Subsequently, following Rezaee & Tuo(2019), the authors tested the effect of ESG rating on each of the innate and discretionary EQ using models **(3) and (4)**. The author also controls year fixed effect and company effect for macro economy conditions using fixed effect and tests hypotheses 1 and 2, using the following regressions:

$$DEQ_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 SIZE_{i,t} + +\beta_3 CA\_TA\,ratio_{i,t} + \beta_4 BTM_{i,t} +$$
$$\beta_5 LEV_{i,t} + \beta_6 NOA_{i,t} + \beta_7 EARNVOL_{i,t} + +\beta_8 RETVOL_{i,t} +$$
$$+\beta_9 OPRCYCLE_{i,t} + \varepsilon_{i,t} \tag{3}$$
$$IEQ_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 SIZE_{i,t} + +\beta_3 CA\_TA\,ratio_{i,t} + \beta_4 BTM_{i,t} +$$
$$\beta_5 LEV_{i,t} + \beta_6 NOA_{i,t} + \beta_7 EARNVOL_{i,t} + +\beta_8 RETVOL_{i,t} +$$
$$+\beta_9 OPRCYCLE_{i,t} + \varepsilon_{i,t} \tag{4}$$

Where, IEQ: innate earnings quality; DEQ: discretionary earnings quality; ESG: Environment, Social, and Governance performance score; SIZE: natural log of total asset; BTM: book-to-market ratio at the beginning year; ROA: return on assets; Current: current assets to total assets ratio; LEV: the leverage ratio; RETVOL: previous 5-year stock return volatility; EARNVOL: previous 5-year earnings volatility; NOA is a dummy variable (1 if a firm's net operating assets at the year beginning scaled by beginning sales are above the median of the corresponding industry's net operating assets, 0 otherwise.)

For hypotheses 3 and 4, the regression model will be repeated to test each pillar of ESG using the same regression to test individual components of ESG toward the innate and discretionary EQ.

$$DEQ_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 SIZE_{i,t} + +\beta_3 CA\_TA\,ratio_{i,t} + \beta_4 BTM_{i,t} +$$
$$\beta_5 LEV_{i,t} + \beta_6 NOA_{i,t} + \beta_7 EARNVOL_{i,t} + +\beta_8 RETVOL_{i,t} +$$
$$+\beta_9 OPRCYCLE_{i,t} + \varepsilon_{i,t} \tag{3}$$
$$IEQ_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 SIZE_{i,t} + +\beta_3 CA\_TA\,ratio_{i,t} + \beta_4 BTM_{i,t} +$$
$$\beta_5 LEV_{i,t} + \beta_6 NOA_{i,t} + \beta_7 EARNVOL_{i,t} + +\beta_8 RETVOL_{i,t} +$$
$$+\beta_9 OPRCYCLE_{i,t} + \varepsilon_{i,t} \tag{4}$$

4.   Results and Discussions

In this section, the author will present the results and respective analyses. Out of the total 4908 communication services operating in the Asian region, a mere 79 organizations meet

the requirements, which include reporting ESG in the past five years and acquiring complete data for other variables in the database. The findings are reported in tables 3-5, which show the estimation results of models 3, 4, and 5.

Table 1 shows the descriptive statistics of the ESG score, EQ indicators, and other control variables of the companies. The outliers in the data have been tested and winsorized at the 1% top-bottom. The result shows that the highest ESG rating is 87.2 from the highest score of 100 provided by the rating agency, in which the governance component shows the highest and the lowest score among the other two components of social and environment, respectively, in the second and third place.

Table 1. Descriptive Statistics for Regression Samples

Variable	Obs	Mean	Std. dev.	Min	Max
IEQ	316	0.075	0.185	-0.575	0.590
DEQ	316	0.001	0.495	-0.531	3.889
ESG	316	44.700	19.738	3.900	87.174
ENV	316	29.750	25.810	0.000	88.816
SOC	316	42.418	24.407	0.961	94.372
GOV	316	54.485	21.173	7.598	97.210
NOA	316	0.788	0.409	0.000	1.000
RETVOL	316	0.317	0.312	0.000	2.967
EARNVOL	316	2.088	6.745	0.000	55.850
SIZE	316	22.563	1.475	19.574	26.747
BTM	316	3.059	8.092	-57.240	73.483
OPRCYCL	316	4.567	0.721	2.507	7.938
LEV	316	1.386	5.452	0.000	79.326
CA/TA RATIO	316	0.375	0.223	0.069	0.933
SIZE	316	22.563	1.475	19.574	26.747

Table 2 presents the ESG rating, and each component for each country from 18 countries in Asia used as company samples. The result shows that Singapore has the highest mean, with only two countries performing ESG. Japan has more rated companies than other countries; however, on average, they are placed below the score of 50 (out of 100). Overall, by country, communication services in Asia still have a low rate of ESG performance, as presented in this table.

Table 2. Descriptive Statistics of ESG per Country

Country	Number of Company	Mean of ESG	StdDev of ESG	Mean of ENV	StdDev of ENV	Mean of SOC	StdDev of SOC	Mean of GOV	StdDev of GOV
China	2	57.62	15.09	37.89	13.59	61.63	18.62	61.74	20.55
Hong Kong	4	48.86	14.05	45.63	18.37	39.70	17.25	58.97	20.00
India	6	44.95	10.23	32.98	17.98	41.44	13.42	58.14	16.15
Indonesia	7	38.83	18.38	13.38	16.67	42.82	24.06	44.51	21.65
Israel	3	23.97	7.57	11.20	16.19	22.34	15.86	37.04	16.13
Japan	21	37.90	17.49	20.48	25.90	34.94	20.84	46.53	19.76
Korea; Republic (S. Korea)	8	49.31	22.86	30.75	28.50	41.53	28.60	62.29	25.13
Kuwait	2	46.02	22.69	24.56	21.69	41.91	28.07	70.71	14.15
Malaysia	6	58.02	10.39	36.73	11.30	62.76	15.45	62.37	10.52
Oman	2	21.45	3.16	0.04	0.11	12.02	4.69	56.76	14.92
Philippines	2	49.23	6.83	38.62	16.41	46.68	5.36	62.49	8.21
Qatar	1	17.16	7.14	0.23	0.46	6.04	5.16	52.44	16.71
Saudi Arabia	2	28.52	10.38	9.28	10.13	22.56	20.00	55.22	15.14
Singapore	2	67.16	8.08	65.02	3.96	64.94	8.45	73.26	22.18
Taiwan	4	66.57	26.23	67.70	16.82	67.82	31.82	63.20	26.34
Thailand	3	59.00	15.04	52.63	23.23	61.88	25.99	53.87	17.95
Turkey	2	45.81	19.10	47.84	21.03	43.13	12.74	49.65	32.87
United Arab Emirates	2	45.94	11.05	35.33	10.98	42.80	10.83	60.38	16.61
Mean		44.70		29.75		42.42		54.49	
StdDev		19.74		25.81		24.41		21.17	

Table 3

Correlation Matrix for Regression Samples

Panel A

	DEQ	ESG	ENV	SOC	GOV	SIZE	CA/TA Ratio	BTM	LEV	NOA	EARNVOL	RETVOL	OPRCYCL
DEQ	1												
ESG	0.1951*	1											
ENV	0.0269	0.8147*	1										
SOC	0.1786*	0.9190*	0.7516*	1									
GOV	0.1824*	0.7063*	0.4207*	0.4256*	1								
SIZE	0.0047	0.3804*	0.4887*	0.3501*	0.2289*	1							
CA/TA RATIO	-0.047	-0.2897*	-0.3819*	-0.291*	-0.2126*	-0.3958*	1						
BTM	0.1967*	0.1351*	-0.0017	0.1493*	0.0928	-0.1348*	-0.0039	1					
LEV	0.0039	0.0544	0.1285*	0.0887	-0.0331	-0.0042	-0.2249*	0.2625*	1				
NOA	0.0667	0.0042	0.0314	-0.0193	0.0588	0.3261*	-0.4773*	-0.2379*	-0.0088	1			
EARNVOL	-0.0443	-0.0097	0.0334	-0.0175	-0.0019	-0.0962	0.1112*	-0.2199*	0.2219*	-0.1518*	1		
RETVOL	-0.0471	-0.1612*	-0.2237*	-0.1876*	-0.099	-0.1120*	0.3350*	-0.0045	0.0035	-0.1673*	0.1910*	1	
OPRCYCL	0.0424	-0.1002	-0.0453	-0.0972	-0.1269*	0.0708	0.1318*	-0.0705	-0.0007	0.1579*	-0.084	-0.1007	1

Panel B

	IEQ	ESG	ENV	SOC	GOV	SIZE	CA/TA Ratio	BTM	LEV	NOA	EARNVOL	RETVOL	OPRCYCL
IEQ	1												
ESG	-0.3035*	1											
ENV	-0.3394*	0.8147*	1										
SOC	-0.2672*	0.9190*	0.7516*	1									
GOV	-0.1984*	0.7063*	0.4207*	0.4256*	1								
SIZE	-0.6560*	0.3804*	0.4887*	0.3501*	0.2289*	1							
CA/TA RATIO	0.2867*	-0.2897*	-0.3819*	-0.2910*	-0.2126*	-0.3958*	1						
BTM	0.2202*	0.1351*	-0.0017	0.1493*	0.0928	-0.1348*	-0.0039	1					
LEV	-0.0248	0.0544	0.1285*	0.0887	-0.0331	-0.0042	-0.2249*	0.2625*	1				
NOA	-0.1365*	0.0042	0.0314	-0.0193	0.0588	-0.4773*	0.3261*	-0.2379*	-0.0088	1			
EARNVOL	-0.1025	-0.0097	0.0334	-0.0175	-0.0019	-0.0962	0.1112*	-0.2199*	0.2219*	-0.1518	1		
RETVOL	-0.0222	-0.1612*	-0.2237*	-0.1876*	-0.099	-0.1120*	0.3350*	0.0045	0.0035	-0.1673*	0.191*	1	
OPRCYCL	0.1179*	-0.1002	-0.0453	-0.0972	-0.1269*	0.0708	0.1318*	-0.0705	-0.0007	0.1579*	-0.084	-0.1007	1

Significant at 5% level

Table 3 presents the correlation matrix between ESG, the innate and discretionary earnings quality. The result shows that ESG is positively associated with discretionary accrual (DEQ) as opposed to innate (IEQ)

The authors conducted heteroskedasticity and multicollinearity diagnostic tests for all variables in the models (the result is not presented here). Their results that the data sets are free from multicollinearity and have been treated for heteroskedasticity concerns that would affect the inferences. To test models (3) and (4), the authors conducted the Hausman test to decide on the appropriate model between fixed effects and random effects panel models. The tests indicate panel data with a fixed effect, and the result is presented in Table 4 - panel A for the relationship between ESG and innate (IEQ) and panel B for discretionary accrual (DEQ).

Table 4. The Relation between ESG Performance and Earnings Quality (IEQ/DEQ)

Panel A	Dependent = DEQ		Panel B	Dependent = IEQ	
	Discretionary Accrual			Innate Determinant	
	Coefficient	P value		Coefficient	P value
ESG	0.002	**0.036***		-0.001	**0.024***
SIZE	0.069	0.000*		-0.073	**0.000***
CA/TA RATIO	-0.019	0.753		0.017	0.733
BTM	-0.003	**0.094****		0.001	0.169
LEV	0.001	0.604		0.003	0.098
NOA	-0.022	0.259		0.018	0.198
EARNVOL	0.001	0.696		0.000	0.907
RETVOL	-0.017	0.321		0.014	0.290
OPRCYCL	0.008	0.142		-0.007	**0.074****
_cons	-1.631	**0.000***		1.794	**0.000***
Year fixed effect	Yes			Yes	
Company fixed effect	Yes			Yes	
Prob > F	**0.0005***			**0.000***	
R-squared	0.180			0.195	
Number of obs	316			316	

*Significant at 5% level, ** significant at 10% level*

The authors find that ESG performance rating is positively associated with discretionary accruals (coefficient = 0.002, p-value = 0.036). In contrast, the ESG performance rating is negatively associated with innate earnings quality (coefficient = -0.001, p-value = 0.000). This suggests that a better ESG score in this industry is associated with higher discretionary accruals due to possible opportunistic reasons that may promote agency conflicts between managers and shareholders in an alteration of accounting numbers, which may lead to low-quality financial reporting practices (Di Meo et al., 2017; Garcia et al., 2017; Salehi et al., 2021). Consistently, this long-term effect will likewise have negative consequences for the company. This is reflected in the negative association between ESG performance and innate earnings quality, meaning ESG is associated with inherent operating environment uncertainty in this industry. This might happen because of the pressures from this industry, facing extremely fast-paced changes of digital transformation (Gherardi et al., 2014) and the markets striving for this unpredictable

digital growth. This shows that in the long run, this industry's representational ESG practices (prone to greenwashing) will negatively impact the inherent earnings quality driven by the operating environment and uncertainty risk of the business model.

To further analyze the specific component of ESG, the author conducts analyses individually, and components individually for each ESG component, as shown in Table 5. The result highlights that the social component (SOC) is positively related to innate and discretionary quality. This can be explained by the fact that the sustainability reputation of the telecommunications industry is considered competitive (Adams & Frost, 2008). The inherent social risks in the communication services industry are related to information security and privacy since companies are dealing with people's data that can be misused. The company's reputation and economic prospects will depend on its ability to manage its supply chain and business process related to social risks by promoting its social best practices (Egorova et al., 2022). Thus, this industry must ensure that its social (SOC) performance is reflected in its operating environment and management reporting, systems, and governance as a true reflection of its substantive action.

Table 5. The Relation between E, S, G Component and Earnings Quality

	Dependent = DEQ		Dependent = IEQ	
DEQ	Coefficient	P>t	Coefficient	P>t
ENV	0.000	0.746	0.000	0.626
SOC	0.001	**0.005***	-0.001	**0.020***
GOV	0.000	0.158	0.000	0.280
SIZE	0.070	**0.000***	-0.071	**0.000***
CA/TA RATIO	-0.025	0.716	0.022	0.725
BTM	-0.003	**0.007***	0.001	0.147
LEV	0.002	0.309	0.003	**0.061****
NOA	-0.024	0.097	0.017	0.171
EARNVOL	0.001	0.528	0.000	0.911
RETVOL	-0.016	0.372	0.014	0.392
OPRCYCL	0.007	0.219	-0.007	0.151
_cons	-1.637	**0.000***	1.746	**0.000***

5. Conclusions and Recommendations

The potential decoupling of CSR may arise from opportunistic and narcissistic behaviors, such as management entrenchment. According to García-Sánchez et al. (2020), managers with opportunistic tendencies employ CSR to conceal unethical practices such as earnings management. ESG literature is susceptible to manipulation by companies or management in order to align with their opportunistic activities, resulting in the manifestation of greenwashing practices. This study reveals that ESG performance is positively associated with discretionary accruals and negatively related to innate earnings quality. This suggests that a better ESG score in this industry is associated with higher discretionary accruals due to possible opportunistic reasons that may promote agency conflicts between

managers and shareholders in an alteration of accounting numbers, which may lead to low-quality financial reporting practices (Di Meo et al., 2017; Garcia et al., 2017; Salehi et al., 2021). Consistently, this long-term effect will likewise have detrimental consequences for the company. This is reflected in the negative association between ESG performance and innate earnings quality. This phenomenon may arise because of the pressures imposed by the industry, facing extremely fast-paced changes of digital transformation (Gherardi et al., 2014) and the markets striving for this unpredictable digital growth. This shows that in the long run, this industry's symbolic ESG practices (prone to greenwashing) will negatively impact the inherent earnings quality driven by the operating environment and uncertainty risk of the business model. Additionally, the social component (SOC) is positively associated with innate and discretionary quality. The inherent social risks in the digital industry are related to information security and privacy since companies are dealing with people's data that can be misused. The company's reputation and economic prospects will depend on its ability to manage its supply chain and business process related to social risks by promoting its social best practices (Egorova et al., 2022). As a result, this industry needs to ensure that their social (SOC) performance is demonstrated in their operating environment and management reporting, systems, and governance, so that it is a true picture of what they do.

The data used in this study is limited to only 79 sample companies from 18 countries rated by ESG since only a few companies in the industry on this score. This may not be sufficient due to the potential bias of the limited representative numbers of companies in the discussed industry. However, this study has included all the companies with ESG performance ratings. This study can be extended to capture a comparison between different industries since the previous study also highlights the unique character of other industries that are sensitive to ESG as innate and discretionary quality.

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