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Before the Next Normal: How Voluntary ESG Reporting Affects Stock Performance and Trading Among Publicly Listed Companies in the Philippines — An Event Study

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Abstract: The corporate reporting landscape has evolved to incorporate nonfinancial disclosures and impact of and on the environment and society. The rise of ESG reporting has been slow but steady since Sir John Kensington coined the term triple bottom line in 1994. Albeit mostly voluntary at first, countries have started to mandate the submission of such reports in the recent decade to support the United Nations' Sustainable Development Goals (SDG) and the clamor for socially responsible investing (SRI). In 2019, the Philippine Securities and Exchange Commission (SEC) has issued Memorandum Circular No. 4 requiring all listed companies (PLCs) to submit a sustainability report starting 2019 together with the annual reports. While some PLCs publish their standalone ESG reports voluntarily, there are limited studies on how investors react to these voluntary ESG reports. This study analyzed 74 ESG reports from 2014 to 2019 using an event study around the issuance of the report to analyze the effect of voluntary ESG reporting on stock performance and trading volume. The results of the study show that there is no significant effect on both the stock performance and trading volume when these reports were issued.

Key Words: Voluntary ESG Reports, Sustainability Reporting, PLCs, Investors Reaction

1. INTRODUCTION

The increased concern for environmental and social issues has resulted in sustainability becoming the new normal for businesses. Contributing to the United Nations' Sustainable Development Goals or SDGs has affected business models and operations (Moliterni, 2018). On another hand, socially responsible investing (SRI) has gained global relevance, supporting the incorporation of ESG criteria into investment decisions (International Finance Corporation, 2011; De Souza Cunha & Samanez, 2012; Global Sustainable Investment Alliance, 2021). SRI aims to generate long-term value to its stakeholders, leading stock markets to adopt sustainable and responsible practices (Climent & Soriano, 2011; Johansson & Lundström, 2015; Bosch-Badia et al., 2018; Moliterni, 2018; Chitimiea et al., 2021). Both the stakeholder theory and signaling theory support SRI which claims that investment decisions are influenced partly by

behavioral biases (Sultana et al., 2018; Hussain et al., 2019; Rooh et al., 2021). Investors were said to be more likely to invest in a company that publishes sustainability reports and disclosures as they recognize the importance of ESG issues (Walter, 2016; Singer, 2017; Posner, 2017; Fisch, 2019). The recognition of ESG importance has prompted internationally recognized standard-setting bodies such as GRI, IIRC, and SASB to develop frameworks and standards that would aid in disclosure initiatives (KPMG, 2017). Regulators have also started to recognize the importance of such by introducing mandates for ESG reporting to which the Philippines has recently partaken in through its issuance of SEC Memorandum Circular No. 4 (2019). However, corporations are still given the freedom to choose which among the reporting standards or frameworks they would conform to (Merrill, 2016). This creates comparability issues for investors due to the lack of standardization (Vintage Group, 2016). ESG importance is also augmented by the Efficient Capital



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Market Hypothesis (ECMH) which states that in a fully efficient market, stock prices reflect all relevant information to market participants. (Kitson, 2012; Ruhani et al., 2018) Extending the theory to sustainability, prices would equate to sustainable value (Bosch-Badia et al., 2018), thus ESG information has implications on stock market performance.

While the Hidden Value Hypothesis (HVH) acknowledges the loss from misrepresentation that other studies fail to recognize (Kraakman & Black, 2002), the underlying concept is similar in terms of disproving a significant relationship between ESG reporting and stock returns (Arom, 2021). Prior studies support this model, claiming that ESG reporting does not affect stock returns due to country-specific factors like (1) investor perception and behavior in a specific country (Do & Kim, 2020); (2) stricter implementation of ESG policies (Moliterni, 2018), and (3) industries with ESG disclosures (De Souza Cunha & Samanez, 2013). Moreover, ESG was said to influence profitability but not on stock returns (Velte, 2017).

Limited studies on the usage of change in trading volume were accounted for with the intention of observing trading volume as a valuable market indicator. Beaver (1968) introduced trading volume as a metric that reflects investors' idiosyncratic reactions to certain events, often associated with a lack of consensus induced by new information. This is different from stock returns which represent the average reaction of the market towards new information (Karpoff, 1986; Kim & Verrecchia, 1991). Incorporating both into one's analysis would capture the different perspectives of an investor's response to new information (Cready & Hurtt, 2002; Du et al. 2017; Gao & Xie, 2020).

Furthermore, prior literature on ESG is predominantly in the context of developed countries, with few studies focused on ESG reporting. Thus, the study aims to answer the question, "How do investor react to voluntary issuances of ESG reports of PLCs in the Philippines?"

To answer the research problem, this study proposes two hypotheses:

H1: Issuances of ESG reports significantly affect Cumulative Abnormal Returns (CAR).

H2: Issuances of ESG reports significantly affect Cumulative Abnormal Changes in Trading Volume (CAV).

Stock returns are often used to measure investor response to new information, hence CAR. However, trading volume may also be a valuable market indicator as it would determine whether an event would produce relevant information to investors, hence CAV (Karpoff, 1986). Thus, the effect of ESG issuance was evaluated on each variable, and the results were analyzed both separately and together.

2. METHODOLOGY

Following an event study methodology, this study used the publication of voluntary standalone ESG or Sustainability Reports by PLCs from 2014 to 2019 as the event day (independent variable). Data regarding the stock returns, trading volume, and ESG report issue dates were gathered from the SEC Form 17-A, company websites, and Refinitiv Eikon.

Out of the 277 PLCs in the Philippine Stock Exchange directory, there were 74 voluntary ESG Reports identified and used in this study –1 from 2014, 5 from 2015, 12 from 2016, 12 from 2017, 18 from 2018 and 28 from 2019.

A 250-day estimation window was used which is consistent with the studies of Cheung (2011) and Do and Kim (2020) who had conducted similar studies. Furthermore, this study analyzed event sub-windows (Cheung, 2011) presented in Table 1 below.

Table 1. Event Period Sub-windows

10-day run-up window	[-10, -1]
5-day release-related window	[0, 4]
11-day release-related window	[0, 10]
31-day temporary price-impact window	[-10, 20]
71-day permanent price-impact window	[-10, 60]

The run-up window allowed for the determination of any insider trading prior to the event (Clarke et al., 2004). Release-related windows analyzed short-term

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impacts while the price-impact windows allowed for the distinction on any temporary or permanent changes because of the event. In the event sub-windows, relevant movements in stock returns and trading volume were observed by testing its dependent variables, CAR and CAV which are computed as follows:

$$CAR_i = \sum_{t=t_1}^n AR_{it} \quad (\text{Eq. 1})$$

where:

CAR_i = cumulative abnormal return of stock i

AR_{it} = abnormal return of stock i at time t

The CAR was computed as the sum of all individual abnormal returns over the different event windows. Abnormal returns were arrived at by deducting the expected returns from the actual returns. This presents the cumulative effect the event has over different event sub-windows.

$$CAV_i = \sum_{t=t_1}^{t_n} AV_{it} \quad (\text{Eq. 2})$$

where:

CAV_i = cumulative abnormal change in trading

volume of stock i at time t

AV_{it} = abnormal change in trading volume of stock i at time t

Similar to CAR, the individual abnormal change in trading volume is computed as the difference between the actual and expected change in trading volume, was aggregated to arrive at the CAV.

With the dependent variables, the hypotheses were tested by conducting the Wilcoxon-Signed Rank Test. This non-parametric counterpart to the Student's T-test was used as the data exhibits a non-normal distribution (Berry, 1990; Clarke, 2004; Delia, 2005).

To determine whether the event day, publication of ESG reports, has a significant relationship with the variable of study, a two-tailed one sample test was conducted. The hypothesized median would be valued at zero in testing the hypotheses. At a confidence level of 95% and an alpha (α) of 0.05, the resulting p-value (p) was used in making conclusions.

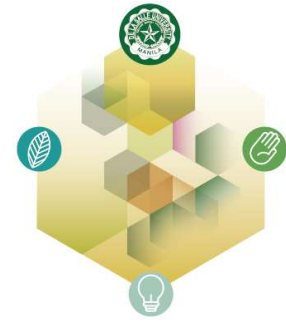
3. RESULTS AND DISCUSSION

Results in Table 2 show that all p-values are greater than the alpha which implies that there is no significant market reaction to the issuance of standalone ESG reports. The signaling theory assumes that events send signals about a firm's future value which would result in significant stock price movements. However, the test results contradict this. Rather, it suggests an absent reaction because PSE investors perceive ESG reports as non-value-adding.

Table 2. Hypothesis Test for CAR Across Event Windows

Event Window	One-sample Wilcoxon-Signed Rank Test	
	t-statistic	p-value
10-day run-up window	-0.773	0.4395
5-day release-related window	-0.326	0.7445
11-day release-related window	-1.770	0.0768
31-day temporary price-impact window	-0.213	0.8315
71-day permanent price-impact window	-1.775	0.0759

This result may be attributed to three primary reasons. First, compared to its developed counterparts, emerging markets like the Philippines face higher poverty and income disparity that prohibit the realization of inclusive growth (Zhang, 2017). This puts the two economies at different starting points as investors of emerging markets focus primarily on how to address financing shortfalls rather than ESG commitments (Attali, 2022). The second reason identified is comparability issues. There is a lack of standardization regarding ESG reporting (Fisch, 2019) due to the wide range of applicable standards and frameworks available. In addition, voluntary ESG reporting creates the possibility to report irrelevant or exaggerated data, often resulting in excessive information that would complicate investor analyses. The concerns faced by institutional and retail investors is the third reason. As institutional investors make up 81.8% of the total share volume traded in 2019 (Philippine News Agency, 2021), it is understood that test results generally reflect their perspective. Thus, the absent reaction is drawn to considerations of stranded asset risks (Nelson, 2017).



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As ESG reports may introduce changes in a firm’s operations, investors would have to assess the extents of the risk, how it affects their investments, and how other investors are reacting to the event. Consequently, retail investors account for a minority of the total volume traded. Their absent reaction is attributed to the presence of a comprehension gap that may impair their decisions. Given resource and time constraints, they are at a bigger disadvantage when it comes to analyzing complex and non-financial information (Luo et al., 2015). This explains the insignificant reaction upon ESG report issuances.

Table 3. Hypothesis Test for CAV Across Event Windows

Event Window	One-sample Wilcoxon-Signed Rank Test	
	t-statistic	p-value
10-day run-up window	-3.030	0.0024*
5-day release-related window	-4.490	< 0.0001*
11-day release-related window	-3.251	0.0011*
31-day temporary price-impact window	-3.585	0.0003*
71-day permanent price-impact window	-1.570	0.1163

*Significant at 5% significance level

Table 3 presents the results from testing the second hypothesis. The test statistics show how all CAV values are at the negative side of the median and significantly higher than CAR. This supports the hypotheses for the first four event windows, indicating that there has been a significant and relatively lower change in trading volume upon release of ESG reports among these windows.

Stocks traded less in the 5-day window. This means that immediately upon release of ESG reports, investors tend to wait before buying or holding onto their stocks to see, first, how the market would eventually react. However, less trading happened on the 11 and 31-day windows below the expected levels. Such a reaction can be interpreted in two ways. First, there could be a delayed reaction among investors in processing the ESG release. This interpretation suggests a favorable outlook as investors “wait and see” what the ESG release would do for them before doing another trade. The second interpretation suggests an unfavorable outlook, to which investors

generally have less interest towards release of ESG reports. Such could be the case due to the following reasons: First, investors are less attentive to the content of ESG reports due to lack of standardization (Louis & Sun, 2010) and the voluntary nature of ESG issuances and different frameworks that these PLCs adopt. Second, investors tend to be skeptical about positive information coming from companies because of the risk of greenwashing and cherry-picking which are prevalent among unstandardized ESG reports. In fact, they are more likely to react to negative information which is usually unanticipated and could potentially lead to losses (Tirunillai & Tellis, 2012). And third, there is a possibility that PSE investors treat ESG information as unrelated to investing (Fisher & Statman, 2000).

Additionally, the change from significant to insignificant reaction on the 71-day window means that investors’ attention is limited to the height of its release. In other words, ESG releases do not have a long-lasting effect on the stock market.

4. CONCLUSIONS

The research aimed to evaluate how investors react to the issuance of voluntary ESG reports of PLCs in the Philippines, through examining the movements of stock returns and trading volume around the release of such reports. Using an event study, the study analyzed the variables CAR and CAV across the market as well as on a per sector basis from 2014 to 2019. Based on the results, the objectives of the research were achieved leading to the conclusions as summarized below.

The individual analyses per variable showed that: (1) the issuance of voluntary ESG reports do not affect CAR during the event windows and (2) the issuance of voluntary ESG reports negatively affects CAV across the event windows, except for the 71-day permanent price-impact window.

Overall, the study concludes that investors do not react to ESG report issuances by PLCs. The lack of reaction may be interpreted to be that PSE investors do not value or do not realize the value of these reports. This perception by PSE investors implies that there is much to improve on in terms of assuring the



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reliability and credibility of ESG reports. Moreover, the unfamiliarity of retail investors with ESG information, or the risks considered by institutional investors associated with such, may create a delayed reaction, further explaining the absence of a response in the market.

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