



Quality of Environmental Sustainability Reporting and Financial Performance: Evidence from Pakistan

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Keywords:

Corporate sustainability, **ABSTRACT**

Environmental

performance, Panel data,

GMM

The study establishes a comprehensive environmental sustainability performance index of Pakistani companies. The environmental performance index has been built on the indicators taken from Global Reporting Initiative (GRI). Moreover, the environmental performance indicators have been scored by applying the criteria of quality of disclosures. A data set of 790 firm-year observations has been used for the period of seven years ranging from 2014 to 2020 based on the purposive sampling technique. Panel data random effects and the Generalized Method of Moments (GMM) have been used to test the relationship between environmental performance and financial performance assessed through return on assets (ROA). The system GMM has been applied to control for the endogenous nature of the relationship between environmental performance and financial performance. It has been found that environmental performance is positively and significantly related to financial performance in both the random effects and GMM estimations. Furthermore, it has been found that firms in the sample do not disclose too much monetary and quantitative data on environmental indicators. The quality of environmental disclosure is low among companies. The study relies on stakeholder and legitimacy theories, and it has been found that both theoretical perspectives are valid in the context of Pakistan. There is a strong need for efforts for enhancing the disclosure of non-financial environmental performance indicators. The study guides the regulatory authorities in enhancing environmental disclosure among companies.

INTRODUCTION

The business and academic world has become familiar with the concept of sustainability (sustainable development) and these concepts are constituent of business and

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academia (Montiel & Delgado-Ceballos, 2014). The term sustainable development was first discussed by the Brundtland report which provided the most famous and cited definition of the term- current generations should satisfy their needs by not compromising on the needs of future generations to come (WCED, 1987). The term implies the long-term commitment by world players to protect the planet and the resources for future generations. Sustainable development has gotten tremendous attention in the corporate context because of the dimensions addressing society, economics, environment, and governance are embraced by the business world (Lo & Sheu, 2007; Ziolo et al., 2021; Rashed & Shah, 2021).

Neubaum & Zahra (2006) expound on corporate sustainability as meeting stakeholders' expectations while achieving the growth of an organization. Corporate sustainability as the basis of good business governance may prove to be a benchmark, distinguishing valuable businesses from the less valuable (Lo, 2010). The notion of the triple bottom line (Elkington, 1997) combined the dimensions of profit, people, and the environment. Furthermore, the economic, social, and environmental areas of business came into a wider discussion among practitioners and academics. The corporate sustainability reporting and the related research are being increased whilst emphasizing Elkington's (1997), triple bottom line approach (Cheng et al., 2016; Baral & Pokharel, 2017; Kainzbauer et al., 2021). Companies are required to build and recover valuable resources that could be used currently as well as in the future (Ehnert, 2009).

The environmental component of corporate sustainability has gathered more attention in recent times due to issues related to environmental damage and climate change. Environmental sustainability as the maintenance of natural capital is about caring for the natural environment as it is the source of livelihood for human beings and other species (Goodland, 1995). Human interaction with the environment requires him to protect and preserve the environment by not exceeding the capacity of ecosystems that support human life and allowing ecosystems to regenerate resources (Morelli, 2011). Companies are reporting on their environmental concerns in their annual/sustainability reports, and it is not uncommon to see the terms sustainability, environment, or social responsibility on companies' websites and in the annual reports. The Global Reporting Initiative (GRI) provides guidelines to companies for economic, social, environmental, and governance reporting. The GRI issued its first version of sustainability reporting guidelines in the year 2000 and it provides a common language of reporting to companies worldwide (Chatterjee & Levine, 2006). Like technology, the adoption of GRI guidelines is more common among companies worldwide (Nikolaeva & Bicho, 2011).

The companies responding to the environment's call for the protection of the environment from pollution and other hazards are in a better position to earn a favor from the stakeholders and improve their financial performance (Wagner, 2005). The firms with higher environmental care reputations are more likely to increase their market value than firms with lower environmental care reputations (Kim et al., 2021). Environmental sustainability and financial performance are positively correlated among Chinese banks and the Green Credit Policy of the banks was found to be an institutional factor driving the banks to enhance their financial performance (Weber, 2017). The current study also tries to find a relationship between the environmental part of corporate sustainability and the financial performance of firms in Pakistan.

Research relating to corporate sustainability is scarce in emerging economies (Amui et al., 2017). Corporate sustainability (CSR) research is still in the preliminary stages in Pakistan (Yunis et al., 2017). Corporate sustainability research in Pakistan is gathering momentum but requires consideration from scholars in capturing the companies' social and environmental performance (Alam & Rashid, 2022). The measurement of environmental sustainability is the focus of this research. This study fills the gap in the literature by developing a comprehensive corporate sustainability construct based on the environmental dimension. Moreover, the study explores the quality of environmental disclosure by the companies based on the criteria of quality of disclosure and the average quality of disclosure on the individual indicators of environmental sustainability.

Literature Review and Theoretical Background.

Theoretical Background.

The stakeholder and legitimacy theories have widely been used in the literature addressing corporate sustainability/CSR (Frynas & Yamahaki, 2016). The study is based on stakeholder and legitimacy theories. Moreover, these theories have been discussed separately along with the complementarities between these theories are explained.

The stakeholders of an organization may include shareholders, customers, suppliers, employees, labor unions, the environment, governments, the community, NGOs, and other interest groups. Stakeholders are the groups that influence an organization or may be influenced by the operations of an organization (Freeman, 1984). Stakeholder management is applied by organizations to resolve problems and conflicts among the stakeholders and organizations (Parmer et al., 2010). The managerial response to the needs of different stakeholders set the organization as a strong unit, enhancing its performance, and providing a strategic edge (Laplume et al., 2008). The environment is an important pillar of a group of

stakeholders around which an organization stands. The environment cannot be denied as a stakeholder of the organization and according to an approach based on fairness, the environment takes a legitimate position among the stakeholders (Phillips & Reichart, 2000). The environmental dimension is related to the future which is nuanced by the term sustainable development (Turker, 2009). Organizations having concerns for the environment are likely to contribute to future generations by preserving and not harming the environment. The understanding of stakeholder theory as addressing stakeholders, the natural environment seems to be a primary and important stakeholder of the organizations as found in the literature relating to the stakeholder theory (Driscoll & Starik, 2004). Environmental protection agencies, NGOs, and governments are the important stakeholders that need to be satisfied by the organizations.

The stakeholder theory is about seeking approval from the individual stakeholders, while the legitimacy theory claims to provide organizations approval from the broader society. Brown & Deegan (1998) argued that in response to the concerns of the community regarding the environment, the firms increased their disclosure relating to the environment. The societal concerns for the environment are responded to by organizations by enhancing environmental performance to get legitimacy from society. Organizations tend to environmental disclosure to mitigate the delegitimizing effect of environmental non-compliance in the previous periods (Mobus, 2005). To control the public perception of the reputation of firms, the bad environmental performance increasing the level of environmental disclosure can be seen through the lens of legitimacy theory (Amir et al., 2020). In developing economies, the legitimacy-threatening incidents, and the resultant efforts of the organizations to cover the losses, provide an understanding of the applicability of legitimacy theory (Azizul Islam, 2017). Organizational legitimacy proves to be useful in enhancing financial performance (Acquah et al., 2021). The organizations thus seek approval from society by showing environmental performance and the related disclosure in the company documents. Legitimacy theory is used as a tool to increase financial performance.

Both the stakeholder and legitimacy theories do not compete but complement each other. The theories overlap in the sense that stakeholder theory tries to obtain support from individual stakeholders, while legitimacy theory seeks approval from the broader spectrum of society (Frynas & Yamahaki, 2016). Both theories provide an understanding of a managerial motive to improve the organizational reputation and seek improved financial outcome for the firm.

Environmental Sustainability and Financial Performance

Past research has shown a mixed type of relationship between environmental performance and firms' financial performance. Overall, the literature has shown a positive relationship between environmental performance and financial performance. A positive relationship exists between the two constructs as reported by meta-analyses (Wang et al., 2016). However, the relationship is stronger for the firms in the developed economies as compared to the developing economies. This positive relationship shows that stakeholder and legitimacy theories are valid in developed and developing economies.

A stream of research has shown that firms' environmental efforts do not have an impact on profitability. The proponents of such an idea argue that firms' environmental contributions are costly and cause a decline in profits. Deswanto & Siregar, (2018) have found that the market value of firms is not affected by environmental disclosures and environmental disclosure has not been found as mediating the relationship between financial and environmental performance. Firms' environmental performance leaves an impact on the customers' satisfaction with the activities of the firms and firms using the environmental resources unsustainably invite a wave of anger from the customers not to choose the products (De Mendonca & Zhou, 2019). Thus, firms not responding to an environmental appeal may face deterioration in their profitability.

A large amount of past research has shown that there exists a positive relationship between environmental and financial performance. The repeated green rankings obtained by the large US firms proved to be contributing to the higher return on their stocks (Yadav et al., 2016). The environmental performance scores of British more reputed firms showed a positive and significant impact on the financial performance of firms measured through return on assets (ROA) (Elsayed & Paton, 2005). Pérez-Calderón et al. (2012) investigated 122 firms indexed on Dow Jones Sustainability Index Europe from different sectors and found that environmental performance generates value for the firms.

The study was conducted in the emerging economy of Indonesia by analyzing 22 firms, Harahap et al. (2019) found that the relationship between environmental performance and return on assets (ROA) of the firms remained positive. Another study by Budiharjo (2020) examined the impact of environmental performance on the financial performance of 15 Indonesian food and beverage firms and found that both constructs were positively and significantly related. Good environmental performance enhances the firms' reputation among the stakeholders and society and creates a win-win situation for the firms. Bukit et al. (2018)

argued that companies that are continuously monitored are having a higher environmental performance which leads to improved financial performance. Environmental efforts for its conservation and sustainable use protect the available resources in the natural environment and firms enjoy a reputation that results in good financial outcomes (Muth, 2014).

The firms' profitability measured by ROA, ROE, and ROS positively impacts the environmental performance of firms measured through energy intensity among Indian firms (Vinayagamoorthi et al., 2015). A study by Hongming et al. (2020) investigated 50 non-financial Pakistani firms and found that the environmental dimension of corporate sustainability positively and significantly influences the firms' profitability. The previous evidence in emerging economies has shown that there exists a positive relationship between the environmental and financial performance of the firms. Based on the discussion we hypothesize that,

H₁: The environmental performance of firms has a positive effect on financial performance.

Methodology

Data and Sample

The data for environmental performance has been gathered through content analyses of the company documents. The annual and sustainability reports have been retrieved from respective companies' websites. Content analysis is applied by influential studies to find the company scores on environmental indicators (Landrum & Ohsowski, 2018; Amini et al., 2018; Ellili & Nobanee, 2022). Data on financial and control variables have been obtained from the financial reports of companies. The study period has been selected from 2014 to 2020 because the Securities and Exchange Commission of Pakistan (SECP) issued its voluntary CSR guidelines in the year 2013. Seventy-nine non-financial firms have been selected as the study's sample based on the purposive sampling technique. The sampling criteria have been adapted from Haninun et al. (2018) who used purposive sampling in the case of Indonesian firms while finding a relationship between environmental performance and financial performance. The sample comprises only those non-financial firms that disclose environmental information in their annual/sustainability reports. The financial sector firms have a lesser tendency of reporting on the selected environmental indicators, hence, not included in the analysis. The sampling criteria are as follows: a) Firm must be reporting information on environmental sustainability. b) Must be listed as a non-financial firm on Pakistan Stock Exchange. Thus, all the non-financial firms listed on Pakistan Stock Exchange have been scrutinized first and those firms have been selected that provide reporting on environmental sustainability.

Variables and Their Measurement

The dependent variable in this study is accounting-based profitability. The accounting-based profitability is assessed through return on assets (ROA). The ROA is measured by dividing net income by the firm's total assets. In a meta-analysis of research relating to corporate sustainability and financial performance, Alshehhi et al. (2018) found that return on assets has been used as a measure of financial performance twice as return on equity (ROE) and more than other measures of financial performance.

The main independent variable in this study is environmental performance. Environmental performance has been measured on environmental indicators. The indicators have mainly been selected from the Global Reporting Initiative (GRI). Our environmental index consists of a total of 17 environmental performance indicators out of which 14 indicators have been selected from the GRI G 3.1 version and 3 indicators are based on the pilot survey of companies' annual/sustainability reports. The indicators and their sources are mentioned in Appendix A below.

Environmental sustainability has been assessed on the quality of disclosure criteria. The indicators have been scored on a four-point scale. A score of 3 is given to an indicator if it has been disclosed in monetary/quantitative form. The disclosure of indicators in statistical terms contributes to the quality of environmental disclosure. If an indicator is not reported in statistical terms and companies mention a tangible contribution, it is awarded a score of 2. In the third-place indicators on which companies provide only a generic disclosure and merely hint about their concern, are given a score of one. The indicators that are not disclosed by the companies have been awarded a score of zero.

$$\text{Environmental Performance Index (EPI)} = \sum X_i / N_i$$

X_i represents the sum of individual indicators' scores. The score on any indicator may range from 0 to 3. N_i is the maximum score obtained by all the indicators in the index. The total score in any year has been divided by 51 to get the values for the index.

Some other variables may affect the financial performance of firms. These variables have been introduced as control variables in the study. Firm size is assessed through the natural log of total assets (Elsayed & Paton, 2005). Financial leverage for capturing the effect of capital structure on financial performance has been introduced as a control variable (Wasara & Ganda, 2019). Leverage has been measured through the debt to total assets ratio. Firms' age from the listing year has also been applied as a control variable (Abdullahi & Bela, 2015). The revenues of the firms tend to contribute toward profitability. Hence, sales growth has

also been used as a control variable in the study (Kapoor & Sandhu, 2010). We have taken year dummies to control for the effect of yearly tremors. The Pakistani economy has experienced some setbacks in the last few years and companies have reported negative growth in the accounting profit. Besides this COVID-19 has also badly affected businesses around the world. Controlling for the crises, we have introduced dummy variables for the years in the models.

Econometric Estimation

The study is based on panel data. Our first point is to estimate the static panel data. As suggested by the Hausman test, panel data is estimated through fixed or random effects. The financial performance measured through return on assets (ROA) as a function of environmental sustainability and appropriate control variables is presented below.

$$(ROA)_{i,t} = \beta_0 + \beta_1(EPI)_{i,t} + \beta_2(Age)_{i,t} + \beta_3(LnAssets)_{i,t} + \beta_4(Sales\ Growth)_{i,t} + \beta_5(Lev)_{i,t} + \beta_6(YearDummies) + \epsilon_{i,t} \dots Eq\# 01$$

We will add a term u_i to the above equation if the case Hausman test approves random effects instead of fixed effects. An insignificant value of the Hausman test provides us the evidence that fixed effects are inconsistent and random effects are more appropriate (Elsayed & Paton, 2005). The random effects advocate that the firm-specific terms are distributed randomly.

There is a potential problem of endogeneity and reverse causation in the estimation of panel data. Firms with higher financial resources devote more to the environmental cause and this turns out to be beneficial in getting stakeholders' and societal approval and pays back to the firms (Landi & Sciarelli, 2018; Rahman et al., 2022). We apply the system GMM to control the problems of endogeneity. System GMM also controls for autocorrelation and heteroskedasticity in panel data models. The dynamic panel data equation with a lagged dependent variable for the estimation of GMM is presented below.

$$(ROA)_{i,t} = \beta_0 + \beta_1 (ROA)_{i,t-1} + \beta_2(EPI)_{i,t} + \beta_3(Age)_{i,t} + \beta_4(LnAssets)_{i,t} + \beta_5(Sales\ Growth)_{i,t} + \beta_6(Lev)_{i,t} + \beta_7(YearDummies) + \epsilon_{i,t} \dots Eq\# 02$$

Results and Discussion

Descriptive Statistics

Table 1 below depicts the descriptive statistics of dependent, independent, and control variables. The data of financial and control variables wherever not normally distributed have been winsorized at the 1st and 99th percentile as per the study by Baatwah et al. (2022). The option of removing the outliers has not been applied to avoid the loss of data. All the variables have been winsorized except the firm age and leverage. Firm listing age and leverage were normally distributed.

Table 1: Descriptive statistics results.

| Var | Obs. | Mean | Min | Max | Std. Dev | Skewness | Kurtosis |
|-----------|------|---------|---------|--------|----------|----------|----------|
| EPI | 553 | 0.2712 | 0.0392 | 0.9019 | 0.1605 | 0.7528 | 3.0307 |
| ROA | 553 | 0.08011 | -0.1357 | 0.4234 | 0.0931 | 0.8100 | 4.8925 |
| Age | 553 | 30.5949 | 01 | 72 | 17.0392 | 0.2632 | 2.1236 |
| LnAssets | 553 | 24.1840 | 21.9895 | 27.168 | 1.1694 | 0.3382 | 2.7854 |
| Sales Gr. | 474 | 0.0088 | -0.8336 | 0.4087 | 0.2386 | -0.7624 | 3.7382 |
| Leverage | 553 | 0.5323 | 0.0768 | 0.9853 | 0.2184 | -0.0567 | 2.2173 |

All the variables have been winsorized except the firm age. Firm listing age was normally distributed. The mean value of the environmental performance index (EPI) is 0.2712. The mean value depicts that the environmental indicators in the index are not being reported with much quantitative/monetary data. The skewness and kurtosis of EPI are 0.7528 and 3.0307 respectively, which show that the data of the variable is normally distributed. The average return on assets is 0.0801, showing that companies in the sample get an average return on assets of 8 percent. The average firm age is 30 and a half years. The average sales growth remained at 0.08 percent for firms. The average value of leverage shows that companies in the sample finance about 53 percent of their assets through debt.

The values of skewness and kurtosis remained well within the limit for the dependent and all the control variables. The value of skewness must remain within the range of -3 to +3 for and between -10 and +10 for kurtosis for the data to remain normally distributed (Kline, 2010; cited in Tylka, 2013). The data is normally distributed and allow for further estimation.

Correlation Analysis

Table 2: Correlation matrix.

| Variables | EPI | ROA | Age | LnAssets | Sales Gr. | Leverage |
|-----------|------------|------------|----------|----------|-----------|----------|
| EPI | 1 | | | | | |
| ROA | 0.2002*** | 1 | | | | |
| Age | 0.1632*** | 0.0194 | 1 | | | |
| LnAssets | 0.2288*** | -0.1073* | 0.0113 | 1 | | |
| Sales Gr. | 0.0413 | 0.2304*** | -0.0119 | -0.0060 | 1 | |
| Leverage | -0.1651*** | -0.3365*** | -0.0849* | 0.0556 | -0.0095 | 1 |

Table 2 shows that the return of asset is positively and significantly correlated with EPI. The increase in the environmental performance of the firms results in increased financial performance. The correlation between EPI and firm age is also positive and significant, showing that an increase in the age of the firm enhances environmental performance. Similarly, firm size is also positively and significantly correlated with environmental performance. The correlation coefficient of sales growth is positive but insignificant with

environmental performance. The leverage is negatively and significantly correlated with environmental performance, showing that an increase in risk causes a reduction in the environmental efforts of the firms.

Regression Analysis

Regression analysis involves two separate regression estimations for static and dynamic panel data. Simply we have two models. Model 1 is about static and model 2 is dealing with dynamic panel data. For model 1 we have performed the Hausman test. The chi-square value of the Hausman test hinted to analyze the results of random effects instead of fixed effects. In the model diagnostics, we performed a VIF test to check for the presence of multicollinearity among the independent variables. The mean VIF value being 1.11 shows that there is not any issue of multicollinearity. We have performed White heteroskedasticity and Breusch-pagan heteroskedasticity tests. The values of the White heteroskedasticity test have indicated the presence of heteroskedasticity in the data. In model 1 we will obtain robust standard errors to tackle the problem of heteroskedasticity. Some notable studies have used robust standard errors in the estimation of fixed or random effects in the panel data to cater to the problem of heteroskedasticity (Rhou et al., 2016; Simionescu & Dumitrescu, 2018; Saygili et al., 2022).

Regression results relating to random effects and GMM have been shown in table 3. Both the regressions have confirmed that there is a positive relationship between firms' profitability and environmental performance. In the random effects regression, the relationship between EPI and ROA is positive and significant at 5 percent. The result shows that with an increase in the environmental performance of the firms, the profitability experience an increase.

For control variables, the coefficients of firms' age and size are negative but insignificant. Sales growth positively and significantly affect financial performance. However, the effect of leverage on profitability is negative and significant.

In the GMM regression results, the lagged dependent variable is significant at a 1 percent level of significance. In the dynamic panel data estimation, it is necessary that lagged dependent variable be significant. The past year's financial performance has a positive and significant effect on the current year's financial performance. The GMM regression results have confirmed that there is a positive and significant relationship between environmental and financial performance. The coefficient of EPI is positive and significant with ROA at a 5 percent level of significance. Concerning the control variables, the results are similar as shown in the estimation of the random effects.

Table 3: Regression Results of Random Effects and GMM- EPI and ROA.

| <u>Independent Variables</u> | <u>Random Effects</u> | <u>GMM</u> |
|------------------------------|-------------------------|------------------------|
| L. ROA | ----- | 0.4220*** (0.0871) |
| EPI | 0.0805** (0.0395) | 0.0736** (0.0340) |
| Age | -0.00007 (0.0005) | -0.00026 (0.0003) |
| LnAssets | -0.0030 (0.0083) | -0.0051 (0.0046) |
| Sales Growth | 0.0614*** (0.0134) | 0.0629*** (0.0160) |
| Leverage | -0.14398*** (0.0303) | -0.0707*** (0.0219) |
| Constant | 0.1794 (0.2028) | 0.2118* (0.1203) |
| Year Dummies | Yes | Yes |
| AR (1) | ----- | 0.041 |
| AR (2) | ----- | 0.700 |
| Hansen Test | ----- | 0.117 |
| No. of Instruments | ----- | 49 |
| No. of firms | 79 | 79 |

Notes: ***, **, * are significant at 1%, 5% and 10% respectively. **Model 1:** Mean VIF 1.11, Hausman test chi-sq 7.26 (p-value 0.5088), White heteroskedasticity chi-sq 77.9 (p-value 0.0001), Breusch-pagan chi sq 0.61 (p-value 0.4883).

The p-values of AR (1) and AR (2) highlight that the problem of autocorrelation has been tackled in the estimation of system GMM. The p-value of AR (2) being 0.700 is more than the critical value of 0.05, indicating that there is no problem with second-order serial correlation. The value of the Hansen test shreds evidence about the instruments used in the GMM estimation. Hansen's test's p-value of 0.117 is greater than the critical value of 0.05 and provides evidence that the instruments are valid. The number of instruments is 49 which is less than the number of groups that are 79 in the current estimation. It is a pre-condition in the GMM estimation that the number of instruments is to be less than the number of groups. The study results provide a piece of evidence that firms' environmental efforts in Pakistan are paying them off in terms of financial benefits. Hence, we accept our hypothesis (H₁). The theoretical interpretations can be given in favor of stakeholder and legitimacy theory. The stakeholders who have concerns for the environment are providing support to the firms. The firms also get approval and support from society. The results are like those reported by Budiharjo (2020), Haninun et al. (2018) and Nguyen et al. (2022). The environmental

initiatives of the firms are beneficial for them in the long run as they tend to increase the firms' value and they ought to be disclosed by the firms (Wasara & Ganda, 2019; Abdi et al., 2022).

Conclusion

This study has addressed the environmental performance of Pakistani firms based on the scoring criteria of quality of disclosure. The quality of disclosure research is limited in developing economies and Pakistan is not an exception. Finding and analyzing the quality of disclosure is the major strength of this study. Furthermore, the study has found a relationship between environmental and financial performance and controls for the endogenous nature of such a relationship. There is a positive and significant relationship between these two constructs. Firms obtain financial benefits from their environmental disclosures. The study recommends more disclosure of the environmental indicators by the firms as this is beneficial for the firms. The study has found that environmental disclosure quality is lower among Pakistani companies. Companies need to disclose environmental information with more quantitative or monetary data. Besides this, inconsistent disclosure has been observed among the companies. The study strongly recommends a mandatory disclosure of specific indicators of the environment.

The study has some limitations. Only non-financial firms have been considered for analysis. Further research can include the financial firms for their environmental contribution. The control variables like industry affiliation can be introduced in the models. In future research, other measures of financial performance can also be introduced in the model to estimate the link between environmental and financial performance.

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Appendix A: Environmental Performance Index.

| No. | Indicators | Source | Mean | N |
|-----|--|--------------|------|----|
| 1 | Direct and indirect greenhouse gas emissions. | GRI G 3.1 | 2.10 | 21 |
| 2 | Initiatives for improvement in energy consumption and reductions. | GRI G 3.1 | 2.09 | 72 |
| 3 | Direct energy consumption and sources. | GRI G 3.1 | 2.04 | 20 |
| 4 | Initiatives for reductions in greenhouse gas emissions and reductions. | GRI G 3.1 | 1.91 | 58 |
| 5 | Energy is saved due to conservation and efficiency. | GRI G 3.1 | 1.81 | 48 |
| 6 | Environmental management system in practice. | Pilot survey | 1.79 | 48 |
| 7 | Reporting on reuse and recycling of water. | GRI G 3.1 | 1.68 | 54 |
| 8 | Weight of waste and its disposal. | GRI G 3.1 | 1.66 | 63 |
| 9 | Tree plantation and beautification programs. | Pilot survey | 1.55 | 67 |
| 10 | Provision of energy-efficient products and services | GRI G 3.1 | 1.52 | 8 |
| 11 | Use of material that is recycled input material. | GRI G 3.1 | 1.44 | 26 |
| 12 | Reclaiming the packaging materials. | GRI G 3.1 | 1.36 | 8 |
| 13 | Initiatives to mitigate the environmental impacts. | GRI G 3.1 | 1.34 | 56 |
| 14 | Participation in environmental awareness programs. | GRI G 3.1 | 1.19 | 44 |
| 15 | Paper consumption and saving | Pilot survey | 1.14 | 20 |
| 16 | Policies on environmental compliance. | GRI G 3.1 | 1.08 | 21 |
| 17 | Strategies for protection of adjacent lands-biodiversity. | GRI G 3.1 | 0.96 | 18 |

Note: The environmental performance indicators, their source, and mean scores are arranged in descending order of the mean scores.