Graduate School of
Business Administration

KOBE UNIVERSITY

ROKKO KOBE JAPAN

2014-32

The Role of Environmental, Social and Governance Initiatives in Securing Employee Retention

Oksana Arshynnikova Michiyuki Yagi
Katsuhiko Kokubu

Discussion Paper Series

The Role of Environmental, Social and Governance Initiatives in Securing Employee Retention

Oksana Arshynnikova[1], Michiyuki Yagi[2] and Katsuhiko Kokubu[3]

[1]Master Student, Graduate School of Business Administration, Kobe University
(2-1, Rokkodai-cho, Nada-ku, Kobe-city, 657-8501, Japan)
E-mail: oarshynnikova@gmail.com
[2] Associate Professor, Interfaculty Initiative in the Social Sciences, Kobe university
(2-1, Rokkodai-cho, Nada-ku, Kobe-city, 657-8501, Japan)
E-mail:yagi@ruby.kobe-u.ac.jp (corresponding author)
[3] Professor, Graduate School of Business Administration, Kobe University
(2-1, Rokkodai-cho, Nada-ku, Kobe-city, 657-8501, Japan)
E-mail:kokubu@kobe-u.ac.jp

Existing literature focusing on the impact of corporate sustainable responsibility (CSR) on employees can be broadly divided into two streams. One stream focuses on how CSR affects potential employees, suggesting that it contributes to increasing the attractiveness of a company by creating a good reputation for it. The other stream focuses on the impact of CSR on current employees, suggesting that CSR, including environmentally responsible behavior, positively influences corporate reputation and, in turn, employee commitment. The study empirically investigates the role of CSR in its three dimensions - environmental, social, and governance in retaining employees at an organizational level (i.e., employee turnover). This study uses a global firm-level dataset of 632 observations for 2005-2013 from Bloomberg Professional Service, regressing employee turnover on CSR activities in manufacturing, non-manufacturing, and energy and utilities industries. The results indicate that activities in the environmental dimension do not significantly affect the retention of employees. In the social dimension, CSR training has a significant effect on retaining employees in all industries, but is not robust in each of the three industries. In the governance dimension, few governance activities affect employee retention in the manufacturing and energy and utilities industries, although some governance policies (such as the percentage of women on the board of directors) reduce employee turnover rate in the non-manufacturing industry. This difference appears to be due to industry characteristics regarding the extent of fluidity of the labor market.

Key Words : *CSR, ESG initiatives, CSR training, employee turnover, global firms*

1. INTRODUCTION

The realm of corporate social responsibility (CSR) has attracted the attention of scholars and managers for decades[1)]. Much attention has been paid toward identifying how CSR initiatives may lead to gaining certain competitive advantages[2)]. Numerous scholars have argued that CSR creates a positive impact by allowing better access to valuable resources[3)], attracting and retaining higher quality employees [4), 5)], allowing for better marketing of products and services [6)], among others.

This study focuses on the advantages that CSR provides in terms of strategic human resource management (HRM), particularly in employee retention. Human resources are recognized as one of the most important sources of competitive advantage[7)]. A company's success is increasingly attributed to its ability to attract, motivate, and retain a pool of talented workers[8)]. At the same time, CSR initiatives are increasingly associated with better HRM practices and are also seen as an important and effective way to attract, motivate, and retain the pool of employees[9)]. This is because CSR reveals the values of the company to existing and potential employees and can be considered a part of the "employee value proposition." Moreover, from the perspective of the social identification theory, CSR contributes to organizational commitment as it facilitates the feeling of organizational membership and self-identification as a socially responsible member of society by virtue of belonging to a reputable company.

Existing literature focusing on the impact of CSR on employees can be broadly divided into two streams. The first stream concentrates on how CSR affects potential employees[10), 4), 5)]; studies suggest that CSR contributes to greater employer attractiveness by creating a good reputation or increasing the company's trustworthiness.

The second stream of literature focuses on the impact of CSR on current employees. One of the important topics here is the role of CSR in retaining existing employees. For instance, through a survey of 4,712 employees, Brammer et al. (2007)[11)] examined the impact of CSR on organizational commitment and reported that external CSR is positively related to organizational com-

mitment, with the contribution of CSR to organizational commitment being at least as great as job satisfaction. Turker (2008)[12] conducted a survey of 269 business professionals in Turkey and revealed that CSR toward social and non-social stakeholders, employees, and customers were the significant predictors of organizational commitment. The study by Dogl and Holtbrugge (2014)[13], which was based on a survey of 215 firms in China, Germany, India, and the United States, reported that a company's environmentally responsible behavior positively influences its environmental reputation and, in turn, employee commitment. The vast majority of studies in this area is based on self-reported surveys and focuses on the individual level of analysis that provides an insight into the underlying mechanisms linking CSR with its outcomes.

This study investigates the role of CSR initiatives in retaining employees, considering an organizational level outcome, namely, employee turnover, and provides evidence at an organizational level of analysis. In particular, we empirically investigate how engagement in CSR, namely in its three dimensions, environmental, social, and governance, affects employee turnover in companies worldwide in three industries: energy and utilities, manufacturing, and non-manufacturing. Our study addresses questions such as what kind of CSR activities are most effective in minimizing employee turnover, and whether the impact of CSR initiatives on turnover differs across the industries. Following the findings, the implications of how socially responsible business practices may benefit companies and their employees are discussed.

2. MATERIALS AND METHODS

(1) Model

Despite the considerable attention devoted to the topic of CSR, the literature in this area remains fragmented and there is some uncertainty about its definition[1), 14)]. We have used the definition suggested by Business for Social Responsibility (2000), regarded as one of those most frequently referred to[14)], which defines CSR as "business decision-making linked to ethical val-

ues, compliance with legal requirements, and respect for people, communities, and the environment." The definition covers the three main dimensions of CSR, namely environmental, social, and governance (ESG). These three dimensions, along with the economic dimension, are traditionally used for social responsibility performance evaluation and reporting[15]. Therefore, in this study, CSR is treated as a multi-dimensional construct that contains these ESG dimensions. Further, each dimension includes two sub-dimensions – policy and performance. Subsequently, we investigate the effect of the components of each sub-dimension on the employee turnover rate. It should be noted that the "performance" sub-dimension does not include cost-related items due to a lack of observations in the data available for this study.

The relationship between the company`s employee turnover rate and ESG dimensions (including the "policy" and "performance" sub-dimensions) of CSR is studied using the following regression model:

$$\begin{aligned} Turnover =& \beta_1 \cdot Epolicy + \beta_2 \cdot Eratio + \beta_3 Spolicy + \beta_4 CSRTrain + \beta_5 Fatality + B_6 Gpolicy \\ &+ \beta_7 Compliance + \beta_8 IndDir + \beta_9 WoBoard + \beta_{10} Aage + \beta_{11} AudMeet + \beta_{12} ESGLink \\ &+ \beta_{13} Score + \beta_{14} Controls + \alpha_i + \alpha_t + e \end{aligned} \quad (1)$$

where α_i and α_t denote the fixed effects of firm i and year t, respectively and e denotes the error term. Using the coefficient in the equation, we test the relationship between each variable and the employee turnover rate. Dependent variable *Turnover* denotes the number of employees that left the company within the past year, expressed as a percentage of the average total number of employees. Each independent variable used in the model is described below, with its expected sign hypothesized.

a) Environmental dimension

The policy sub-dimension is represented by the *Epolicy* variable, which indicates the degree of implementation of environmental policies. Performance is measured by *Eratio*, which refers to

the energy efficiency of the company as environmental responsibility is increasingly being demanded by employees. For example, Bauer and Aiman-Smith (1996)[16] conclude that companies with a positive approach to the environment are perceived as more attractive employers, while findings by Dogl and Holtbrugge (2014)[13] suggest that a company's environmental responsibility positively influences employees' organizational commitment. Therefore, we expect a negative sign of *Eratio* and *Epolicy* to employee turnover.

b) Social dimension

Spolicy indicates the degree of the company's implementation of social policies. The expected sign of *Spolicy* is negative to turnover because implementation of social policies ensures a favorable work environment and provides opportunities and other benefits apart from remuneration, which are part of the employee value proposition. The performance sub-dimension is represented by *CSRTrain* and *Fatality* variables. *CSRTrain* indicates whether the company has conducted CSR training for employees. We expect a negative sign of *CSRTrain* to employee turnover for the following reasons: first, training is a direct investment by the company into human capital. Second, the implementation of CSR training in the company contributes to a better communication of its values to the employees. Thus, it would contribute to higher commitment to the company[11] and subsequently, a lower employee turnover rate. *Fatality* expresses the degree of fatality cases in the company. The expected sign of *Fatality* to turnover is positive because a higher fatality ratio indicates potential danger to the life of the employee caused by worsening working conditions, inadequate safety and training, and other management practices, which subsequently leads to a decline in commitment.

c) Governance dimension

The expected sign of *Gpolicy*, *Compliance, IndDir*, *AudMeet*, *ESGLink,* and *Score* to turnover is negative because these factors contribute to the promotion of transparency, accountability, an ethical code of conduct, and commitment to ESG goals. This, in turn, facilitates a more favorable

and trustworthy working environment. The expected sign of *WoBoard* to turnover is negative because having women among Board members would promote equal opportunities for women and consideration of their needs at the workplace, and subsequently lead to lower female employee turnover rate. It can be especially significant for industries with more female employees such as retailing or services. The expected sign of *BAge* to turnover is positive because younger Board members, as well as executives, would be more receptive to the current dynamic environment and changing needs of employees.

Controls denotes control variables for firms, with firm-specific characteristics. We use four control variables: firm size (*Size*), return on assets (*ROA*), capital labor ratio (*lnKL*), and labor efficiency (*lnLEff*).

(2) Data

This study uses global firm data from Bloomberg Professional Service in the period 2005 - 2013. The data include ESG data, financial data, and CDP data. The sample contains 632 observations in three industry categories: energy and utilities (142 observations), manufacturing (366 observations), and non-manufacturing (124 observations). The sample excludes the financial industry due to the lack of observations, as only 11 observations have been identified.

Variables *Epolicy* and *Spolicy* refer to the number of environmental and social policies implemented by the company. Both *Epolicy* and *Spolicy* are operationalized as the sum of dummy variables. Each dummy variable refers to one of seven environmental or one of five social policies respectively. The types and descriptions of the policies are provided in **Table 1** and **Table 2**.

Environmental efficiency is measured by the logarithm of sales divided by the company's total energy consumption (*Eratio*). Fatality ratio (*Fatality*) is calculated as the number of fatality cases in a certain year divided by the total number of employees of the company. We use dummy variables to measure the implementation of CSR training (*CSRtrain*), Business ethics policy (*Gpolicy*), and the linking of executives' compensations to ESG goals *(ESGLink)*. *Compliance* is

operationalized as the sum of three dummy variables that indicate whether the company complies with GRI criteria, whether it is a signatory to the UN Global Compact, and if its application level was checked by the GRI. Independent directors and women on the Board are measured as a percentage of total Board membership. In order to measure the degree of ESC disclosure (*Score*), we use a proprietary Bloomberg score.

Control variables include firm size (*Size)*, return on assets (*ROA*), capital labor ratio (*lnKL*), and labor efficiency (*lnLEff*). *Size* denotes the natural logarithm of the firm's total assets. *ROA* is calculated as earnings before tax (EBIT) divided by total assets. *lnKP* is the logarithm of the capital labor ratio, calculated as net fixed assets divided by the number of employees. *lnLEff* denotes the logarithm of labor productivity, calculated as revenue divided by the total number of employees. **Table 3** shows the descriptive statistics.

a) Employee turnover rate

Since human capital is central to a company's performance, employee turnover is an important issue that may create significant challenges for the company. In HRM studies, employee turnover is an important metric as it has a significant cost implication, influences the overall business performance, and has the potential to become difficult to control[17]. In this study, we refer to employee turnover as "the number of employees that left the company within the past year expressed as a percentage of the average total number of employees." Employee departures affect the company in terms of financial costs as well as intangible knowledge and productivity-related costs. The loss of talented employees impedes a company's ability to innovate and develop new products as well as its relational capital such as its relationship with customers, investors, and other stakeholders.

Employee turnover rate tends to differ across industries. Our sample contains three industry categories: energy and utilities, manufacturing, and non-manufacturing. In the sample, the mean value of employee turnover differs across industry categories, namely, 8% in energy and utility,

10.53% in the manufacturing industry, and 14.05% in the non-manufacturing industry. When considering why employee turnover differs across industries, it is necessary to consider industry characteristics.

Traditionally, the energy and utilities sector rates lowest in terms of employee turnover[18], and many factors have contributed to this. First, companies in this industry used to enjoy a stable environment and profits, due to continuously growing energy demand and high entry barriers and thus relatively low competition. Second, the sector remains highly regulated. It is regulated in terms of price as many companies continue to be owned by the state or are regarded by the authorities as natural monopolies, preventing such companies from earning abnormal profits but allowing reasonable profits. Moreover, it is strongly regulated in social and environmental areas such as workplace safety, polluting the atmosphere, etc. Finally, since working in this industry typically requires specific skills, companies spend more to recruit and train new employees (per hire cost in the utilities industry is $3,936 as compared to $2,549 in retail/wholesale trade[18] and provide more inducement, such as benefits, to retain their staff. However, despite the overall relatively low employee turnover rate across the industry, it has become an increasingly problematic issue. Recently, the industry has been undergoing significant changes driven by a shift toward green power sources, a changing business and customer management model, deregulation, and increasing competition[19]. Under such circumstances, according to the PwC 14th Annual CEO Survey (2011)[20], 61% of surveyed CEOs in the oil and gas industry indicated that over the next three years, they were concerned about "competitors recruiting some of their best people." Additionally, 64% of these same CEOs believed that "there is a limited supply of talent with the right skills." PwC research indicates that utilities are losing workers at an accelerating rate. The voluntary turnover rate increased by a full percentage point between 2010 and 2012, and for high performers and early tenured employees, the rate of separation was especially high[21].

The manufacturing industry is characterized by moderate or low employee turnover rate. By definition, this industry is not regarded as “green” as working at a manufacturing site may be

connected to certain risks to employees' health. Therefore, similar to the energy and utility industry, the manufacturing industry is subject to various local and international mandatory standards and regulations in terms of their environmental and social performance. Moreover, working in manufacturing also requires certain skills, suggesting more hiring and training costs, which induces employers to provide more social benefits in order to retain their staff. Focus on social aspects, as well as high competition in the manufacturing industry, makes companies pay more attention to governance initiatives, which in turn contributes to lower employee turnover. For instance, as demonstrated in **Table 4**, in our sample, across all industry categories, the manufacturing industry has the best performance in the governance area.

It should be noted that cluster-level endogeneity might appear in the regression for "all industries" case. This is because employee turnover rate differs across different industries (**Table 5**), which provides that clusters appear based on employee turnover. Therefore, along with "all industries" level regression, we will check the robustness of results by regressing model in each of three industries.

3. RESULTS

Table 6 demonstrates the regression results for four cases: all industries, energy and utility, manufacturing, and non-manufacturing. In the case of all industries, among ESG dimensions, results are found in the social and governance dimensions. No statistically significant findings are identified in the environmental dimension, which implies that it is the least relevant for explanation of employee turnover. In the social dimension, employee turnover responses are statistically negatively on CSR training, which indicates that implementation of CSR training contributes to the decrease of employee turnover. This is in line with our hypothesized sign and supports the findings of Brammer et. al. (2007)[11] that training enhances organizational commitment. They suggest that training has a direct benefit to employees through corporate investment in employee

human capital. Additionally, from the perspective of social identity theory, it provides an indirect benefit through employee identification with the company's CSR. Moreover, we suggest that the implementation of CSR training increases the awareness of employees about the firm's ESG performance and, in this way, effectively communicates the firm's value to its employees.

A positive relationship between turnover and business ethics policy (*Gpolicy* variable), which is contrary to our hypothesis, can be explained by the increased recognition of ethical guidelines in companies with high employee turnover rate as an effective instrument for promoting a trustworthy and favorable working environment, and subsequently for retaining employees. However, when we check the robustness of this effect in each industrial regression, this positive relationship is not seen in any of three industry.

In the case of the manufacturing industry, no statistically significant results were found in any ESG dimension. The only statistically significant relationship with employee turnover was identified with control variable ROA. Such results may be explained by the industry characteristics such as environmental and social regulations and social benefits for employees. They minimize environmental impact, create more favorable working conditions, and subsequently explain the lack of employee's concern over environmental and social issues when compared to factors such as ROA. As for governance dimension, no significant results with respect to employee turnover may be explained by the industry's high overall performance in this area.

In the non-manufacturing industry, statistically significant results are found in the governance dimension, namely, for the percentage of women on the Board, implementation of the Board's audit meetings, and the linking of executives' compensations to ESG goals and disclosure. In particular, the results indicate that a higher percentage of women on the Board contribute to the decrease of employee turnover. This is because women representativeness at the executive and Board level promotes a better consideration of interests and needs of this demographic group, which is significant in non-manufacturing industries. Furthermore, employee turnover responds statistically negatively on implementation of Board's audit meetings and linking of executives'

compensations to the ESG goals. This suggests that such governance measures encourage an environment of accountability and transparency, enhance executives' commitment to ESG objectives, and in turn facilitates employee commitment. The results are in line with our hypothesis of the expected sign for these variables. Employees' concern over governance in this industry can be partially explained by the greater number of female workers who have stronger preferences for discretionary behavior and fair working practices[11].

At the same time, the positive sign of the result obtained for ESG disclosure score is contrary to the hypothesized one. Such a result can imply that in companies with high employee turnover, managers facilitate disclosure as an instrument to retain employees. This, in fact, is in line with legitimacy theory, which posits that organizations continually seek to ensure that they operate within the bounds, norms, and expectations of respective societies or targeted groups. In our case, it implies that knowing the employees' expectations of more transparency and disclosure, companies uses it to decrease employee turnover. Moreover, Deegan (2002)[23] suggests that, consistent with resource dependence theory, legitimacy theory suggests that if managers consider that the supply of a particular resource is vital to company survival, they will pursue strategies to ensure the continued supply of that resource. Targeted disclosure is mentioned among such strategies.

In the energy and utility industry, among all ESG variables, employee turnover responded statistically significant only to ESG disclosure. None of the significant results in the environmental and social dimensions can be explained the same way as in the manufacturing industry case, namely by strong environmental regulations imposed for the industry and a socially protected, favorable working environment. Similar to the non-manufacturing industry case, the positive sign of this relationship can be explained from the legitimacy theory perspective. It implies that in companies with a growing employee turnover rate, ESG disclosure has been facilitated to enhance organizational commitment.

4. CONCLUSION

CSR initiatives are increasingly believed to be an important instrument to retain employees. This study empirically examines how CSR, namely ESG initiatives, affects employee turnover in companies worldwide and in three industries – energy and utilities, manufacturing, and non-manufacturing.

The overall result suggests that initiatives in the environmental dimension do not significantly affect employee turnover. In the social dimension, our findings indicate that employee turnover responds statistically negatively to the implementation of CSR training. It contributes to a decrease in employee turnover as it helps to communicate the company's value more effectively, provides a direct benefit to employee through investment into human capital, and an indirect benefit through employee identification with the company's CSR. Further, in the governance dimension, the statistically positive response of employee turnover on business ethics policy suggests an increased attention to such policies at workplaces with high employee turnover, as fairness and equality at workplace contributes to higher organizational commitment. However, this relationship is not robust across all three industries.

Findings for separate industry cases suggest several conclusions. First, in the manufacturing industry, employee turnover is not significantly affected by CSR activities. Second, in the non-manufacturing industry, employee turnover is responsive to governance initiatives such as the percentage of women on the Board, implementation of the Board's audit meetings, and linking executive's compensations to ESG goals and disclosure. This finding emphasizes these employees' concern over fairness, transparency, and accountability, which is partially explained by the non-manufacturing industry employing more female workers than male workers and their strong preferences for transparent and fair working practices. In the energy and utilities industry, a significant relationship to turnover rate is found only with ESG disclosure, while its positive sign suggests greater disclosure as a reaction to increasing concern over employee turnover.

This study contributes to existing literature by adding to the evidence on the important role of CSR initiatives in employee turnover reduction. Results are obtained at an organizational level of analysis and are in congruence with the existing studies which, on an individual level of analysis, suggest that CSR initiatives contribute to higher organizational commitment[24), 11), 12)]. At the same time, this study has significant limitations. First, we used a simple model with no mediators or moderators taken into account, which does not allow for the consideration of underlying mechanisms linking CSR initiatives to lower employee turnover rate. Moreover, the sample used for the study is limited to 632 observations due to a wide range of independent variables and the limitations of available data.

The findings of this study have practical implications for managers. First, the results confirm that some CSR initiatives, particularly in social and governance dimensions, can be an effective tool to influence employee turnover. Companies should pay special attention to the implementation of CSR training and Business Ethic Policies. The implementation of CSR training will help to communicate and reveal the values of the company to employees and increase organizational commitment by investing in employee human capital and facilitating employee identification with company. The introduction of ethical guidelines in the company will enhance fairness and equality, contribute to the creation of a favorable work environment, and subsequently to higher organizational commitment and lower employee turnover.

Moreover, ESG initiatives, as a measure against high employee turnover, should be implemented with consideration of employee needs, bearing in mind the particular industry and industry characteristics. For instance, according to our results, employees in the non-manufacturing industry show more concern about governance initiatives such as an increased percentage of women on the Board, implementation of Board's audit meetings, and linking executives' compensations to ESG goals and disclosure. As already mentioned, this can be partially explained by more female workers and their strong

preferences for transparent and fair working practices. Therefore, promotion of equality, discre-

tionary behavior, transparency, and accountability at the workplace as measures for enhancing employee commitment is effective in non-manufacturing industries, and can be successfully practiced at workplaces where female employment is currently encouraged. Given the recent changes in the energy and utility industry, and growing concern about employee turnover, companies in these industries should put more efforts into articulating their values to existing employees and signaling it to potential employees, which can be effectively managed through extensive CSR training and ESG disclosure respectively.

ACKNOWLEDGMENT: This study was carried out as part of the SESAMI project in Kobe University, and was supported by research grant from the Research Institute of Advanced Management.

REFERENCES

1) Aguinis, H. and Glavas, A.: What we know and don't know about Corporate Social Responsibility: A review and Research Agenda, *Journal of Management,* Vol. 38, No. 4, pp. 932-968

2) Porter, M. E., & van der Linde, C.: Green and competitive, *Harvard Business Review*, Vol. 73, No. 5, pp. 120-134, 1995.

3) Waddock, S.A., Graves, S.B.: The corporate social performance – financial performance link, Strategic Management Journal, Vol. 18, No 4, pp. 303-319, 1997

4) Turban, D. B., and Greening, D. W.: Corporate social performance and organizational attractiveness to prospective employees, *The Academy of Management Journal*, Vol. 40, No. 3, pp. 658-672, 1997.

5) Greening, D. W. and Turban, D. B.: Corporate social performance as a competitive advantage in attracting a quality workforce, *Business & Society*, Vol. 39, No. 3, pp. 254-280, 2000.

6) Fombrun, C.J.: Reputation: Realizing value from the corporate image. Boston, MA: Harvard Business School Press, United States, 1996.

7) Pfeffer, J.: Competitive advantage through people. *California Management Review*, Vol. 36, No. 2, pp. 9-28, 1994.

8) Michaels, E., Handfield-Jones, H., Axelrod, B.: The war for talent, Boston: *Harvard Business School Press,* 2001.

9) Bhattachaya, S.S., and Korschun, D.: Using Corporate Social Responsibility to Win the War for Talent, *MIT Sloan Business Review*, Vol. 49, No. 2, 2008

10) Albinger, H. S. and Freeman, S.J.: Corporate Social Performance and Attractiveness as an Employer to Different Job Seeking Populations, *Journal of Business Ethics*, Vol. 28, No. 3, pp. 243–253, 2000.

11) Brammer, S., Millington, A., and Rayton, B.: The Contribution of Corporate Social Responsibility to Organizational Commitment, *The International Journal of Human Resource Management*, Vol. 18, No. 10, pp. 1701-1719, 2007.

12) Turker, D.: How corporate social responsibility influences organizational commitment, *Journal of Business Ethics*, Vol.89, pp. 189-204, 2009.

13) Dogl, C. and Holtbrugge, D.: Corporate environmental responsibility, employer reputation and employee commitment: an empirical study in developed and emerging economies, The International Journal of Human Resource Management, Vol. 25, No. 12, pp. 1739-1762, 2014.

14) Dahlsrud, A.: How Corporate Social Responsibility is defined: An analysis of 37 definitions, *Corporate Social Responsibility and Environmental Management*, Vol. 15, No. 1, pp. 1-13, 2008.

15) Global Reporting Initiatives: G4 Sustainability Reporting Guidelines, 2013, https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf accessed on June 14, 2014.

16) Bauer, T.N., and Aiman-Smith, L.: Green Career Choices: The Influence of Ecological Stance on Recruiting, *Journal of Business and Psychology*, Vol. 10, No. 4, pp. 445-458, 1996.

17) Hancock, J.I, Allen, D. G., Bosco, F.A., MacDaniel, K.R. and Pierce, C.A.: Meta-analytic review of employee turnover as a predictor of firm performance, Journal of Management, Vol. 39, No. 3, pp. 573-603, 2011.

18) SHRM Human Capital Benchmarking Database: Executive Brief: Differences in employee turnover across key industries, 2011 http://www.shrm.org/research/benchmarks/documents/assessing%20employee%20turnover_final.pdf accessed on July 01, 2014.

19) Pricewaterhouse Coopers: Energy Transformation: The impact on the power sector business model, 13th PWC Annual Global Power and Utilities Survey, 2013 http://www.pwc.com/gx/en/utilities/global-power-and-utilities-survey/assets/pwc-global-survey-new.pdf accessed on June 20, 2014

20) Pricewaterhouse Coopers: Growth reimagined: The talent race is back on, 14th Annual Global CEO Survey, 2011 http://www.pwc.lu/en/hr/docs/pwc-ceo-survey-talent-race.pdf accessed on July 07, 2014.

21) Pricewaterhouse Coopers: Power and utilities changing workforce: Keeping the lights on, December 2013 http://www.pwc.com/us/en/power-and-utilities/publications/assets/pwc-power-utilities-changing-workforce.pdf accessed on July 18, 2014.

22) International Labour Organization: Global Employment Trends for Women, 2012 http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_195447.pdf accessed on July 12, 2014.

23) Deegan, C.: The Legitimizing Effect of Social and Environmental Disclosures - A Theoretical Foundation, *Accounting, Auditing and Accountability Journal*, Vol. 15, No. 3, pp. 282-311, 2002.

24) Ali, I., Rehman, K. U., Ali, S.I., Yousaf, J. and Zia, M.: Corporate Social Responsibility influences, employee commitment and organizational performance, African Journal of Business Management, Vol. 4, No. 12, pp. 2796-2801, 2011.

Table 1 Description of environmental policies

No	Policy	Description
1	Biodiversity Policy	Indicates whether the company has implemented any initiatives to ensure the protection of biodiversity
2	Climate Change Policy	Indicates whether the company has outlined its intentions to help reduce global emissions of the Greenhouse Gases that cause climate change through its ongoing operations and/or the use of its products and services
3	Emission Reduction Policy	Indicates whether the company has implemented any initiatives to reduce its emissions to atmosphere
4	Energy Efficiency Policy	Indicates whether the company has implemented any initiatives to make its use of energy more efficient
5	Environmental Quality Management Policy	Indicates whether the company has introduced any kind of environmental quality management and/ or environmental management system to help to reduce the environmental footprint of its operations
6	Green Building Policy	Indicates whether the company has taken any steps towards using environmental technologies/ or environmental principles in the design and construction of its buildings
7	Waste Reduction Policy	Indicates whether the company has implemented any initiatives to reduce the waste generated during the course of its operations

Table 2 Description of social policies

No	Policy	Description
1	Equal Opportunity Policy	Indicates whether the company has made a proactive commitment to ensure non-discrimination against any type of demographic group
2	Fair Remuneration Policy	Indicates if the company has demonstrated a group wide commitment to ensure payment of fair wage (could be defined as minimum, living or some other criteria) to all Group employees, even in those countries that do not legally require a minimum wage
3	Health and Safety Policy	Refers to the fact whether the company has recognized its health and safety risks and responsibilities and is making any effort to improve the management of employee health and/ or employee safety
4	Human Rights Policy	Indicates if the company has implemented any initiatives to ensure the protection of the rights of all people it works with
5	Training Policy	Indicates whether the company has implemented any initiatives to train new and existing employees on career development, education or skills

Table 3 Descriptive statistics

Variable		Description	obs	mean	s.d	min	max
Dependent variable							
Turnover		Employee turnover rate which refers to number of employees that left the company within the past year expressed as the percentage of the average total number of employees	632	10.65	6.07	0.06	33
Independent variables							
Environmental							
Policy	*Epolicy*	Indicates the number of environmental policies implemented by company	632	4.32	1.23	0	7
Performance	*Eratio*	Energy efficiency calculated as logarithm of sales divided by total energy consumption	632	21.49	1.93	16.43	26.38
Social							
Policy	*Spolicy*	Indicates the number of social policies implemented	632	3.64	0.82	0	5
Performance	*CSRtrain*	Indicates whether company conducts CSR trainings	632	0.09	0.28	0	1
	Fatality	Fatality ratio, calculated as number of fatality cases divided by total number of employees	632	0.00	0.00	0	0.00
Governance							
Policy	*Gpolicy*	Refers to Business ethics policy	632	0.94	0.24	0	1
	Compliance	Indicates company's compliance to international regulations. Includes: GRI criteria compliance; Signatory to UN Global compact, Whether application level was checked by GRI	632	0.63	0.80	0	3
Performance	*IndDir*	Indicates % of Independent Directors	632	66.31	21.74	10	100
	WoBoard	Indicates % of women on Board	632	13.80	10.51	0	60
	BAge	Board's average age	632	58.83	3.94	46.08	70.33
	AudMeet	Indicates the number of Board's Audit Meetings conducted	632	6.57	4.35	0	57
	ESGLink	Indicates whether the executives' compensation is linked to ESG goals	632	0.05	0.22	0	1
	Score	Bloomberg's ESG disclosure score	632	52.41	9.51	24.79	85.12
Control variables							
ROA		Return on Assets, calculated as EBIT divided by total assets	632	0.10	0.09	−0.11	0.88
lnKL		Logarithm of capital labour ratio, calculated as fixed assets divided by number of employees	632	12.34	1.66	7.68	17.76
Size		Logarithm of total assets	632	23.42	1.43	18.46	27.25
lnLEff		Logarithm of labor efficiency, calculated as logarithm of sales divided on total number of employees	632	13.00	0.96	10.25	17.63

Table 4 Governance performance across industries

Variable	(manufacturing) mean	(non-manufac-turing) mean	(energy and utilities) mean
Gpolicy	**0.96**	0.89	0.93
Comp	**1.66**	1.46	1.69
IndDir	**67.19**	65.33	64.89
WoBoard	**13.98**	15.55	11.82
BAge	59.16	57.55	59.08
AudMeet	**6.26**	5.72	8.13
ESGLink	**0.07**	0.03	0.03
Score	**52.84**	48.80	54.45

Table 5 Employee turnover: Descriptive statistics across industries

Variable	obs	mean	s.d	min	max
Turnover					
All industries	632	10.65	6.07	0.06	33
Manufacturing	366	10.53	5.11	0.85	32
Non-manufacturing	124	14.05	8.16	2	33
Energy and utility	142	8.00	4.65	0.06	30

Table 6 Regression analysis

Variable	(1) all industries	(2) energy and utility	(3) non-manufacturing	(4) manufacturing
		Dep.variable: *Turnover*		
Epolicy	−0.18	−1.02	−0.81	−0.15
	(0.23)	(0.68)	(0.54)	(0.30)
Eratio	1.14	2.42	2.55	0.79
	(0.78)	(1.55)	(2.74)	(1.17)
Spolicy	0.05	−0.02	−0.43	5.16
	(0.31)	(0.67)	(0.81)	(0.44)
CSRTrain	−1.43*	−1.34	−1.77	−0.90
	(0.74)	(1.81)	(1.89)	(0.94)
Fatality	885.17	1365.36	−2004.91	651.31
	(579.00)	(1117.71)	(3448.79)	(686.75)
Gpolicy	3.50***	2.52	1.16	2.23
	(1.04)	(3.46)	(1.57)	(2.44)
Compliance	−0.37	−1.32	−1.10	−0.43
	(0.36)	(0.57)	(0.85)	(0.48)
IndDir	0.03	0.49	−0.06	0.33
	(0.02)	(0.06)	(0.73)	(0.02)
WoBoard	0.03	0.03	−0.28**	0.06
	(0.03)	(0.06)	(0.12)	(0.04)
BAge	0.02	−0.21	0.00	0.16
	(0.93)	(0.19)	(0.27)	(0.13)
AudMeet	−0.05	0.02	−0.53**	−0.14
	(0.05)	(0.07)	(0.26)	(0.11)
ESGLink	0.09	1.22	−5.69**	1.01
	(0.91)	(2.44)	(2.72)	(1.01)
Score	0.05	0.36***	0.31**	−0.43
	(0.40)	(0.12)	(0.12)	(0.05)
ROA	−7.31**	3.29	−0.96	−11.55**
	(3.67)	(11.09)	(9.04)	(4.57)
lnKL	−0.26	−0.09	9.48***	−0.88
	(0.38)	(0.44)	(2.56)	(1.39)
Size	−0.16	4.49**	0.39	0.11
	(0.83)	(2.00)	(3.07)	(1.43)
lnLEff	0.62	1.82	−0.90	0.69
	(0.83)	(1.35)	(3.07)	(1.35)
Constant	−22.41	−180.03***	−154.32*	−17.46
	(22.10)	(59.35)	(80.68)	(30.94)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
obs	632	142	124	366
year	05-13	05-13	05-13	05-13
Within R-squared	0.14	0.40	0.53	0.19
Overall R-squared	0.04	0.001	0.03	0.03

Notes: ***, **, and * denote significances at the 1%, 5%, and 10% level, respectively. Coefficients are without parentheses, and standard errors are in parentheses.

Acknowledgement This research is supported by JSPS KAKENHI Grant Number 25285138.

[2014.10.22 1179]