DeeperReflexionModel

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Miroshnychenko, Barontini, and Testa (2017)

Variables

Dependent Variables: Two indicators of corporate financial performance (CFP) :

1. Tobin's Q (Y1)
2. ROE (Y2)

Independent variables: Four indicators of Corporate Environmental Performance (CEP) :

1. Internal Pollution Prevention index (X1)
2. Green Supply Chain Management Index (X2)
3. Green Product Index (X3)
4. ISO 14001 (X4)

Control Variables:

1. Financial leverage (X5)
2. Sales Growth (x6)
3. Firm size (X7)
4. Country (X8)
5. Industry Sector (X9)
6. Year dummies

DataBase

The final sample includes 3490 publicly-traded firms from 58 countries and 19 industrial sectors covering the period from 2002 till 2014 inclusively

Hypotheses

H1: Internal PP practices have a positive impact on CFP

H2: Green Supply Chain Management have a positive impact on CFP

H3: Green Product Development Practices have a positive impact on CFP

H4: ISO 14001 adoption has a positive impact on CFP

$$Per_{it} = \beta_0 + \beta_1(PPI_{it-1}) + \beta_2(GSCMI_{it-1}) + \beta_3(GPI_{it-1})$$
$$+ \beta_4(ISO_{it-1}) + \beta_5(Controls_{it-1}) + d_t + c_i + i_i + \varepsilon_{it} \qquad (1)$$

where Per_{it} is a proxy of CFP (measured as Tobin's q or ROE), PPI_{it-1} is a proxy for a firm's pollution prevention, $GSCMI_{it-1}$ is a proxy for a firm's green supply chain management, GPI_{it-1} is a proxy for a firm's green product development, ISO_{it-1} is a proxy for a firm's environmental management standards, $Controls_{it-1}$ is a vector of control variables that include financial leverage (total debt-to-total assets ratio), sales growth (difference of logs of net sales) and firm size (the natural logarithm of total assets). d_t, c_i and i_i represent time, country and industry dummies. ε_{it} is an error term.

Figure 1: Econometric Model

Methodology

Jasper van Huijgevoort (2017)

Delmas, Nairn-Birch, and Lim (2015)

References

Delmas, Magali A., Nicholas Nairn-Birch, and Jinghui Lim. 2015. "Dynamics of Environmental and Financial Performance: The Case of Greenhouse Gas Emissions." *Organization & Environment* 28 (4): 374–93. https://pdfs.semanticscholar.org/cbe5/48cbdb9e569de3c79bad22f1f02442374ac8.pdf.

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