Mediating effect of corporate environmental responsibility on the relationship between external supervision and pro-environmental behaviour: evidence from renovation sector

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Keywords: pro-environmental behaviour, corporate environmental responsibility, public supervision, media supervision, governmental supervision, environmental regulation.

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The renovation projects experienced vigorous growth due to the fast urbanization and city renewal. An increasing number of waste has been generated within renovation activities and throw huge environmental and social hazards accordingly (Hao et al., 2020; Sun et al., 2020). Promoting individual pro-environmental behavior (PEB) and corporate environmental responsibility (CER) can help to address the renovation waste problems. Incorporating PEB initiatives in an organization is identified as a strategic tool for realizing CER and achieving sustainable performance (Suganthi, 2019; Yang & Gao, 2021). The previous studies revealed the impact of external supervision on corporate environmental responsibility, namely public supervision, media supervision, governmental supervision and environmental regulations (Graafland, 2019; Wan et al., 2021). However, little research has been done to explore the influence of external supervisions on PEB and the role of CER on the relationship between them. This empirical study aims to examine the impact of external supervisions on the individual PEB and mediating effect of CER.

After a review of the literature, nine hypotheses have been proposed and tested with CER as a mediating variable. All the hypotheses are summarized in Fig. 1.

![Figure 1. Theoretical framework](image)

In support of the proposed hypotheses, a questionnaire including the respondents’ demographic information and their perception about the variables of the hypotheses was designed and distributed to the employees in renovation companies in Jiangsu Province, China. Among the valid survey respondents (n=148), 37.43% were renovation workers, 24.56% were renovation designers, 25.15% were technical and management staff, and 12.87% were others, meaning a good representative sample.

SmartPLS 3.3.2 was employed for the data analysis. The partial least squares technique was used for the data assessment and prediction of the results based on the hypothesis testing for a range of determinants. Compose reliability analysis of determinants showed that all items gave a value of 0.8, representing an acceptable level of reliability of each determinant. The discriminant validity for the measurement model also confirms the reliability of the variables (see Table 1.).

| Table 1. The discriminant validity (Fornell-Larcker criterion) for the measurement model |
|-------------------------------|--------|-------------|-----------------|-----------------|-----------------|
| Variables                      | PEB    | CER         | Public supervision | Media supervision | Governmental supervision | Regulation       |

Some text content is replaced to ensure readability and accuracy.
The mediating effect of CER on the relationship between external supervision and PEB was also examined. The result shows that CER mediates the impact of public supervision, media supervision and governmental supervision on PEB. CER do not mediate the impact of environmental regulation on PEB. The result can be found in Table 3.

The findings reveals the important role of CER on individual PEB. The possible contribution of the research findings to the literature or the design of policy interventions that consider external supervision to CER and PEB, and future research directions are discussed.

Table 3. Effect size

<table>
<thead>
<tr>
<th>Hypotheses as Mediator</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>Total effect</th>
<th>VAF</th>
<th>Effect</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS ( \rightarrow ) CER ( \rightarrow ) PEB</td>
<td>0.201</td>
<td>0.134</td>
<td>0.335</td>
<td>40.065%</td>
<td>Partial mediation</td>
<td>Supported</td>
</tr>
<tr>
<td>MS ( \rightarrow ) CER ( \rightarrow ) PEB</td>
<td>0.121</td>
<td>0.059</td>
<td>0.180</td>
<td>32.640%</td>
<td>Partial mediation</td>
<td>Supported</td>
</tr>
<tr>
<td>GS ( \rightarrow ) CER ( \rightarrow ) PEB</td>
<td>0.045</td>
<td>0.072</td>
<td>0.117</td>
<td>61.618%</td>
<td>Partial mediation</td>
<td>Supported</td>
</tr>
<tr>
<td>ER ( \rightarrow ) CER ( \rightarrow ) PEB</td>
<td>0.251</td>
<td>0.059</td>
<td>0.310</td>
<td>18.936%</td>
<td>Non-mediation</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Note: \( \ast \)p<0.05, \( \ast \ast \)p<0.01, \( \ast \ast \ast \)p<0.001; PS-public supervision; MS-media supervision; GS-governmental supervision; ER-environmental regulation; VAF-variation explained.

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Reference


