Discussion of
“The Effects of Environmental Attitudes, Perceived Environmental Information Importance, Corporate Environmental Performance, and Independent Assurance on Investor Judgments”

W. Brooke Elliott
2012 Audit Symposium
Discussion of
“Assurance on Environmental Performance and Investor Judgments: The Importance of Environmental Attitudes”

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What do the authors find?

- The influence of environmental performance and assurance on investor judgments is dependent on investor sustainability/environmental attitudes.
Where does this paper contribute?

- CSR (Corporate Social Responsibility) is seemingly everywhere!
  - Prevalence of CSR performance measures in annual reports, on firm websites, and in social media.
  - Growth in mutual funds and invested capital that follow some socially responsible investing strategy.
  - Third party organizations generating independent CSR ratings (e.g., Newsweek Green Rankings) and assurance reports.
Where does this paper contribute?

• BUT still an open empirical question as to whether better CSR performance has positive implications for future financial performance and fundamental value (see e.g., Moser and Martin 2012).
  – Many archival studies provide evidence of a small positive relation between CSR performance and firm value (see e.g., Margolis et al. 2009 for a review, see also, Dhaliwal et al. 2011, Plumlee et al 2010).
  – BUT recent studies also provide evidence of a negative relation (see e.g., Izzo and Magnanelli 2012).
Where does this paper contribute?

• Further, it is unclear whether the documented relation between CSR and firm value in archival studies is intended or unintended.
  – There is this really awesome paper that shows that CSR performance can have an unintended influence (i.e., occurs outside of awareness) on investors’ estimates of fundamental value (Elliott et al. 2012).
Where does this paper contribute?

• Prior work has also shown that assurance can enhance positive CSR reporting (see e.g., Simnett et al. 2009.).
  – Assurance on positive CSR information increases analysts’ credibility assessments (Pflugrath et al. 2011) and leads investors to increase price estimates (Coram et al. 2009).
Where does this paper contribute?

- This paper has the potential to extend this prior work by examining how and why environmental attitudes attenuate or exacerbate the documented relations between CSR performance, assurance, and price estimates.
What could the authors improve?

Motivation

• Do a better job of positioning the paper in the emerging but already large literature examining CSR in an accounting context.
  – The incremental contribution here is investor sustainability attitudes – play this up!

• If you do #1, then easier to build tension into the motivation?
  – Given prior work, why would we not expect assurance to increase the credibility of incentive-consistent information?
  – Because investors with different CSR attitudes may view the signal from assurance on CSR very differently!
What could the authors improve?

Theory

• Back-off of strong assumptions about the influence of CSR on investor judgments.
  – The relation between CSR performance and firm value and CSR performance and price is still an open empirical question.
  – It is reasonable that some investors may intentionally infer a positive, neutral, or even negative relation between better CSR and firm value and price.
  – There is likely to be an unintended influence of CSR performance on estimates of firm value (independent of sustainability attitudes).

• Simply argue why investor sustainability attitudes may attenuate or exacerbate these potential relations.
What could the authors improve?

Theory – H1a and H1b

- What is the broad construct of interest as it relates to attitudes?
  - DSP, SRI, NEP...WTH?
  - Shareholder-focused perspective versus Stakeholder-focused perspective?

- Why would we not expect attitudes to matter as hypothesized in H1a and H1b?
  - Take the hypothetical (non-existent) rational economic man...sustainability attitudes may not influence what he thinks is important when making an investment decision.
What could the authors improve?
Theory – H2

- **What is the tension in H2?**
  - Prediction is that if participants state that environmental performance is relatively important then environmental performance will influence their investment judgments.
  - Why is this surprising?
  - More interesting question is WHY does it influence their investment judgments?
    - Willingness to Invest = f (estimate of firm value, preference for positive or negative CSR performance, others preference for positive or negative CSR performance).
What could the authors improve?
Theory – H3

• Why does assurance matter?
  – When CSR information is positive versus negative?
    • Voluntary disclosures that are incentive-consistent are inherently not credible, but those that are incentive-inconsistent are.
    • Prior research has shown that investors only respond to credibility cues for the former (see Hutton et al. 2003, Coram et al. 2009).
    • Unclear what the authors are predicting about the valence of the CSR information?
What could the authors improve?  
Theory- H3

- **Why does assurance matter?**
  - When investors have different opinions about the importance of environmental performance to investment?
    - Current argument is assurance will matter most for those who focus on environmental factors in making investment judgments.
    - Where is the tension...assurance is costly and could be a signal about commitment to CSR...what does this signal to those who focus on financial factors in making investment decisions?
H3: (5-6) – (1-2) > (7-8) – (3-4)
• H3: (5-6) – (1-2) > (7-8) – (3-4)
What could the authors improve?
Theory – H2 & H3

• Why make a big deal about filtered information?
  – Elliott et al. 2008 define filtered as “packaged by a professional intermediary” and unfiltered as “information disclosed by management and unaltered by professional intermediaries”.
  – This is not a manipulated factor.
  – Not clear how filtered vs. unfiltered would interact with attitudes or assurance.
  – The authors have simply provided the environmental and financial information in an identical format (which is not how most investors see this information).
What could the authors improve?

Construct Validity

• How is independent construct different than dependent construct for H1?
  – Independent construct of interest is sustainability/CSR attitudes which authors measure using...
    • *NEP (New Ecological Paradigm) scale.*
    • *Author developed SRI scale (attitudes toward environmentally responsible investing).*
  – Dependent construct of interest is relative importance of environmental and financial factors in investment decisions.
assurance reports are provided by nationally known public accounting firms.

Use the menu on the right-hand side of the page to navigate between reports. Click Enter Responses when you are ready to leave the report pages and enter your responses.

**Summary Financial Information**
Click on the icon next to a factor to view its definition.

<table>
<thead>
<tr>
<th>Financial Metrics</th>
<th>Value</th>
<th>Industry Percentile</th>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Per Share (EPS) Growth</td>
<td>42.40%</td>
<td>45</td>
<td>51.20%</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>13.25%</td>
<td>55</td>
<td>12.89%</td>
</tr>
<tr>
<td>Return on Assets</td>
<td>14.02%</td>
<td>60</td>
<td>4.38%</td>
</tr>
<tr>
<td>Current Ratio</td>
<td>1.79</td>
<td>65</td>
<td>1.62</td>
</tr>
<tr>
<td>Long-term Debt/ Equity</td>
<td>1.25</td>
<td>40</td>
<td>1.70</td>
</tr>
<tr>
<td>Inventory Turnover</td>
<td>4.17</td>
<td>50</td>
<td>4.15</td>
</tr>
</tbody>
</table>

**Summary Environmental Information**
Click on the icon next to a factor to view its definition.

<table>
<thead>
<tr>
<th>Environmental Metrics</th>
<th>Value</th>
<th>Industry Percentile</th>
<th>Industry Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Usage / Care</td>
<td>80.3</td>
<td>75</td>
<td>65.5</td>
</tr>
<tr>
<td>Climate-Change Policies and Performance</td>
<td>89.0</td>
<td>90</td>
<td>72.0</td>
</tr>
<tr>
<td>Pollution Policies and Performance</td>
<td>75.8</td>
<td>70</td>
<td>52.3</td>
</tr>
<tr>
<td>Product Impact</td>
<td>65.0</td>
<td>60</td>
<td>45.5</td>
</tr>
<tr>
<td>Environmental Resource Stewardship</td>
<td>72.3</td>
<td>65</td>
<td>56.0</td>
</tr>
<tr>
<td>Management of Environmental Risks</td>
<td>93.3</td>
<td>95</td>
<td>67.2</td>
</tr>
</tbody>
</table>
### Additional Questions

**How important was each factor in your investment judgments?**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very Unimportant</th>
<th>Unimportant</th>
<th>Neither Important nor Unimportant</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Usage / Care</td>
<td>☐</td>
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What could the authors improve?

Construct Validity

• How is independent construct different than dependent construct for H1?
  – At a minimum, they are vary highly correlated.
  – Regressing one on the other is not appropriate.
  – Further, two highly correlated measures should not be included as IVs without looking at some measure of multicollinearity (e.g., VIFs).
  – Asked importance questions after attitude questions thus participants likely interpreted measures similarly.
What could the authors improve?

Construct Validity

- **What to do?**
  - Look at univariate correlations.
  - Factor analysis – do measures load on one or multiple factors?
  - Could just make LHS financial importance.
What could the authors improve?

Construct Validity

- Dependent construct of interest is relative importance of environmental and financial factors in making investment decisions.
  - Authors did not elicit participants’ beliefs about the relative importance.
  - Asked importance of financial factors and environmental factors separately and then constructed measure.
  - Not sure what measure is actually capturing?
    - Ex post 91 participants for who environmental performance is less important and 67 for who environmental performance is equally or more important in making investment decisions!!
What could the authors improve? Analysis and Interpretation of Results

- Manipulation Checks
  - 19% of participants failed the environmental assurance manipulation check.
  - Is this correlated with environmental attitudes?
  - Could be information here that you are throwing away.
    - For example, attitudes may affect information acquisition.
What could the authors improve?
Analysis and Interpretation of Results

• Tests of H2 & H3
  – Divide sample on constructed importance measure at 0.
  • Given construct validity concerns, not sure what “0” means.
  • Why not divide at median (with sensitivity analyses examining effects of throwing out median and including median with low and high group).
  • Best approach likely is to use contrasts to test predicted effects so that you can use the variance from all the cells.
What could the authors improve?

Analysis and Interpretation of Results

- **H2** – Performance x Importance Interaction?
- **Investment amounts** – YES
  - $5085 (low) = $5489 (high) for “less important”
  - $4241 (low) < $6118 (high) for “more important”

- **Investment desirability** – YES
  - 5.74 (low) < 6.63 (high) for “less important”
  - 5.07 (low) < 7.11 (high) for “more important”
What could the authors improve?
Analysis and Interpretation of Results

- **H2 – Interpretation?**
  - Investors have good self-insight into influence of CSR on investment judgments.
  - Authors state this contradicts findings in Elliott et al. 2012, but it does NOT...
• H2 – Interpretation?
  – Elliott et al. 2012 separately examine the influence of CSR performance on estimates of fundamental value and willingness to invest.
    • Unintended effect of CSR on fundamental value and, in turn, willingness to invest for those who do not assess CSR.
    • For those who do assess CSR, no on average effect of CSR on firm value, but these investors are willing to pay more for the firm when CSR performance is positive vs. negative.
What could the authors improve?
Analysis and Interpretation of Results

• H3?
  – Authors say Assurance x Importance Interaction?
    • 2-way interaction is only sig. for investment amount in Table 4
    • In Table 5 it is sig. for both groups for invest amt.
  – But could be Performance x Assurance x Importance?
    • 3-way way interaction is not significant for either investment desirability or amount in Table 4
    • In Table 5 it is sig. only for “less important” group

• Why?
• H3: (5-6) – (1-2) > (7-8) – (3-4)
• H3: (5-6) – (1-2) > (7-8) – (3-4)
• 0.43 > 0.50?
• H3: (5-6) – (1-2) > (7-8) – (3-4)
• -865 > -2277?
• Yes, but not the expected pattern.
What could the authors improve?
Analysis and Interpretation of Results

- **H3 - Interpretation?**
  - I think there is a cohesive story, but it's not the one the authors tell.
  - It hinges on how investors with different attitudes interpret the assurance signal.
- Investors who view financial factors as more important see assurance as a costly signal of commitment to CSR and so invest less when positive CSR is assured.
What could the authors improve?

Analysis and Interpretation of Results

- **H3 - Interpretation?**
  - Investors who view environmental factors as more important see assurance as a credibility-cue and a commitment to CSR when CSR performance is positive so invest more.
  - When CSR performance is negative these investors view assurance as a costly signal of commitment to CSR and so invest more when CSR is negative.
    - Either because believe firm is committed to CSR and they value this.
    - Or perhaps motivated reasoning at play.
What could the paper contribute?

• Assurance on CSR interacts with sustainability attitudes in an unexpected but very cool way!

  – Managers would benefit from knowing how assurance on CSR affects the investment decisions of current and prospective heterogeneous investor base.

  – Regulators could benefit as well as they are likely to be faced with the decision as to whether to require that CSR measures be attested to.
Thanks!