Created Value as a Sustainability KPI for Integrated Reporting

Tomoki OSHIKA (Waseda University) oshikat@waseda.jp

Chika SAKA (Kwansei Gakuin University) chika@kwansei.ac.jp
Outline

1. Introduction

2. Background and Previous Studies

3. Hypotheses development

4. Sample Selection and Data Collection

5. Results of the Analysis

6. Summary and Conclusion
Why Integrated Reporting?

- Main components of Market Value have been shifting from tangible assets to intangibles.

![Components of S&P 500 market value chart](image-url)
Image of Integrated Reporting

The evolution of corporate reporting

1960 - Financial statements

1980 - Financial statements, Management Commentary, Governance and Remuneration, Environmental Reporting

2000 - Financial statements, Management Commentary, Sustainability Reporting, Governance and Remuneration

2020 - Integrated Reporting, Sustainability Reporting, Governance and Remuneration, Financial Statements
<IR> Value Creation Process

Oshika & Saka (AAA2015, Aug.12th)
Processes for Value Creation

The value that Showa Denki provides to customers takes the form of customer convenience with products that make a task easier, play a useful role, or increase experience. The specific mechanisms by which we implement that value include product groups with a high level of safety and optimal design; fast delivery and small-lot, multiple-model production capability; the ability to respond quickly to inquiries; and a willingness to enter into ongoing partnerships with customers. We have created a value creation narrative that puts these mechanisms into practice. We also believe that it is important to be knowledgeable about customers in order to more effectively pursue our goal of convenience.

Business Models

Showa Denki uses the following business models to create customer value. Showa Denki creates customer value through enhancement of productivity and customer satisfaction, utilizing our basic intellectual assets (i.e., technologies, R&D abilities, leadership of management, collaboration with partner companies, and sound finance), and leveraging specialized activities in each department. The sales department responds speedily and appropriately to questions from customers; the design and development department identifies customers’ needs and designs special-order products for them; and the production department undertakes ongoing process improvements through innovation.

Pursue convenience for customers

- Easier
- More useful
- More convenient

Know customers well

- Safe and optimal products
- On-time delivery, small-lot production of many products
- Speedy response to inquiries
- Sustainable partnership with customers

Business Models

- Customer value
  - Sustainable growth

- Branding
  - Enhance customer satisfaction
  - Enhance productivity (Cost reduction)

- Systems
  - Each employee takes ownership for the entire production process of an assigned product

- Activities
  - Production innovation
  - Be dashboard
  - Bee dash +
  - See dashboard, flowchart and robot

- Needs
  - Small-lot, multiple-model production
  - On-time delivery
  - Special-order capability

Six types of capital upon which Showa Denki relies

- Human capital
  - Employees responsible for design
  - Employees responsible for manufacturing
  - Employees responsible for development
  - Employees responsible for sales
  - Employees responsible for general affairs and human resources

- Intellectual capital
  - Human resource development
  - “Be dashboard”
  - 7-step approach to sales
  - Sales support system
  - Design system
  - Process management system

- Manufacturing capital
  - Giga Factory
  - Iga Factory
  - Verification Lab
  - Equipment
  - Sales facilities
  - IT infrastructure

- Social capital
  - Partner companies
  - Agencies
  - Public entities

- Natural capital
  - 3Rs for materials that can be reused
  - High-efficiency motors
  - Roof top garden
  - Solar power system

- Financial capital
  - Sales
  - Cash flows and other assets listed in financial statement

Management philosophy
- Code of conduct
- Company creed
- Quality policy
- Company slogans
- Environmental policy
What is Integrated Reporting?

- An integrated report
  - is a **concise** communication about how an organization’s strategy, governance, performance and prospects, which leads to the creation of value in the short, medium and long term. (FW1.1)
  - considers **various forms of capital** (e.g., financial, manufactured, intellectual, human, social and relationship, and natural) (FW2.10)

The cycle of integrated thinking and reporting, resulting in efficient and productive capital allocation, will act as a force for **financial stability and sustainability**. (FW Introduction)
Integrated Reporting Moves Towards the Mainstream

- International Integrated Reporting Council
  - Established in 2010 by A4S and GRI
  - Current member organizations: IOSCO, IASB, FASB, IFAC, WICI, BIG4, UNEPFI • UNPRI • UNGC, WBCSD, WWF etc.

- According to a survey by IIRC:
  - Nearly 50% of CEOs, CFOs and COOs says they are moving towards <IR> (Survey of 500 leaders by CIMA, AICPA, Black Sun)
  - 35% said they will adopt <IR> in the next 2 or 3 years

http://www.theiirc.org/yearbook2014/timeline-assets/timeline.html#vars!date=2015-01-20_17:15:40! (as of 15/2/28)
Motivation

- IIRC: The cycle of integrated thinking and reporting will act as a force for financial stability and sustainability.
- However, IIRC’s FW, which is principles-based, does NOT provide specific key performance indicators (KPIs).
- On the other hand, existing KPIs are NOT supported by empirical evidence on the usefulness to evaluate the firm’s financial stability and sustainability.
- We need to propose KPIs for Integrated Report, which are supported by empirical evidence.
Lessons from sustainable Japanese firms for KPIs

- Japan has the largest number of sustainable (long-established) firms.
  - Among 5,586 firms more than 200 years old in the world, over half are Japanese (3,146 firms, 56.3%)

Management philosophy of sustainable firms in Japan: ‘providing satisfaction to stakeholders’
  ⇒ (distribution of) value added
Research Questions

1. Can value added information be a possible KPI of sustainability?

2. Can information on the stability of profitability be a possible KPI of sustainability?

If we find characteristics of sustainable firms, we can propose them as KPIs of the Integrated Reporting.
Background and Related Studies

2.1. Integrated reporting and stakeholders

- Conceptual study (Eccles and Krzus, 2010; Gonzálbez and Rodríguez, 2012; Abeysekerà, 2013; Dumitru et al. 2013; Brown and Dillard, 2014; Cheng et al., 2014)
- Case study (Higgins et al., 2014; Stubbs and Higgins, 2014)
- Content analyses of integrated reports (Gurvitsch and Sidorova, 2012; Hindley and Buys, 2012; Van Zyl, 2013; Maubane et al., 2014; Rensburg and Botha, 2014)
- IR & firm characteristics (Frías-Aceituno et al., 2013b; Sierra-García et al., 2013)
- IR & financial performance (Dragu and Tiron-Tudor, 2013a)
- IR & ownership concentration (Jensen and Berg, 2012) and corporate governance mechanisms (Frías-Aceituno et al., 2013b; Velte, 2014)
- IR & country, political, cultural and economic factors (Eccles and Serafeim, 2011; Jensen and Berg, 2012; Dragu and Tiron-Tudor, 2013b; Garcia-Sanchez et al., 2013; Frías-Aceituno et al., 2013a)
- Effect of mandatory integrated reporting (Solomon and Maroun, 2012)
Background and Related Studies

2.1. Integrated reporting and stakeholders

Integrated report should provide insight into the nature and quality of the organization’s relationships with its key stakeholders, including how and to what extent the organization understands, takes into account, and responds to their legitimate needs and interests (IIRC).

- Stakeholder engagement by IR firm (Parrot and Tierney, 2012).
- Stakeholder theory in the context of sustainability reporting (Elijido-Ten, 2007; Elijido-Ten et al., 2010).
- Value added has the potential to serve as a practical and effective reporting instrument for integrated reporting (Haller and van Staden 2014).
Background and Related Studies

In summary,

- Integration level on integrated reports are not sufficient (Van Zyl, 2013).
- Many firms follow GRI 3.1 (Hindley and Buys, 2012).
- Academia and practitioners need to consider what to disclose (Haller and van Staden, 2014).
- They proposed to disclose ‘value added information,’ though they did not test through empirical analyses.
Background and Related Studies

Two aspects of value by IIRC FW:

1. Value created for the organization itself, which gives financial returns to the providers of financial capital → Sec. 2.3

2. Value created for others (i.e. stakeholders and the society) → Sec. 2.2

Making the other stakeholders happy does not necessarily mean the shareholders are unhappy.
2.2. Created value for stakeholders

- Value added: simplest and most immediate way of putting profit into proper perspective vis-a-vis the whole enterprise as a collective effort by stakeholders (ASSC, 1975).
- Distributional aspect of value added shows how value added has been used to pay stakeholders contributing to its creation (ASSC, 1975).
- Value added has usefulness, superior explanatory power, lower variability, and higher persistency (Riahi-Belkaoui and Ronald, 1994a, 1994b; Evraert and Riahi-Belkaoui, 1998).
- Key reporting instruments for integrated reporting (Haller and van Staden, 2014), but no evidence.
Background and Related Studies

2.3. Created value for the organization

- Firm’s social performance & financial performance (Margolis and Walsh, 2003; Orlitzky et al., 2003; Allouche and Laroche, 2005; Beurden and Gössling, 2008)

- There are some KPIs that seem to be related with short- and mid-term financial performance. But few evidence are provided if these KPIs actually lead to firm long-term financial stability and sustainability.
Research Methodology

- Few evidence of sustainable KPIs which lead to firms’ sustainability exist.
  
  → Because a long experimental period is needed.

- Instead we focus on firms that have survived for more than 100 years, or that have already achieved sustainability.
Hypotheses Development

- Based on stakeholder theory, firms need to broadly distribute their value added among stakeholders to achieve and share sustainability.

- Management philosophy of sustainable firms in Japan: ‘providing satisfaction to stakeholders’.

H1: Distributions to stakeholders other than shareholders are larger in sustainable firms.
Hypotheses Development

◆ A primary goal of integrated reporting is to explain to providers of financial capital how an organization creates value over the short, medium and long term (IIRC).

◆ If a firm distributes larger proportion of the value added to stakeholders other than shareholders, the firm needs to ensure future better distribution to shareholders.

◆ To convince the shareholders, the stability of profit and thus sustainability over the long term is essential.

H2: The stability of profitability is higher in sustainable firms.
Samples and Data

- Sustainable firms (i.e., established on or before 1913) are selected using *Orbis* database.
- We limited to the firms in a country with 10 or more sustainable firms to ensure comparability.
- 39,172 firms are selected.
- In each analysis, we limited samples with available data, 11,631 for H1, and 6,254 for H2.
Hypothesis 1: Distribution among Stakeholders

We consider four groups of stakeholders.

I. Employees (costs for employees)
II. Creditors (interests paid)
III. Government (tax paid)
IV. Shareholders (net income)

- The sum of the above is defined as ‘total added value,’ and calculated the proportion of each distribution to the total added value.
- We analyzed the data of FY2012.
Hypothesis 1: Preliminary Result

Panel A: Proportion of distribution on the total added value

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Distribution to Employees</th>
<th>Distribution to Creditors</th>
<th>Distribution to Government</th>
<th>Distribution to Shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable firms</td>
<td>714</td>
<td>0.681</td>
<td>0.049</td>
<td>0.051</td>
<td>0.178</td>
</tr>
<tr>
<td>Other firms</td>
<td>11631</td>
<td>0.461</td>
<td>0.043</td>
<td>0.043</td>
<td>0.247</td>
</tr>
<tr>
<td>Wilcoxon Z-score</td>
<td></td>
<td>9.848</td>
<td>2.061</td>
<td>1.388</td>
<td>-6.344</td>
</tr>
</tbody>
</table>

※ The exhibit shows the median of all the samples of the proportion of the distribution on the total added value to each of four groups. Since the median is shown, the sum is not required to be 1.
※ ***, **, * show that the Z-score is significant at 1%, 5%, and 10% (two-tailed), respectively.

◆ The distribution to ‘other’ stakeholders are larger in sustainable companies.
◆ Naturally, the distribution to shareholders is smaller.
→ Simple question… Why do the shareholders not complain?
Hypothesis 1: Additional Analysis

Panel B: Total added value to sales

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Total added value / Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable firms</td>
<td>714</td>
<td>0.291</td>
</tr>
<tr>
<td>Other firms</td>
<td>11631</td>
<td>0.196</td>
</tr>
<tr>
<td>Wilcoxon Z-score</td>
<td>10.080***</td>
<td>0.196</td>
</tr>
</tbody>
</table>

- The sustainable companies provide larger pie from the beginning.
- Thus, the slice to the shareholders may be larger (at least not smaller) even though the proportion is smaller.
- Still puzzling… Why do the shareholders not ask more?
Hypothesis 2: Stability of Profitability

- To convince the shareholders for smaller distribution of a given year, firms need to ensure the shareholders will receive more in the future.
  - To do so, the profitability should be stable and high over time.

- We analyzed gross margin, EBIT ratio, net income ratio, ROE, and two ROAs.
Hypothesis 2: Profitability

Panel A: Profitability

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>gross margin</th>
<th>EBIT ratio</th>
<th>net income ratio</th>
<th>ROE (EBIT)</th>
<th>ROA (net income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable firms</td>
<td>563</td>
<td>0.434</td>
<td>0.072</td>
<td>0.043</td>
<td>0.097</td>
<td>0.060</td>
</tr>
<tr>
<td>Other firms</td>
<td>6254</td>
<td>0.417</td>
<td>0.066</td>
<td>0.036</td>
<td>0.080</td>
<td>0.058</td>
</tr>
<tr>
<td>Wilcoxon Z-score</td>
<td></td>
<td>1.062</td>
<td>1.628</td>
<td>2.888</td>
<td>3.493</td>
<td>1.210</td>
</tr>
</tbody>
</table>

※ The exhibit shows the median of all the samples.
※ ***, **, * show that the Z-score is significant at 1%, 5%, and 10% (two-tailed), respectively.

◆ Profitability is higher in the sustainable companies.
Hypothesis 2: Stability of Profitability

Panel B: Stability of profitability

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>gross margin</th>
<th>EBIT ratio</th>
<th>net income ratio</th>
<th>ROE</th>
<th>ROA (EBIT)</th>
<th>ROA (net income)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable firms</td>
<td>563</td>
<td>0.033</td>
<td>0.034</td>
<td>0.035</td>
<td>0.086</td>
<td>0.034</td>
<td>0.033</td>
</tr>
<tr>
<td>Other firms</td>
<td>6254</td>
<td>0.039</td>
<td>0.054</td>
<td>0.056</td>
<td>0.114</td>
<td>0.052</td>
<td>0.050</td>
</tr>
</tbody>
</table>

※ We calculate the standard deviation for nine years between FY2004 and FY2012.  
※ The exhibit shows the median of all the samples.  
※ ***, **, * show that the Z-score is significant at 1%, 5%, and 10% (two-tailed), respectively.

The stability of profitability is higher (the standard deviation is smaller) in the sustainable companies.
Summary and Conclusion

- KPIs for integrated reporting are critically needed, but no empirical evidence so far.
- We empirically explore sustainability KPIs based on two interrelated aspects of value under the IIRC framework.
  - Sustainable companies distribute larger proportion of the total value added to other stakeholders.
  - Sustainable companies satisfy the shareholders as well, by achieving higher and more stable profitability.
- We provide the first evidence that the value added distribution and the stability of profitability distinguish firm’s financial stability and sustainability. ➔ possible KPIs for IR
Summary and Conclusion

◆ Contributions
  ◆ First evidence that value added and the stability of profitability information are actually useful to evaluate the firm’s financial stability and sustainability.
  ◆ We provide a new perspective in the search for sustainability KPIs.
  ◆ Since our empirical data consists of all listed companies worldwide, our results could be robust and general.

◆ Limitation
  ◆ The characteristics of the firms which already achieved the sustainability are not necessarily the characteristics of the firms to be sustainable from now.
Thank you very much.
We appreciate your comments to the following emails.

Tomoki OSHIKA (Waseda University)
大鹿 智基 （早稲田大学）
oshikat@waseda.jp

Chika SAKA (Kwansei Gakuin University)
阪 智香 （関西学院大学）
Summary and Conclusion

Potential research agenda (Excerpt from De Villiers et al., 2014, AAAJ)

- Is the decision to disclose IR value relevant? Do the financial markets react a value premium?
- What is the theory (e.g. legitimacy theory) supporting IR?
- How to assurance/audit of IR?
- How to identify and disclose stakeholder value?
- How a firm deals with the risk and the risk assessment process?
- How will the differences in institutional rules, structure and corporate culture in different countries influence to practice of IR?
- Which stakeholders are most influential in affecting the direction of IR standard setting?
- How and to what extent are IR process truly integrated in firm’s management control system/value chain/disclosure/?