Defining Sustainability Materiality: A Review and Critique

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Defining Materiality in Sustainability Context: A Review and Critique

Abstract: This paper critically reviews prior definitional works on materiality in sustainability context, by patterning these definitions to three approaches. It critiques ‘simple synonym approach’ on its implicit and unclear expression on ‘materiality towards whom’; and shareholder-based approach, which recognizes investors as the materiality intention, on its economic-core view limiting the scope in selecting material information. Compared to the two approaches, stakeholder-based approach provides a more holistic and long-term scope on judging materiality of sustainability information. But current state of this approach is problematic in the vague, foggy and nonoperational definition content. This paper proposes three critical questions which the stakeholder-based approach needs to address, and which may put insight on future study on exploring and defining sustainability materiality.

Key words: sustainability accounting, sustainability report, materiality, stakeholder theory and analysis, sustainability


1. INTRODUCTION

1.1 The Role of Materiality in Sustainability Reporting

The corporate responsibility view is well established that sustainability reporting is grounded on a duty of a company to account to those who it impacts on, about issues of concerns to the stakeholders (Zadek & Merme 2003). Nevertheless, sustainability reports have been challenged by the need to clearly and concisely provide the comprehensive data required by the report users (Environment and Business Editorial Comments 2007), confronting with the problems that sustainability information covering a wide range in economic, social and environmental aspects. A remarkable consequential phenomenon is that huge time and cost has been spent on dealing with the booming data on sustainability, but reporting effectiveness seems little. This situation can reflect on a manager’s statement quoted by AccountAbility (2006, p.25): ‘Our stakeholders were telling us on one hand that the report is far too long. But if we ask them what we are missing, they are also demanding more and more information to be included.’

To meet this information challenge, an emphasis on materiality can be the key point (Zadek & Merme 2003). Materiality is a key and basic concept in financial accounting, and is defined as to
magnitude of financial information that would influence significantly on economic decision of users of financial statements (See Financial Accounting Standards Board (FASB) 1980; General Accepted Government Auditing Standards (GAGAS) 2010; Securities and Exchange Commission (SEC) 1995). A chief function of materiality in financial reporting is to identify and select the financial accounting information useful, relevant and important to financial providers in their decision making. With this function, the concept or principle of materiality is suggested to be applied in the context of sustainability reporting, by identify whether or not the sustainability issues are significant and relevant to the report users. Materiality is used as a filter to ‘sea of data’: to let material data within; and immaterial data without. In this way, not all data that generated from the sustainability performance are need to be studied and reported; rather, only information material to report users remains in the corporate report.

1.2 The Needs to Redefine and Reconceptualize Materiality

A question rises; can materiality defined in financial accounting context meet the practical requirements of sustainability reporting? That is, we understand the usefulness of materiality concept in selecting and prioritizing reporting information, can we apply directly the definition(s) of materiality in financial context to sustainability context? It seems not. The traditional definition of materiality is defined in financial context and is recognized as a key concept on financial reporting auditing and accounting. Some accountant institutions give their own definitions for Materiality, such as materiality in FASB Statement of Financial Accounting Concept No. 2 (SFAC No. 2). It is defined as “The magnitude of an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.”

A more influential definition is given by International Accounting Standards (IASs): “Information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statement. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cutoff point rather than being a primary qualitative characteristic which information must have if it is to be useful.”
Materiality, which is defined and applied in the context of financial accounting, is known as ‘economic/financial materiality’, however in an extended context on sustainable development, the definition of ‘materiality’ needs to be reassessed.

In sustainability reports, the scope is broadened to cover social and environmental as well as financial performance, with audiences of reports are extended from financial capital owners to a wide range of stakeholders. But traditional materiality, or financial materiality, can to fulfill the basic requirements of sustainability reports: the traditional materiality only captures information relevant to short-term performance and risks on financial aspect (AccountAbility 2007); non-financial information that a wide range of stakeholders need is out of discretion of the traditional materiality.

Zadek and Merme (2003) criticize traditional definition on materiality as ‘an overly narrow approach’: traditional definition focuses on only investors however excludes aspects of company operations that concern other stakeholders in making investment, employment, purchasing and public policy decisions. Then the concept of materiality would need to be reassessed in this new context.

2 PATTERNING DEFINITIONAL WORKS: THREE APPROACHES

What underpins why organizations need to report their sustainability performance is the assumption that those parties who use the reports take sustainability issues into account (Deegan and Rankin 1997; Flynn 2009). Thus, not only financial information, but also non-financial information, can be material, for example, ‘environmental information is material to report users’ (Deegan and Rankin 1997). And coverage of the material topics and indicators should be sufficient to reflect economic, environmental and social impacts, and should enable report users to assess the reporting organization’s performance in the report period.

Since the pioneer work of Deegan and Rankin (1997) to consider the materiality of environmental information, there has been effort by researchers, institutions, or companies themselves, to redefine materiality in sustainability context. After reviewing prior work on redefining materiality, I categorize these definitions into 3 patterns:

- **Synonym approach** which refers ‘materiality’ to simple and direct synonym(s).
- **Shareholder-based approach** on the financial value of non-financial information to investors;
- **And stakeholder-based approach** identifying information needs of stakeholders.

2.1 Simple Synonym approach
In explaining what ‘new materiality’ is, some researchers do not answer clearly the question ‘material to whom’. They often simply relate or equate the concept of materiality to ‘importance’ (e.g., Deegan and Rankin 1997; Alison and Sean 2004), or ‘usefulness’ (Deegan and Rankin 1997), or ‘relevance’ (Casey 2007).

Deegan and Rankin (1997) pioneer the work of materiality of non-financial information. In a survey of some annual report users, they discover that environmental information can be material to these users. However, the user groups they studied include only financial providers and researchers/academics. They do not point out clearly whether or not the conclusion can be generalized to other non-financial stakeholders (e.g., communities, customers, NGOs, employees, etc.), those who are influenced directly by environmental information. And ‘materiality’ is not given a formal and definitional explanation in this article. Rather ‘materiality’ is simply interpreted as ‘importance’ and ‘usefulness’. That is, it views ‘material’ the same thing as ‘important’ and ‘useful’. This view reflects on the questionnaire in the survey, where report users are asked whether environmental information is important to their decision making; and whether such information is useful.

Casey (2006) considers materiality as one of criteria to assess sustainability report content. ‘Materiality’ is related to ‘relevance’ and is explained as ‘things that matter most with clear prioritization of major sustainability impacts (both adverse and beneficial) and major risks and opportunities.’ This definition uses synonyms ‘relevance’, ‘of major impacts’, ‘of major risks and opportunities’ to interpret materiality. However, ‘material to whom’ still remains unanswered.

2.2 Shareholder-based Approach

Shareholder-based approach to redefining materiality focuses non-financial information on its financial impacts on capital providers including investors, shareholders, and their agent such as the management and financial analysts. In this definition approach, non-financial information is reviewed and tested by materiality on the ground of traditionally financial accounting view: materiality definition is still in the ground of traditional definition, although the scope is extended into non-financial information.

National Round Table on Environment and Economy (NRTEE) (2007) research on the term ‘materiality’ based on how environmental and social disclosure data affect on investors decision. From their view, what is material in reporting to other stakeholders or users of broader types of company
reporting, especially regarding environmental and social issues, may be determined “financial.” That means some environmental and social data should be financially material.

The shareholder-based approach on materiality definition, which is applied in reporting practice, reflects on disclosure necessity of non-financial issues with direct financial impacts, those financial impacts which are measured in terms of ‘environment cost’, ‘legislation fine’, ‘environmental liabilities’, and so on. Report preparers often disclose these social and environmental issues and allocate their financial impacts into appropriate accounts and journals in accordance with relevant financial report guidelines.

- **Security Authorities’ definitions**

Some Security Authorities follow the financial way to define materiality of social and environmental information, although they are in different nations and express what materiality is in different tones.

- in USA, financial materiality is the fundamental criterion for determining specific reporting requirements. The SEC requires the Management’s Discussion and Analysis section of the annual report to detail current conditions which may generate material impacts on a company’s financial performance, including specific information on material events and uncertainties that would cause reported financial information not to be necessarily indicative of future operating results, or of future financial conditions.

- In Canada, for the reporting of social and environmental information, it is required to the extent that it is deemed to be financially material. In Ontario, the Securities Act requires the timely reporting of information on any “material change” for a company. As well, the Toronto Stock Exchange (TSX) has established disclosure guidelines in line with the Securities Act (Ontario), with a definition of “material information” broader than “material change”; specifically, the TSX definition includes information concerning rumours and speculation that may also have a financial impact on a company.

- **ACCA: material sustainability impacts under financial reporting guidelines**

On how to deal with disclosure of environmental issues, Association of Chartered Certified Accountants (ACCA) (2007) proposes 3 example cases. The answer that ACCA (2007) proposes reflects on the thought of shareholder-based approach on materiality. For example, in one case, an oil company purchases its major competitor, and found that affected by the laying of pipeline. There was no legal obligation to carry out the work but the company felt that there would be a cost of around $
150 million if the farmland was to be restored.

In view of ACCA (2007), of relevance to the farmland restoration is IAS 37 ‘Provisions, contingent liabilities and contingent assets’. Provisions for environmental liabilities should be recognized where there is a legal or constructive obligation to rectify environmental damage or perform restorative work. The mere existence of the restorative work does not give rise to an obligation and there is no legal obligation. However, it could be argued that there is a constructive obligation arising from the company’s approach in previous years, which may have given rise to an expectation that the work would be carried out. If this is the case, a provision of $150m would be required in the financial statements. In addition, this provision and specific examples of restoration of land could be included in the environmental report (See ACCA Corporate Report 2007, p. 34 and p. 104).

We can see that the major consideration here for disclosing and how to disclose the possible environmental liability is in the light of relevant financial reporting guidelines, for example, in this case, IAS 37.

2.3 Stakeholder-based Approach

Compared to shareholder-based method in which the capital providers remain as the dominant concerns in defining materiality of non-financial information, some researchers propose a different way to the definition of materiality by identifying the needs of a wider range of stakeholders. This way, which I pattern as ‘stakeholder-based method’, demonstrates explicitly that stakeholders’ decisions are influenced by material sustainability issues of the organization, but also can change the performance of the organization. That is, both sides, stakeholders and the organization, affect each other.

- **GRI (G3)’s definition stresses ‘stakeholders’ as the key word**

  “The information in a report should cover topics and indicators that reflect the organization’s significant economic, environmental, and social impacts or that would substantively influence the assessments and decisions of stakeholders”. (GRI G3 version)

  Furthermore, GRI (G3) explains, “Reporting on material topics may involve disclosing information used by external stakeholders that differs from the information used internally for day-to-day management purposes. However, such information does indeed belong in a report, where it can inform assessments or decision-making by stakeholders, or support engagement with stakeholders that can result in actions that would significantly influence performance or address
key topics of stakeholder concern.”

- **AccountAbility (AA1000)**

  It defines materiality based on ‘influence to stakeholders’

  “That the Assurance Provider states whether the Reporting Organization has included in the report the information about its sustainability performance required by its stakeholders for them to be able to make informed judgments, decisions and actions.”

- **AccountAbility (2006)’s ‘working definition of materiality’**

  This definition grounds materiality on the significant extent to which an organisation’s performance could change by the material issues. But it also indicates explicitly that such change is from stakeholders’ judgment based on material information.“Material issues are those things that could make a major difference to an organization’s performance” and “material information provides the basis for stakeholders and management to make sound judgments about the things that matter to them, and take actions that influence the organization’s performance.” (AccountAbility 2006, p. 31)

- **Zadek and Merme (2003)’s comparative analysis**

  Zadek and Merme (2003) do not provide a direct definition on materiality, but achieve the meaning of ‘new materiality’ by comparing it with ‘traditional/financial materiality’. They suggest three aspects on differences.

  ✓ **Intention.** Materiality to whom. Zadek and Merme (2003) views materiality as defined by the ‘member interests’ – financial materiality is essentially concerning shareholders; whilst in sustainability context, materiality to whom must encompass a wider range of stakeholders.

  ✓ **Subject.** Financial materiality assumes that only concern of investors is the financial performance of the company. So information is considered material if it can affect financial performance. However, in the context of sustainable development, non-financial information is increasingly taken to be material.

  ✓ **Calibration.** How significant does an issue have to be to fall within the bounds of materiality. In their view, the approach to defining financial materiality does not provide a clear boundary around materiality but depend on judgment of a reasonable person: as in lighting of the statement of US’ SEC, a matter is material ‘if it would have been viewed by the reasonable investor as having significantly altered the total mix of information made available.’ While in the context of sustainability, the extension of intention and subject changes the basis on which
a reasonable person would decide whether an issue is material or not. And therefore, ‘There is need to reassess the basis on which materiality is calibrated, to take into account the wider range of stakeholders, concerns and timeframes which can reasonably be considered to be material.’ (Zadek & Merme 2003)

3 A CRITIQUE

3.1 Limitations of Simple Synonym Approach

Although this approach tends to adopt a direct and simple statement to interpret the meaning of ‘materiality of non-financial information’, the interpretation is incomplete and vague in two aspects:

- It does not confine the scope of those who the material issues are towards; or the scope that it confines is unclear. That is, material to whom is not explicitly expressed.
- Simple synonyms can only provide a relative meaning of the materiality concept. For example, some material issues are unnecessary to be ‘important’, they just affect some persons (e.g., investors)’ judgment. Similarly, not all ‘useful’ data are material. Furthermore, understandings dependent on these synonyms remain in a surface level: those synonyms are also abstractions needing further explanation.

3.2 Limitations of Shareholder-based approach

Shareholder-based materiality definitions, by valuing financial impacts of sustainability issues, are rooted in the economic-core view, which Birkin (2000) calls ‘environmental economics in accounting’, or which Hayward (1994) defines as ‘reformist environmentalism’. This view considers environmental impact as part of the whole that is economic development (see, e.g., Kneese and Russell 1987; Pearce 2002; Stavins 2008). Accountancy foundation of this view has been built in works such as Pearce (2002)’s ‘green economics’, Ditz’s (1995) ‘Green Ledger’, Owen (1992)’s ‘Green Reporting’, and been reflected on sustainability accounting tools such as Life Cycle Assessment (ISO 14040), Total Cost Assessment (Gray 1993), eco-Cost-Benefit Analysis (Gray 1993, 2001), eco-Efficiency (Schaltegger 1992, 1996), and so on. These works, whether in terms of case studies or of new tools conceptualization, value environmental and social issues in monetary terms and in an economic scope.
Gray et al (1995, p. 232) comment: “If accountants in Europe are to enter the environment reporting and accounting field and to do so within the strict confines of conventional accounting then we can expect environment to be similarly constrained. We can then expect a very narrow, tamed, safe and controllable conception of environment to be created by the accountants of the environment.”

In the way of economic-core view, shareholder-based materiality definition may create opportunities for dealing with sustainability issues in a ‘tamed safe and controllable’ way: take social and environmental impacts as part of financial impacts; value them in monetary terms; adopt financial materiality models to calibrate the thresholds of these sustainability issues; and then confine them into our existing financial accounting and reporting frameworks.

However, the economic-core view is problematic and thus criticized. As Birkin (2000) suggests, in the economic-core view, “the ecosystem remains as something to be ‘used’ rather than ‘partnered’ by business”. However, “put bluntly, economics needs an ecosystem; but the ecosystem does not need economics” (Birkin 2000). And in pursuance of economic goals, the economic-core view may override the sensitivity of ecological relationships of business. It is a dangerous situation: for the restraints of ecosystem (including environment and society) on businesses are not recognized, there are no adequate operating limits to resource consumption, growth or expansion (Birkin 2000).

From this viewpoint, existence and development of a business will not only be significantly affected by its financial relationships with investors, but also relationship to the society and environment. In other words, what are material for the business include not only the financial influence, but also social and environmental impacts. Therefore, significant social and environmental impacts are directly material for the business. But shareholder-based materiality, operating in the economic-core view, does not recognize such directness of social and environment impacts. And thus, it potentially ignores or undervalues materiality of some sustainability issues, which are of insignificant financial value.

### 3.3 Limitations in Current State of Stakeholder-based Approach

Stakeholder-based approach have a stakeholder theory root, which indicates the acknowledgement of a phenomenon that any future a business may have depends largely on how it is viewed by its stakeholders, and thus give due regards to the interests of these stakeholders. Business has long controlled the information flow to the customers, employees, and their communities they
operate in and to public at large; widely accepted is the positive link between favorable business image and superior business performance (Schmidt and Pan 1994). For this motivation, materiality here is a tool to achieve acceptance and support of stakeholders that influence the business development, ‘from the concern about corporate image to the strategic and competitive advantages that sustainability reporting provides’ (Daniels 2006). For example, quoted in Context (2006, p.9) is a broad view of risk addressed by Julia King, a Corporate Responsibility manager at GSK: “GSK reports on a wide range of CR issues where the financial materiality isn’t immediately obvious. We do this because any issue that affects our reputation could in the long term undermine our licence to operate, increase our costs and ultimately, affect the long-term financial success of the company. So we pay attention to all stakeholder concerns even when they do not currently impact the business.”

As we can see stakeholder-based approach may provide a more holistic and long-term view in reporting sustainability issues, and potentially lead to a win-win corporation between the reporting organization and the stakeholders. However, current state of stakeholder-based approach is still problematic regarding the unclear and arguable conceptual foundations and lack of the supporting evidence from both theoretical foundations and the practice. As Certified General Accountants Association of Canada (CGA-Canada) (2006) comment on the GRI definition of materiality, “The discussion surrounding the prioritization of issues and indicators on the basis of their materiality also requires further clarification. In reviewing this principle, it is not apparent on how a reporter would prioritize issues. Does prioritization relate to the relative ordering of disclosures in the sustainability report, the amount of coverage dedicated to each disclosure, and/or an explicit ranking of priorities? Does it apply to all preparers using the Guidelines or only to those employing incremental adoption? Is prioritization even necessary provided an organization’s report, within its scope, covers issues and indicators that would substantively influence the decisions of the stakeholders using the report? In our view, more clarification on this issue is required.” (CGA-Canada 2006). Similar view comes from Riahi-Belkaoui (2004): “the content of these definitions looks like a principle rather than an operational definition. And most of them stress the reporting entity’s role in interpreting what is material and what is not.”

Zadek and Merme (2003)’s attractive comparison between ‘traditional materiality’ and ‘new materiality’ provides a way on definition. However the 3 aspects (intention, subject, calibration), which they outline cannot explain the content of sustainability materiality in a decent level.
Particularly they do not provide any evidence of practice or theories that can address how new materiality calibration works, although this work should be the core of applying and understanding materiality in sustainability context. From this viewpoint, Zadek and Merme (2003)’s comparison is also a work of brief principle, rather than a concrete and sufficient definition.

3.4 Three Critical Questions for Future Stakeholder-based Approach

In the current state of foggy, vague and non-operational definitions on materiality of sustainability information, three questions are raised for stakeholder-based definition approach. Answer of these questions may forward our understandings how this old concept should be applied in a new context.

Firstly, who are stakeholders in the scope of materiality? Or in other words, who are not stakeholders?

The first definition of stakeholder comes from a 1963 internal memorandum at the Stanford Research institute, "those groups without whose support the organization would cease to exist." (quoted in Freeman & Reed, 1983). Some businesses reports reflect on this thinking. They take those who can influence significantly the business development as stakeholders. However, it is a narrow view on stakeholders: focus on who impact organizations, while ignore who are impacted by the organization. For example, some families or communities may suffer the air or water pollution from the factory; however, if their voice or power is weak or they recognize little of such suffering for they lack of such knowledge, they will be excluded from who the corporation defines as stakeholders. Even we suggest a broader range of stakeholder to include those ‘weak stakeholders’ who are influenced much from the company. But what is the boundary between stakeholders and non-stakeholders? There will be someone direct affected by the company, someone indirectly affected. In this situation it will be difficult to judge who are stakeholders and who are not.

Secondly, can the report meet the maximum needs of all stakeholders that the corporation recognizes? How?

An essential problem with materiality in sustainability report is that it is only meaningful when related to one specific group of people. Each stakeholder group has its own view of what is material. It is relatively easy to establish what is material to each group, but how do you balance between them? If companies report on every stakeholder grouping’s material issues, this brings us back to the bulky
report. Therefore, before prioritizing sustainability issues, businesses often prioritize stakeholders, as Context (2006) suggests a ‘more focused report’ to prioritize the important stakeholders. That is, in reporting sustainability performance, when there are conflicting interests between stakeholder groups, the company should incline on the more important ones. But this leads to inequality on viewing stakeholders.

Thirdly, for a sustainability issue, what is the materiality threshold, in what aspects it will manifest different from financial threshold?

GRI and other reporting guidelines and prior research papers do not give evidence on this. In financial materiality, there are some materiality threshold models (such as 5% rules) or qualitative factors framework (such as SEC’s). But in the context of sustainability report, there is no exploration or little if any, on modeling the thresholds based on the sustainability reality. Can we judge sustainability materiality on a quantitative ground similar to ‘rules of thumb’ in financial materiality? Can we formulate a framework of qualitative factors in judgment materiality of sustainability issues? The field of sustainability materiality thresholds is unexplored and even unexplained in prior research.

4 CONCLUSION

Undoubtedly, materiality has been, and will remain, a key issue for accounting, under whatever guise. Materiality and its redefinition, both in the context of financial as well as sustainability reporting, are being grappled with in practice (Zedek & Raynard 2004). This paper critically reviews prior definitional works, which are patterned to three approaches. The patterning of these definitions lies in to whom sustainability information are considered material. It critiques simple synonym approach on its implicit and unclear expression on ‘materiality towards whom’, and shareholder-based approach, which recognizes investors as the materiality intention, on its economic-core view limiting the scope in selecting materiality. Compared to the two approaches, stakeholder-based approach provides a more holistic and long-term scope on judging materiality of sustainability information. But current state of this approach is problematic in the vague, foggy and non-operational definition content. This paper proposes three critical questions which the stakeholder-based approach needs to address, and which may put insight on future study on exploring and defining sustainability materiality.
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