

Metrics for Sustainable Business

Measures and Standards for the
Assessment of Organizations

Scott R. Herriott



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METRICS FOR SUSTAINABLE BUSINESS

Metrics for Sustainable Business is the first book to look comprehensively at the various standards for reporting and evaluating the sustainability of organizations. It presents in detail the two programs for disclosure (the GRI reporting guidelines and the SASB accounting standards) and several standards for corporate ratings and rankings, and for organizational certification.

The chapters on accounting for greenhouse gas emissions, water use, and waste introduce the reader to some of the technical details in sustainability accounting, but it is the comparison and contrast of the standards that takes the reader into questions at the frontiers of sustainability reporting. A chapter on the philosophies of sustainability offers a novel answer to the question, “Why are they asking us—or not—to report *that*?” The book examines the meaning of materiality in sustainability accounting and calls on the profession to re-evaluate how small and medium-size enterprises can report on and manage their sustainability effectively yet economically. The author’s examination of the common ESG framework (environment, social, and governance) for sustainability standards reveals that it will not satisfy the current call for an integrated, connected reporting of the triple bottom line of sustainability (people, planet, and profits), and a careful look at the way various standards treat the social category of sustainability reveals questions about the appropriate conceptual framework for reporting the elements of social sustainability.

This book will serve thoughtful students and professionals, who are interested in sustainability and accounting.

Scott R. Herriott is Professor and Dean of the College of Business Administration at Maharishi University of Management, USA. He specializes in the application of quantitative methods to business strategy with a focus on sustainable business. He is the author of a dozen scientific papers and books on economics, organization theory, and business strategy.

“Metrics for Sustainable Business is the first book to provide a comprehensive overview and comparison of the frameworks companies can use for reporting on environmental and social issues. It includes a valuable discussion about the use of indicators to measure sustainability performance and offers technical details on the accounting for greenhouse gas emissions, water, and waste. Herriott’s writing style makes the material accessible and interesting for readers with varying levels of knowledge about sustainability reporting and related metrics. The book is well-written, well-organized and thorough. This is a must read for anyone interested in learning about this exciting and challenging topic. The book should also serve well as a textbook for college-level courses in sustainability reporting.”

Kenton D. Swift, University of Montana, USA

*“This is the sustainability accounting text I need for my classes. *Metrics for Sustainable Business* brings together the set of topics needed by accountants engaged in understanding and reporting sustainability issues for organizations. Scott Herriott’s book will be foundational for my courses and will be a regularly-consulted reference on my bookshelf.”*

Darrell Brown, Portland State University, USA

For Vicki and Nathaniel

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Scott Herriott
Fairfield, Iowa
September 2015

INTRODUCTION

The 21st century is bringing into focus a deeper understanding of the way that business is embedded in society and the natural world. Companies now realize that their owners, the shareholders, are not the sovereign masters of the enterprise. Business leaders now recognize that business relies on forms of natural, human, and social capital, which firms cannot own, as well as on the financial and intellectual capital that firms can own. Relying on natural, human, and social capital, businesses must ensure the preservation of that capital in order to secure their own long-term existence. The focus on the *triple bottom line* of social, environmental, and economic outcomes, or “people, planet, and profit,” is the essential theme of sustainable business.

To manage their operations with an eye to these broader responsibilities, companies need a conceptual framework that can suggest which indicators of sustainability to monitor, and they need procedures to measure, summarize, and report on them.

The largest firms in the world are already experimenting with sustainability reporting. A recent report by KPMG showed that by 2013, 93% of the world's 250 largest companies were publishing reports on their corporate responsibility or sustainability. Among the 100 largest companies in 41 countries surveyed by KPMG in 2013, 4,100 firms in all, sustainability reporting had reached a penetration of 71%, up from 64% just two years earlier. On the question of whether firms should issue sustainability reports, KPMG concluded, “the debate is over.”¹

Reporting on sustainability is just the starting point for triple-bottom-line management. Companies need to know how their management of natural, human, and social capitals—and how their engagement with the various stakeholders who do possess those capitals—adds value to the firm. As Yvo de Boer put it, “The

questions companies should ask themselves now . . . are ‘what should we report on?’ and ‘how should we report it?’ And, most importantly, ‘how can we best use the process of reporting to generate maximum value both for our shareholders and for our other stakeholders?’”²

The relationship between the management of natural, human, and social capitals and value creation is demonstrated only when sustainability reporting is integrated with financial reporting. Such integrated reporting is now promoted by the International Integrated Reporting Council (IIRC), integrated reporting is required in South Africa, and proposals for its requirement have been put forth in Brazil, India, and the European Union (EU).³ The natural extension of integrated reporting is *connected reporting*, promoted by the Accounting for Sustainability (A4S) Project of Prince Charles of England, which explicitly draws out the relationships between the environmental and social impacts of a firm and its future financial performance and risk.⁴

Companies need to know how to form composite metrics that reflect a firm’s performance in the triple bottom line’s environmental, social, and economic categories and in their principal subcategories. Such summative measures permit firms to distill the large volume of information generated by sustainability reports into a manageable set of key performance indicators. To illustrate the potential volume of information, the Global Reporting Initiative’s *G4 Sustainability Reporting Guidelines* is a 94-page standard supported by a 266-page implementation manual. Its comprehensive reporting requirement includes 91 indicators on which firms would report specifically about economic, environmental, and social impacts, requiring a total of more than 300 data points.

Identifying indicators of sustainability, measuring them, and assembling the data for a report is only the starting point for an understanding about how to manage a firm for sustainability. The real challenge is to condense the data, rolling indicator scores up into subcategory and category scores (environmental, social, and economic) and into a summative score on the sustainability of a firm and to use this collection of key performance indicators—generically termed *metrics*—to guide business decisions.

Such an undertaking would be well beyond the scope of this book. The science of sustainability is not even near a point where we would have the conceptual frameworks and measurement systems to make fully connected reporting a reality. As a start, this book reviews what is generally known about the essential steps in the development of metrics: (1) how to identify material indicators of sustainability, (2) how to measure those indicators, and (3) how to form composite metrics that reflect a firm’s performance in the environmental and social categories and their principal subcategories. The review of these topics will yield insights about how the current practices can be improved.

The state of the art in sustainability reporting is to be found in the standards that exist for sustainability disclosure, rating, and certification. This book features

nine such standards. The programs for disclosure are represented in this book by two organizations, the Global Reporting Initiative (GRI), which offers the GRI-G4 reporting guidelines, and the Sustainability Accounting Standards Board (SASB), which publishes a standard for sustainability accounting. These programs for disclosure suggest only what to report, not how to interpret it. The interpretation appears in standards for corporate rating and certification, represented here by the Dow Jones Sustainability Indices, Thompson Reuters' ASSET4 ESG standard, the Financial Times Stock Exchange FTSE4Good metric, and Corporate Knights' Global 100 metric as rating systems and by certifications offered through the Association for the Advancement of Sustainability in Higher Education's STARS metric, Underwriters Laboratories UL 880 standard, and B Labs, Inc.'s B Corporation (benefit corporation) standard.

Chapters 1, 2, and 3 describe these featured standards for disclosure, rating, and certification. They introduce the reader to the vocabulary of sustainability metrics and present the main features of the standards.

Chapters 4 and 5 introduce two conceptual frameworks for understanding the content of standards for sustainability. Chapter 4 is a survey of the ethical perspectives that may account for differences in the operational meaning of "sustainability" across various standards. Chapter 5 is a review of conceptual approaches to the design of systems for measuring and summarizing aspects of sustainability.

Chapters 6, 7, and 8 present the details of measurement and reporting in the three principal subcategories of environmental sustainability (greenhouse gas emissions, water, and waste). Chapter 9 is a discussion of the main components of social sustainability (employees, community, nation-state, and customers and suppliers) as they are represented in the featured standards. Contemporary methods for measuring and summarizing data on greenhouse gases (GHGs), water, and waste are rather well developed, so we do not find controversy there. The social metrics of sustainability are not conceptualized as well, and there is much less standardization of practice in measurement and summation, so Chapter 9 raises many interesting questions for further research.

The book concludes in Chapter 10 with a discussion of issues and questions raised by this examination of the standards for sustainability. We look at whether metrics based on the environmental, social, and governance (ESG) reporting framework truly represent the triple-bottom-line conceptualization of sustainability in environmental, social, and economic categories, which focuses attention on the meaning of governance and "economic." We take a close look at the social category to understand which aspects of sustainability should roll up under it. The final issue is the data-reduction problem, where we consider if and how it would be possible to formulate metrics for sustainability that are not as data intensive as most of the standards featured here. That question will become very important as small and medium-sized enterprises grow in their desire to monitor and manage their sustainability and to publish sustainability reports.

Notes

- 1 KPMG. 2013. *The KPMG Survey of Corporate Responsibility Reporting 2013*. KPMG International. Available at <www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/corporate-responsibility/Documents/corporate-responsibility-reporting-survey-2013-exec-summary.pdf> Accessed August 2015.
- 2 De Boer, Y. 2013. Corporate Responsibility Reporting: Is It Really Worth It? *The KPMG Survey of Corporate Responsibility Reporting 2013*. Available at <www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/corporate-responsibility/Documents/corporate-responsibility-reporting-survey-2013-exec-summary.pdf> Accessed August 2015.
- 3 Eccles, R., and M. P. Krzus. 2015. *The Integrated Reporting Movement*. Hoboken, NJ: Wiley.
- 4 Hopwood, A., J. Unerman, and J. Fries, eds. 2010. *Accounting for Sustainability*. London: Earthscan.

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1

SYSTEMS FOR DISCLOSURE

In this chapter, we will look in depth at two programs for reporting on sustainability, the “guidelines” of the Global Reporting Initiative and the “standard” published by the Sustainability Accounting Standards Board. We refer to guidelines and standards generically as *systems* or *programs*.

Guidelines and standards have some features in common but also an important difference. At their basis, both guidelines and standards for disclosure identify the variables, called *indicators*, which users of the program may find relevant to an evaluation of sustainability, and they prescribe the procedures for measuring and reporting those indicators. In that way, both guidelines and standards promote consistency in reporting, which permits users to make comparisons within a firm over time and across firms.

Around that basic function, programs for disclosure also convey principles by which reporters should decide which items of information are useful to an evaluation of sustainability and which are not. Borrowing a term from financial accounting, we say that the useful disclosures are *material* to the users and that these principles characterize the *materiality* of the indicators.

Guidelines and standards differ in that standards are designed to be auditable, but guidelines are not. As an example, the ISO 14001:2004 *Environmental Management Systems—Requirements with guidance for use* is a standard against which a firm can be audited and certified, but the ISO 26000:2010 *Guidance on Social Responsibility* is not a program for certification. The Sustainability Accounting Standards Board encourages its users to have their SASB Standard Disclosures audited the using the American Institute of Certified Public Accountants’ *Statements on Standards for Attestation Engagements*, which are also used by the Public Company Accounting Oversight Board as an interim standard for attestation engagements with publicly

2 Systems for Disclosure

traded companies. As a point of comparison, the Global Reporting Initiative's G4 *Sustainability Reporting Guidelines* is not designed to be auditable, but it offers sufficient detail in its presentation of principles for disclosure and requirements for reporting individual indicators of sustainability that the GRI guidelines recommend that organizations have their reports externally assured in whole or in part, meaning assured by a third party such as an accounting firm.

Programs for disclosure address the fundamental question of what should be reported and how. The standards for sustainability, to be discussed in Chapters 2 and 3, begin with the “what” and “how” of individual indicators and then consolidate that information into subcategory scores, category scores (environmental, social, and economic), and finally summative metrics for the overall sustainability of an organization, which we will discuss in Chapter 5. Thus, the study of standards for disclosure is a good starting point for understanding metrics for sustainable business.

We begin this chapter with a discussion of the concept of materiality. We continue with an examination of programs for disclosure that have been developed by two organizations, the Global Reporting Initiative and the Sustainability Accounting Standards Board. There are many standards for disclosure, most of which have been mandated by government for specific purposes.¹ Our focus in this book is on guidance and standards for the voluntary disclosure of information related to the full scope of sustainability issues—environmental, social, and economic. Notable among these, but not discussed in detail here, is the standard for the disclosure of information related to corporate social responsibility of the Chinese Academy of Social Sciences since 2009 as *Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises*, published in its third edition in 2014 as CASS-CSR3.0. We will use the GRI as our primary example of voluntary disclosure, but persons interested in CASS-CSR may find a crosswalk of the CASS-CSR3.0 onto the GRI at the GRI website.²

The Concept of Materiality

Materiality is the central concept in the analysis of metrics for sustainable business, but its application to sustainability is more complex than its use in accounting. To the Financial Accounting Standards Board (FASB), which governs the practice of financial accounting for nongovernmental organizations in the United States, a fact is material if its omission makes it “probable that the judgment of a *reasonable person* [emphasis added] relying on the [fact] would have been changed or influenced by the inclusion or correction of the item.”³ Facts are material to *users of information*, not to the reporting firm. The user, the person relying on that information, might be taken to be an existing or prospective owner of the shares or debt of the firm, a transactional party (buyer from or seller to) the firm, or a governmental regulator of the firm. In the context of accounting, any of these parties may be interested in the current and future financial status of the reporter, so the information is judged as material to *financial* decisions. The definition of materiality taken from U.S. securities laws

and case law is more specific about who the “person” is: information is material if there is “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the *reasonable investor* [emphasis added] as having significantly altered the ‘total mix’ of the information made available.”⁴

In contrast, sustainable business is characterized by an attention to the stakeholders of a firm, not merely to its shareholders. Stakeholders include individuals or companies that have an interest in the firm, where “interest” is not meant only in the financial sense but more broadly as having a relationship to the firm. Yet more broadly, even the natural environment is viewed as a stakeholder. The environment may have a direct impact on organizations, but it is also represented in the social domain by citizens and organizations that have a concern about the effect of business on the environment.

As we consider materiality in the sustainability arena, the user of information may be any stakeholder who has any type of relationship to or interest in the firm. This takes the concept of materiality well beyond its original domain in financial accounting, where the “judgments” in the FASB definition focus in practice on the value of the firm (for investors), its financial stability (for creditors), or the firm’s compliance with laws and regulation (for the government). The extension of materiality into accounting for sustainability extends the domain of the interests that persons may have in the business. However, sustainability as a concept is not so well defined that it will always be clear what interests are relevant and what judgments about a firm should reasonably support those interests.

Indeed, in the sustainability domain, materiality may be defined not merely in terms of judgments but by interested parties having *expectations* about the firm. In the Global Reporting Initiative’s G4 guidelines on disclosure, which we will examine in detail in this chapter, item G4-2 states that a firm must report on its key impacts, risks, and opportunities. As part of that, reporters are instructed to discuss their

... effects on stakeholders, including rights as defined by national laws and relevant internationally recognized standards. This should take into account the range of reasonable *expectations* and interests of the organization’s stakeholders.⁵

(*Emphasis added.*)

That is a qualitative extension of the definition of materiality from the context of financial accounting, because parties may have expectations without having the legal or even ethical grounds for enforcing those expectations. If “reasonable” is meant to mean legal or ethical, then the scope of those interests is constrained somewhat, but as we shall see in Chapter 4, there are many ethical perspectives that may be taken on questions that pertain to sustainability.

As materiality is defined by the FASB (and, as we shall see below, the SASB), the concept pertains to *facts*. Only facts can be material. In the broader use to which