EDITORIAL

What Is Corporate Sustainability and How Do Firms Practice It? A Management Accounting Research Perspective

INTRODUCTION

To ensure long-term financial success, businesses need to recognize that they are operating within a larger biophysical and social environment, and respect the limits and processes governing the sustainability of the larger ecosystem as the global economy expands rapidly toward the carrying capacity of the planet. Consequently, firms, especially the large multinational corporations, are being challenged to behave in an environmentally sustainable and socially responsive manner while maintaining and improving shareholder value. Stakeholders are soliciting information on the environmental and social impacts of business operations as well as on measures to benchmark corporate social and environmental performance in different industrial contexts, while investors demand disclosure of material environmental risks and related compliance costs and liabilities. Firm managers continually seek information to improve the triple bottom line performance and to make informed trade-offs among often-conflicting financial, environmental, and social objectives. As a result, the accounting profession is being called upon to expand its traditional role to incorporate environmental and social performance into the financial reporting and management control systems.

Given the broad and growing interest in corporate sustainability management, the Journal of Management Accounting Research (JMAR) and the American Accounting Association organized a panel discussion at the 2014 Management Accounting Section Research and Case Conference to review and discuss the developments in corporate sustainability and management accounting practice. The comments delivered at the panel provided the impetus for this special issue of JMAR. An article summarizing the panel comments is included in this issue along with six other articles exploring the practice and related research issues of corporate sustainability and management accounting.

Research in the area of corporate sustainability and management accounting practice covers a broad territory. Early research in environmental accounting focused on the disclosure and valuation relevance of corporate environmental performance. A large body of accounting research shows that corporate disclosure of environmental information is likely to be strategic, consistent with either voluntary disclosure theory or the legitimacy theory (Li, Richardson, and Thornton 1997; Barth, McNichols, and Wilson 1997; Wiseman 1982; Patten 1992, 2002; Cho and Patten 2007; Cho, Guidry, Hageman, and Patten 2012; Neu, Pedwell, and Warsame 1998; Clarkson, Li, Richardson, and Vasvari 2008; Clarkson, Fang, Li, and Richardson 2013). In addition, many studies provide empirical evidence that corporate environmental performance information in various industrial settings is valuation relevant (Barth and McNichols 1994; Cormier and Magnan 1997; Hughes 2000; Johnson, Sefcik, and Soderstrom 2008; Li and McConomy 1999; Clarkson, Li, Pinnuck, and Richardson 2015; Clarkson, Li, and Richardson 2004; Matsumura, Prakash, and Vera-Muñoz 2014; Schneider 2011). Similarly, there is ample empirical evidence that variation in corporate environmental performance affects the behavior of a wide range of capital market participants, including creditors, shareholders, analysts, and managers. However, there is relatively little empirical research on what motivates corporations to pursue different sustainability strategies, and how managers implement effective management control systems to achieve sustainability. This special issue of JMAR attempts to fill this void in the accounting literature and focuses on the managerial aspects of corporate sustainability practice and the research issues that relate to the implementation of sustainability at the firm level. We present some of the key questions in sustainability accounting that need addressing together with a summary description of how the articles in this issue attempt to analyze these research questions in a novel way and contribute to the extant literature.
WHAT IS SUSTAINABILITY AS IT RELATES TO BUSINESS?

Sustainability and sustainable development are clichéd terms widely employed in the business press but seldom defined unequivocally. The most commonly accepted definition of sustainable development is attributed to the Brundtland Commission. Dyllick and Hockerts (2002) draw on the Brundtland Commission and define corporate sustainability as “meeting the needs of a corporation’s current direct and indirect stakeholders without compromising its ability to meet the needs of future stakeholders as well.” Along similar lines, Schaltegger, Burritt, and Petersen (2003) define corporate sustainability management as a business approach that is designed to shape the environmental, social, and economic effects of a company in such a way that, first, results in the sustainable development of the company and, second, provides an important contribution toward the sustainable development of the economy and society.

The debate as to whether firms have social responsibility beyond shareholder wealth maximization has a long history, starting with Bowen (1953) who referred to the obligations of businessmen to pursue policies, decisions, and lines of action that are desirable in terms of the objectives and values of society. Friedman (1970), on the other hand, argued that corporations as legal persons do not have feelings and ethics. Corporations only have “artificial responsibilities” that can be defined explicitly by law or regulations and the only social responsibility of business is to maximize shareholder wealth. Others have argued that such dichotomy is moot since corporate social responsibility (CSR) is consistent with long-term shareholder value maximization; e.g., Davis (1960) who asserted that “socially responsible business decisions can be justified by long, complicated processes of reasoning as having a good chance of bringing long-run gain to the firm, thus paying back for its socially responsible outlook.” Since then a number of mechanisms through which sustainability efforts can add to firm value have been proposed, including better operational efficiency and cost reduction, reduced regulatory enforcement, increasing rival’s costs, improved environmental risk and compliance cost management via emission reductions, superior social risk management through stakeholder engagement and legitimacy, preferential access to scarce resources, product differentiation and access to environmentally conscious markets, lower cost of capital and labor due to improved reputation, shared value creation and lower input supply disruptions due to improved sustainability and resilience of sources, and sustained innovation and growth by addressing big societal issues (Hart 2005; Esty and Winston 2009; Porter 1991; Porter and Kramer 2006, 2011; Orlitzky 2008; Dhaliwal, Li, Tsang, and Yang 2011). At the same time, contrary arguments persist that CSR activities will adversely affect firm financial performance because (1) sustainability considerations represent additional constraints on production technology forcing firms toward suboptimal choices, (2) CSR goals divert managerial attention and drain resources from productivity-enhancing activities and investments, (3) CSR activities represent unproductive ceremonial institutional practices, (4) managers engage in CSR activities to further their personal agenda and reputation at the cost of investors, and (5) CSR activities are corporate charity at the cost of shareholders (Jaffe, Peterson, Portney, and Stavins 1995; Cheung and Roca 2013; Lys, Naughton, and Wang 2015). As a result, controversy still remains in the literature as to whether improved CSR performance creates shareholder value; moreover, if CSR does enhance value creation, then why is it not practiced uniformly by all firms (Clarkson, Li, Richardson, and Vasvari 2011; Orlitzky 2013; Lys et al. 2015)?

The panel discussion article by Hales, Matsumura, Moser, and Payne (2016; in this issue) jumps into the debate by exploring the implications of alternative viewpoints on corporate CSR investment decisions and related accounting practice. First, if the goal of all investments is to maximize owners’ wealth, then rational managers would presumably analyze CSR investments in the same way that they analyze other investments. Any benefits to society from CSR investments are simply byproducts of actions designed to accomplish this goal. Consequently, traditional measures such as earnings and stock returns would also enable the assessment of CSR performance. Environmental and social factors that impact shareholder wealth maximization have to be managed in the same way as traditional economic factors that affect businesses’ financial performance. Under this view, managers are obligated to disclose only those aspects of environmental and social performance that are material to investors. A second view is that company managers should, and do, make CSR investments that benefit society even at a sacrifice of company profits. The investors/owners may encourage such spending if the owners value the societal benefits of the CSR investment more than the potential negative effect on their wealth. In other words, owners derive utility from economic as well as the environmental/social value created by the business, and managers as agents of the owners attempt to maximize the utility of owners. Because environmental and social performance of the firm affects owner’s utility, managers are obligated to comprehensively measure and disclose environmental and social performance along with financial information to the investors. Such disclosures allow investors to invest in companies that maximize their utility. Firms can use the triple bottom line performance mix as a differentiation strategy to attract investors who value social and environmental performance. Evidence of the importance of this view is provided by the massive growth in sustainable, responsible, and impact investing (SRI). The total U.S.-domiciled assets under management using SRI strategies expanded from less than $0.3 trillion in 1995 to $6.57 trillion at the start of 2014, representing more than $1 out of every $6 under professional management (US SIF Foundation 2015). A third view draws on the stakeholder theory. That is, businesses exist in a social setting and inevitably draw on critical resources, such as environmental capital (e.g., soil fertility, forests, fisheries, and water resources) and social
WHAT IS SUSTAINABILITY ACCOUNTING?

Regardless of which of the above viewpoints dominates in management practice, all of them impose on businesses a responsibility to measure, disclose, and manage at least some aspects of environmental and social performance along with traditional financial performance. The choice of sustainability performance targets and trade-offs among dimensions of such performance and disclosures may, however, vary among firms depending on their motives, mission, core values, chosen business strategies, and external stakeholder/institutional pressures and regulations. To practice sustainability, companies need to implement an accounting system to generate and organize information to enable external sustainability reporting, to facilitate management control, and to influence internal decision making.

External reporting of sustainability performance can either be mandatory, governed by laws and regulations, or voluntary, driven by soft institutional pressures or differentiation strategies. For example, Staff Accounting Bulletin 92 of the SEC provides detailed accounting and disclosure standards for reporting material effects of compliance with environmental regulations and recognition of environmental liabilities in the regulatory filings. Similarly, periodic reporting of hazardous pollutant emissions, hazardous waste generation and disposal, greenhouse gas emissions, worker safety violations and accidents, environmental impact analyses, etc. are mandated under various environmental and occupational health and safety regulations. While such regulations have a long history, a few countries (e.g., Finland) have passed laws mandating sustainability reporting. All large public companies in Europe are required to report certain Environmental, Social, and Governance (ESG) information beginning in 2017 according to a European Commission Directive (2014/95) enacted on October 22, 2014.

A number of organizations are developing sustainability reporting standards for firms with the goal of making external sustainability reports accurate, consistent, reliable, and comparable across time and across firms. The article by Hales et al. (2016) compares and contrasts the key features of the reporting models of four major players in this arena; namely, Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), the Sustainability Accounting Standards Board (SASB), and the Carbon Disclosure Project (CDP). The proposed reporting standards and models differ in terms of target stakeholder groups, definition of materiality, data collection, and aggregation agency, scope of performance metrics, and report generation models. For example, the intended target user group under SASB standards is primarily equity and debt investors and, correspondingly, materiality is defined most restrictively with minimum disclosure of nonfinancial information. In comparison, the intended users under GRI cover a broader set of stakeholders, and materiality is defined broadly to reflect the priorities of different stakeholder groups. Materiality in IIRC focuses on the organization’s ability to create value in the short, medium, and long run, drawing on the six capitals, namely financial, manufactured, intellectual, social, human, and the natural capital. Under GRI, the reporting entity separately produces financial reports using FASB/IASB standards and a CSR report using GRI standards; but in the SASB model, the reporting entity produces one enhanced 10-K report using both FASB/IASB and SASB standards; while under the IIRC model, both financial and CSR reports are combined into a single integrated report. Since these standards are currently evolving, competing, and converging in some aspects, the analysis by Hales et al. (2016) provides useful insights and synthesis of developments in external reporting standards for corporate sustainability performance.

While the standards being developed by GRI, IIRC, SASB, etc., attempt to define and standardize the sustainability performance metrics (often industry specific) for external reporting, businesses have to develop internal management and control processes to achieve these performance metric targets. One source of guidance in setting up internal environmental management systems (EMS) is the ISO 14000 series of EMS guidance documents and standards produced by the International Standards Organization (ISO). The ISO 14000 standards embody a road map (Plan, Do, Check and Act cycle) aimed at continual improvement, with detailed guidance on implementation. Organizations can set up EMS and become certified as ISO 14000 compliant. Subsequently, the ISO has expanded the scope to sustainability management systems (SMS) in its ISO 26000 series of standards, which are guidance documents only and not yet certifiable. It is important to note that ISO series are only process standards that define requirements for an organization’s management system and processes, but do not define/proscribe any specific performance criteria except for the commitments to legal compliance and continual improvement.

To practice sustainability management, firms choose the sustainability performance targets that are material to and consistent with the mission and core business strategy, and that are relevant to the external stakeholders. An effective sustainability management control system needs to be designed appropriately to be synergistic with traditional management
systems. Moreover, managing ever-growing environmental compliance and sustainability-related costs is critical. For example, case studies show that environmental regulatory costs account for as much as 15–20 percent of total product costs (Ditz, Ranganathan, and Banks 1995). Environmental cost information can influence key business decisions such as product costing and pricing, product mix, regulatory negotiations, risk management, product design and differentiation, labeling, and tax planning (Joshi and Krishnan 2010). As mentioned above, practicing sustainability also creates opportunities for new product markets, business model innovations, and value creation through supply chain management. Thus sustainability management essentially becomes an integral part of the overall business strategy. Translating the chosen sustainability strategy into specific information needs, key performance indicators, and decision making criteria may necessitate tools such as the sustainability balanced scorecard and strategy maps (Kaplan and Norton 1992; Figge, Hahn, Schaltegger, and Wagner 2002; Möller and Schaltegger 2005), eco-control (Henri and Journeault 2010; Schaltegger and Sturm 1995), or sustainability management control (Burritt and Schaltegger 2010).

In summary, sustainability accounting as depicted in Figure 1, is an interlocking, mutually reinforcing sustainability-related information system encompassing external reporting, internal decision-making support, and management control systems that are consistent with the overall business strategy.

**WHAT IS THE VALUE RELEVANCE OF CORPORATE SUSTAINABILITY PERFORMANCE?**

Given the general intuition that sustainability performance can influence financial performance, disclosure that allows market participants to assess the firm’s sustainability performance can have real economic consequences for the firm and its stock price. Prior studies have analyzed stock market reactions to sustainability-related events such as environmental awards, public release of toxic release inventory data, and inclusion/exclusion from sustainability indices (Hamilton 1995; Khanna, Quinio, and Bojilova 1998; Khanna and Damon 1999; Oberndorfer, Schmidt, Wagner, and Ziegler 2013; Cheung and Roca 2013; Lackmann, Ernstberger, and Stich 2012; Cheung 2011; Robinson, Klefner, and Bertels 2011; Consolandi, Jaiswal-Dale, Poggiani, and Vercelli 2008). Several studies suggest that disclosures of environmental liability information is informative to investors (Griffin and Sun 2013; Barth and McNichols 1994; Hughes 2000; Cormier and Magnan 1997; Johnson et al. 2008; Li and McEconomy 1999; Clarkson et al. 2004; Matsumura et al. 2014; Schneider 2011), and that corporations disclose environmental performance information strategically, consistent with either voluntary disclosure theory or the legitimacy theory (Li et al. 1997; Barth et al. 1997; Wiseman 1982; Patten 1992, 2002; Cho and Patten 2007; Cho et al. 2012; Neu et al. 1998).

Nonetheless, controversy remains in the literature as to whether corporate CSR performance increases future financial performance (Clarkson et al. 2011; Lys et al. 2015). A large number of prior studies have empirically examined the relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP). In their review of 82 studies, Allouche and Laroche (2005) find that 75 studies report a positive effect of CSP on CFP, but only 50 percent of these were statistically significant. Similarly, Margolis, Elenbein, and Walsh (2009) in their analyses of 251 prior CSP/CFP studies observe that 59 percent of studies reported a nonsignificant relationship, 28 percent a positive relationship, and 2 percent a negative relationship between CSP and CFP. A comprehensive review and synthesis of this literature is provided by Orlitzky (2008). Some also argue that corporate CSR activities simply add noise and volatility to capital markets (Orlitzky 2013). Lys et
al. (2015) posit and find empirical support that the direction of causality between CSP and CFP is reversed in that CSR expenditures are signals of private information about better future performance. This literature remains inconclusive.

A. Jain, P. Jain, and Rezaee (2016; in this issue) take a slightly different approach and examine whether short sellers, as informed investors, consider CSR performance, specifically ESG disclosures, when making investment decisions. They find a negative association between ESG scores and short selling, indicating that short sellers avoid firms with high ESG scores and tend to target firms with low ESG scores. They also find that low composite ESG scores are associated with low financial performance in terms of share price, return on equity, ROI, and operating risk. Their analysis contributes to extant literature by focusing on the reactions to sustainability performance of a specific set of sophisticated investors, namely short sellers.

**HOW DOES THE QUALITY OF CONVENTIONAL FINANCIAL DISCLOSURES AFFECT THE USE OF SUSTAINABILITY PERFORMANCE INFORMATION?**

A major concern about corporate CSR disclosure is its quality and reliability relative to conventional financial reporting, primarily because of its voluntariness and lack of generally accepted disclosure and certification standards. While the CSR reporting standards being developed by organizations like GRI, IIRC, and SASB aim to alleviate these concerns, studies show that corporate disclosures of social, ethical, and environmental information do not seem to meet investors’ needs (J. Solomon and A. Solomon 2006; Canadian Financial Executives Research Foundation [CFERF] 2009; PwC 2014). Other studies show that, to enhance the credibility in corporate sustainability reports, firms may voluntarily employ independent third parties to certify their CSR or sustainability reports (Simnett, Vanstraelen, and Chua 2009; Perego and Kolk 2012).

The article by Chen, Srinidhi, Tsang, and Wu (2016; in this issue) examines whether the quality of conventional financial disclosure, proxied by audit fees, influences the perceived quality and credibility of CSR disclosures. They build on the finding by Ball, Jayaraman, and Shivakumar (2012) that independent verification of financial outcomes has a spillover effect that increases the credibility of voluntary disclosure of private information, and they empirically test whether such a spillover effect is also applicable to voluntary CSR disclosures. Their analyses use a sample of 12,429 firm-year observations consisting of 731 voluntarily issued standalone CSR reports. Results indicate that firms committing higher audit fees are more likely to issue a standalone CSR report, and this positive association is stronger when CSR reports are longer and when firms have more CSR-related concerns. Further analysis shows that CSR reports issued by firms with higher audit fees accelerate the incorporation of future earnings information into the current stock price. That is, CSR reports issued by firms committing to higher financial reporting quality provide more effective and credible signals to investors about firms’ future performance.

**WHAT FACTORS DRIVE THE ADOPTION OF SUSTAINABILITY ACCOUNTING PRACTICES?**

Studies of sustainability disclosures and firm valuation generally draw on the neoclassical economic and finance theory. However, institutional theory offers a popular alternative framework to analyze organizational responses to external pressures and how such external pressures motivate organizations to change and adopt new management practices such as sustainability accounting. Institutional theorists posit that external social institutions constrain firm behavior by defining legal, moral, and cultural boundaries, thus differentiating the legitimate from the illegitimate. These restraints can be regulative (coerced through rules, laws, and sanctions), normative (prescriptively imposed through codes of conduct, accreditation, or certification), or cultural-cognitive (mimetic common beliefs, customs, and logic of action) (Scott 2001). Firms conform to institutional pressures by incorporating structural elements that are legitimized externally, and conforming organizations are rewarded through increased legitimacy, social stability, reduced uncertainty, extra resources, and survival capabilities (Meyer and Rowan 1977; North 1990; Scott 2001). Institutional theorists also recognize that institutional expectations do not apply uniformly to all organizations, and firms can respond differentially to these isomorphic pressures by adopting structural elements selectively or ceremonially by decoupling from operational decision making (Meyer and Rowan 1977).

Bhimani, Silvola, and Sivabalan (2016; in this issue) study the motivations of early and late adopters of voluntary corporate social responsibility reporting practices, drawing on 12 in-depth interviews and a survey of 80 respondents from the largest 500 Finnish companies. In contrast to the neo-institutional logic that early adopters are more authentic innovators, while late adopters are driven by mimetic and normative pressures, the authors hypothesize that early CSR reporters are driven by competitive advantage through a differentiation strategy. As a result, the early adopters exhibit higher levels of CSR embeddedness compared to the late adopters of CSR reporting who are imitators that adopt CSR practices ceremonially without embedding CSR in the core control systems. Surprisingly, some firms in their sample that were primarily involved in sustainability-related activities chose not to be early CSR reporters as expected, indicating that their strategic focus on sustainability lessened the need to signal their sustainability ethos through CSR reports. These findings contribute to institutional theory by providing more nuanced insights into factors driving temporal variations in the adoption decisions. The study also raises the question of potential complementary or substitution effects of mechanisms other than disclosure through CSR reports as structural signals to stakeholders.
Herremans and Nazari (2016; in this issue) investigate how seemingly similar external pressures elicit diverse internal sustainability reporting systems and processes due to different institutional logics and stakeholder relationships. Using a sample of Canadian oil and gas companies facing the similar institutional pressure to improve transparency about their environmental and social performance, the study investigates how managerial motivation and stakeholder relationships influence the type of control systems the sample firms used for sustainability reporting. Drawing on the interviews of 11 companies and 13 industry stakeholders, they find that the rigor and characteristics of sustainability reporting depend on the managerial motivations and attitudes within companies. This is because companies respond to external pressures through different types of stakeholder relationships. Specifically, the study reveals that when managers are primarily motivated by mandatory requirements to develop stakeholder relationship and sustainability reporting, the control systems are not well developed. The formal responsibility for sustainability reporting in this case resided in one or a few persons or was even outsourced. On the other hand, when managers believe that there is value in preparing individual sustainability reports, they engage in organic learning and benchmarking with industry peers to design sustainability reporting systems that use both formal and informal control mechanisms. When managers are cognitively motivated to do the right things, they work closely with the stakeholders in joint decision making, and in developing performance measures and control systems closely linked to stakeholders’ expectations. The study contributes to the literature by considering the joint effect of external pressure, managerial motivations, and stakeholder relationships on the design of the control systems for sustainability reporting.

HOW DO FIRMS INTEGRATE SUSTAINABILITY MANAGEMENT CONTROL SYSTEMS WITH TRADITIONAL MANAGEMENT CONTROL SYSTEMS?

Ditillo and Lisi (2016; in this issue) investigate how the integration of Sustainability Control Systems (SCSs) with the more traditional Management Control Systems (MCS) is affected by managerial sustainability orientation (proactive versus reactive). The underlying premise of the study is that, for firms to implement a sustainability strategy successfully, their SCSs must be fully integrated with other MCSs so that organizational decision making is based on the broadest possible set of financial, ecological, and social data. The study posits that the sustainability orientation of managers represents the condition that motivates organizational actors to fully integrate SCSs with traditional MCSs. Applying a field-study methodology to four Italian firms in different industries, the study finds that the nature of companies’ sustainability orientation affects the degree and mode of the integration between SCSs and traditional MCSs. Specifically, the two proactively oriented companies deeply integrated their SCSs with their conventional MCSs across a variety of control mechanisms, including strategic planning, internal reporting and rewarding systems, and various operating systems, while such is not the case for the two reactive companies. In addition, the evidence also supports the view that other factors also facilitate the integration process, including organizational arrangement, stakeholder engagement, availability of financial and personnel resources, and existence of commonly accepted key sustainability performance indicators. The study contributes to the literature by shedding light on the complexity of the integration process when implementing a sustainability strategy.

HOW DOES THE DESIGN OF SUSTAINABILITY MANAGEMENT CONTROL SYSTEMS CONTRIBUTE TO CORPORATE PERFORMANCE?

Journeault (2016; in this issue) takes a closer look at how specific features of sustainability management and control systems affect corporate financial performance. Anecdotal evidence posits that environmental responsibility improves operational efficiency and therefore “it pays to be green.” However, if that is the case, then it is not clear why “being green” is not an equilibrium strategy pursued by all firms. The resource-based view (RBV) of firms argues that not every company can benefit from a “green” strategy; rather, only firms with unique resources and management capability can realize the financial benefits from eco-efficiency improvements. These firm-specific resources and capabilities cannot be easily imitated or transferred. Drawing on the natural resource-based view, the author hypothesizes that the combination of sustainability management practices (eco-control package) helps the development of environmental capabilities, which, in turn, contribute to an organization’s environmental and economic performance. The study decomposes the eco-control package into five categories—cultural, planning, cybernetic, reward, and administrative controls—and identifies specific practices under these categories. Analysis based on the survey data from 249 Canadian manufacturing companies suggests that the eco-control package fosters capabilities in eco-learning, continuous environmental innovation, stakeholder integration, and shared environmental vision. These capabilities, in turn, contribute directly to the firm’s environmental performance and indirectly to economic performance. Results also indicate that different eco-control practices support different environmental capabilities. Therefore, simultaneous use of several eco-control practices may be necessary to support development of comprehensive environmental capabilities. The study contributes broadly to the resource-based view literature by characterizing specific mechanisms under which firms obtain environmental capabilities.
IS SUSTAINABILITY ACCOUNTING SUSTAINABLE? CONCLUSIONS AND FUTURE DIRECTIONS

The articles in this special issue of JMAR represent only the beginnings of a process to understand various dimensions of sustainability management and accounting practices, factors influencing firm adoption of sustainability strategy, and the impact of sustainability management on firm performance and valuation. Inevitably, an emerging field such as sustainability accounting has more open questions than answers, and offers many avenues for potential future research employing multiple theories and methods. The article by Hales et al. (2016) points to some research opportunities using archival and experimental methods discussed by the presenters at the sustainability panel.

Some critical theorists have raised more fundamental concerns about the sustainability of sustainability accounting itself, i.e., whether sustainability accounting is just a “passing fad” (Burritt and Schaltegger 2010). The demand for sustainability reporting and accounting arose primarily from increasing societal concerns about the sustainability of the human economic system as its rapid growth began to test the biophysical limits of the planetary ecosystems. It is questionable if firms’ accounting systems will ever be able to address these broader system sustainability concerns, because of the primacy of the entity concept in accounting. Biophysical sustainability is an outcome of aggregate and complex effects of actions of many firms and agents, resulting in physical and material interactions with ecosystem processes and carrying capacities. Characterizing and assessing these sustainability effects are beyond the information generation capabilities of firms’ financial accounting systems that are limited by the entity concept and that focus on monetary transactions. Others question whether sustainability accounting can even address the issue of sustainability of the firm as an entity, because clearly defining what a sustainable firm looks like itself is not possible. Therefore, chasing corporate sustainability is an inherently flawed exercise (Aras and Crowther 2009; Gray and Milne 2002; Burritt and Schaltegger 2010). On the other hand, accountants appear to be comfortable with the concept of a going concern, which is similar to the concept of a sustainable organization. Also to the extent that an effective environmental target can be set for assuring eco-system sustainability (e.g., total allowable carbon emissions into the atmosphere that limit global warming to an acceptable degree, or total allowable nutrient loads that a waterbody can sustain), environmental accounting at a firm level can still provide useful information for managerial decision making and for assessing a firm’s contribution and eco-efficiency relative to industry peers.

While the debate about the usefulness and capability of corporate accounting systems to optimally address sustainability will continue, the reality is that external pressures for corporations to address and at least to facilitate directionally sustainable decision making are likely to persist and indeed increase over time. Stakeholders will increasingly seek information on the environmental and social impacts of business operations. Businesses must demonstrate efforts to incorporate externality effects in decision making as a prerequisite for obtaining legitimacy and license to operate. Also given the growing resource scarcity, environmental risks, market differentiation, and emerging business opportunities, it will be in the strategic interest of businesses to monitor and manage environmental and social issues actively, and ceremonial adoption of CSR may not be adequate. Sustainability accounting systems will be needed to meet the information needs of external stakeholders and, more importantly, to facilitate strategically material internal decisions by managers. Providing such decision-relevant information in a timely manner for a variety of operational and strategic decisions is likely to be a major focus of future sustainability accounting systems.

Development of such instrumental sustainability accounting systems will require the accounting profession to step outside its comfort zone and measure and manage external environmental and social impacts. Extending the boundary of analysis beyond the “entity” has implications for both accounting and management control system design. As Hales et al. (2016) discuss, theoretical analysis of the more complex principal agent problem, where the principal’s utility function includes broader environmental and social objectives, will need to continue. Similarly, CSR-related investment decisions would need an estimation of external social and environmental benefits, which may not at all be captured by accounting systems, or may be captured through complex, delayed, and uncertain pathways, raising difficulties in tracking and matching. For example, estimating the firm-specific global warming and health risk reduction benefits achieved by investments in pollution reduction technologies is likely to be very challenging. Yet firms will continue to make these public good investments, due to regulatory and normative pressures. Decision makers and accounting systems may have to draw on the vast economics literature on valuation of non-market goods and ecosystem services in making these benefit estimates and to justify investments (Haab 2002). Useful insights for firm sustainability accounting may also come from the growing literature on Green GDP and Integrated Economic and Environmental Satellite Accounts that aim to address the limitations of GDP as a welfare measure, especially its failure to account for depreciation and changes in stocks of natural and social capital in national income and product accounting (Ahmad and Lutz 1989; Carson 1994; Darmstadter 2006). Such nonmarket valuation information will be required on a regular basis to make informed trade-offs among financial, social, and environmental objectives. Research efforts will be needed to facilitate verification, standardization, and incorporation of nonmarket valuation information into firms’ accounting systems.

Journal of Management Accounting Research
Volume 28, Number 2, 2016
Along similar lines, extended producer responsibility (EPR) regulations and voluntary initiatives require firms to take responsibility for products and packaging materials at the end of their useful lives, possibly long after the initial sales. This raises interesting accounting questions about revenue and cost recognition and the matching concept. Product life cycle analyses mandated under several regulations and labeling requirements would require firms to quantify resource use and wastes through the entire life cycle of a product covering the input supply chain to distribution and ultimate disposal. Collection, aggregation, and characterization of these data will challenge current accounting systems.

The emergence of several CSR reporting standards like GRI, SASB, and IIRC also open interesting research opportunities with respect to analyses of the drivers of the convergence/divergence of such standards, underlying political economy and market factors, dynamics of adoption, firms’ strategic choice among these disclosure standards, and corresponding market recalibration of valuation models. The widespread adoption of sustainability reporting in recent years has created new business opportunities for the accounting profession, and all big accounting firms now provide sustainability reporting-related services. The accounting profession has an inherent interest in promoting corporate sustainability reporting because of many structural similarities between financial reporting and sustainability reporting. Anecdotal evidence indicates that accounting firms appear to play a big role, including certification, identifying relevant stakeholder groups, designing information systems to ensure data integrity and reliability, and choosing proper sustainability performance indicators to meet stakeholders’ expectations. Nonetheless, little is known about the impact of accounting firms’ involvement in firms’ decision to adopt sustainability reporting and a sustainability strategy. In addition, there is limited research on the usefulness, credibility, and reliability of CSR disclosures to different stakeholders. Extant studies tend to focus on firms’ decision to publish a standalone CSR report with minimal effort to evaluate the information content and to match the content with stakeholder’s expectations.

The current debate on the relationship between corporate social and environmental performance and future financial performance is likely to continue, and the availability of more accurate, detailed, and comparable information about corporate social and environmental investments through adoption of CSR reporting standards will enable more refined and nuanced analyses. Similarly, design and evaluation of sustainability management and control systems, and scorecards using modern Big Data analytical techniques is an open field with rich research possibilities.

—Satish Joshi
Michigan State University
—Yue Li
University of Toronto

REFERENCES


