David versus Goliath: Harnessing the Power of SMEs in the Fight for Sustainability

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Abstract

Climate change, resource depletion, environmental and economic disparity are the twenty-first century Goliaths. Governments, NGOs and corporations when "fighting" the Goliaths often overlook small and medium enterprises, the twenty-first century Davids.

SMEs have a substantial aggregate impact and are frequently referred to as the "economic engine" of a country. In this conceptual paper, the authors demonstrate that, due to SMEs' aggregate impact and economic functions, their participation in sustainable development is essential. Most SMEs are intimate with their customers, rely heavily on their local economy, and their owner-managers have stronger motivations than mere profit maximization. This provides the incentive for them to participate in the betterment of their communities. While governments, NGOs, and large corporations are increasingly recognizing SMEs' importance, there is frequently a gap between their rhetoric and actions in engaging them. SMEs themselves find the concept of SD ambiguous and the terminology inappropriate to their operations. Those that strive to adopt sustainable practices and develop sustainable initiatives frequently are unclear on the appropriate tools or lack the resources with which to do so. This paper identifies key factors that will enable SMEs to not only become sustainable enterprises, but also to champion SD.

Keywords: SMEs, climate change, resource depletion, environmental and economic disparity, sustainable development.

Introduction

Climate change, resource depletion, environmental and economic disparity – these are the twenty-first century Goliaths. Governments have been discussing how to fight these Goliaths for over twenty years with limited success, if any. In some cases, policies have taken us back instead of moving us forward. Sustainable development (SD) is the most promising armament to slay the giants. Non-governmental organizations (NGOs) and the general public have directed their attention on large corporations, due to their global impact and a perception that these organizations have been significant contributors to the problems while small and medium enterprises (SMEs) have been primarily overlooked. This is a disservice as SMEs are the twenty-first century Davids. SMEs have a substantial aggregate impact and are frequently referred to as the "economic engine" of a country.

Designed for a broad audience, this paper provides an overview of sustainable development (SD) and its importance to the global community. A review of SMEs' contributions, functions and roles will demonstrate that not only is their participation essential in moving toward a sustainable economy, but also SD is essential to their organizations. The paper also delves into how sustainable development within SMEs generally differs from that of large corporations. An examination of current government, NGO and corporate practices will highlight successes and limitations in including SMEs in SD initiatives. The paper ends with an assessment of how SMEs are currently engaged.

Based on this analysis, a roadmap to success is presented. It includes initiatives for government, NGOs and large corporations to address the challenges SMEs experience in their sustainability journeys and to create business environments to facilitate SME participation towards achievement of sustainability. Recommendations follow for the owner-managers of SMEs to promote sustainable initiatives within and amongst themselves.

Research design and data collection

This is a conceptual paper, drawing from qualitative case studies conducted internationally of SMEs and their approaches to sustainability. Such an approach is appropriate when there are few metrics to quantitatively evaluate the subject matter or when the data cannot be assessed adequately using existing frameworks. Because there are many definitions of SD and several approaches, how these concepts can be effectively implemented by SMEs is an interpretive process. Other scholars have used this method to apply current theories to different business issues, or, as is the case in this paper, to different business sectors.

A variety of supplementary sources have been reviewed to compare and contrast the case study findings with current general practices and progress. It is worth noting that the majority of documents produced relate to corporate social responsibility (CSR) specifically, followed by environmental considerations, rather than SD as a holistic concept. As the concept of sustainable development is continually evolving, and its application has only recently been applied to SMEs, the focus herein is on the most current literature available. Studies within the last five years and the most current government and NGO reports have served as primary data for this analysis.

2.1 Scope, Limitations, and Assumptions

SMEs are heterogeneous and there is no "one size fits all" approach to facilitating sustainable development within each organization. To add further complexity, SMEs experience different sustainability challenges depending on their geographic location. As this paper is designed for a broad audience, its intent is to examine how sustainable development within SMEs generally differs from that of large corporations, with an emphasis on SMEs in developed countries.

Sustainability, CSR, and environmental management are terms frequently used interchangeably within the literature, although each has a distinct nuance, and, so, could be considered independently. Due to limited data availability on sustainable development and SMEs specifically, for the purposes of this paper case studies on all three, as applied to SMEs, have been referenced. This presents a challenge in correlating disparate literatures to holistic sustainable development principles.

The case studies reviewed have been conducted most frequently by interviewing SMEs. Depending on the study, participants were either pre-selected or included based on their willingness to cooperate. The author recognizes that this method of data collection may have impacted the accuracy of the results and subsequent analyses of the studies' authors. As supplementary sources reviewed support case study findings, it is unlikely these possible inaccuracies materially affect the analysis presented herein.

Sustainability and sustainable development

3.1 Definitions and Concepts

"[Sustainable development] is a delightfully diverse, safe, healthy and just world, with clean air, water, soil and power – economically, equitably, ecologically and elegantly enjoyed." - William McDonough, co-author Cradle to Cradle

Let us start with some commonly available definitions and develop them further with other ideas and concepts.

Sustain: to keep, or keep going, as an action or process; to endure; to remain viable (www.dictionary.com).

Sustainability: capable of being sustained (economics); capable of being maintained at a steady level without exhausting natural resources or causing severe ecological damage (environmental science) (www.thefreedictionary.com).

Sustainable development: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).

The definition of sustainable development above was first introduced by the Brundtland Commission in its report "*Our common future*," in response to global concerns of economic stagnation and environmental degradation at the time (Holliday et al., 2002). While it is the most commonly cited definition of sustainable development, it has been criticized as being vague and lacking direction on how to achieve it (ibid.).

3.1.1 Complementary and Competing Concepts

In addition to the multitude of definitions proposed for sustainable development, concepts such as corporate social responsibility (CSR), eco-efficiency, environmental stewardship, and resiliency have been used interchangeably within both academic and business literature. While it is beyond the scope of this paper to provide a review of the nuances amongst and between these terms, it is worth noting that the definitional fragmentation creates additional confusion for an already ambiguous concept. It also contributes to businesses disassociating their operations from sustainable development, as addressing the environment and CSR are frequently perceived as "add-ons" rather than core business processes (Jamali et al., 2009; Jenkins, 2009). Sustainable development requires a more holistic approach and as such, using these terminologies

interchangeably may actually contribute to the slow adoption of sustainable principles as opposed to being of benefit.

Furthermore, while it has been suggested that CSR is a mechanism with which to achieve sustainability (Bos-Brouwers, 2009; Jenkins, 2009), the "corporate" in CSR naturally precludes SMEs (European Commission (EC), 2004; Fassin, 2008; Spence, 2007).

3.1.2 The three Es

Irrespective of the confusion caused by the myriad of definitions, approaches, competing and complementary concepts, there is one commonly accepted objective of sustainable development: achieving equitability and economic prosperity without exceeding the environmental carrying capacity of planet Earth.

3.2 Why it is Important?

Climate change, resource depletion, environmental degradation and economic disparity are issues that permeate the news on a daily basis, with many compelling arguments as to their importance. While it is beyond the scope of this paper to discuss these arguments in depth, the following points highlight the interrelationship between the three Es and the value in considering them holistically.

• Environment

Non-renewable resources, by their very definition, will cease to exist at some point. As mankind's survival depends on the natural environment, and nature provides the "fundamental rules of the game", it is essential to develop systems where humans and nature can co-exist in productive harmony (EPA, n.d.; Seale, as quoted by Even-Har, 2012).

• Equity

Although tremendous wealth has been amassed globally due to the carbon economy, 1.3 billion people remain "trapped in dire poverty" (DARA, 2012). Research suggests that unequal societies have "lower levels of trust, literacy and social cohesion", which makes it more difficult to make positive inroads on economic and environmental issues, like overcoming the sustainability deficit inherent in the carbon economy (Wilkinson & Pickett, 2009).

• Economics

While profit may not be the reason for the existence of an enterprise, it is a requirement for sustainability, and responsibly designed economic growth has been shown to contribute to improved quality of life and poverty elimination.

Small and medium enterprises (smes)

4.1 Definition and Impact

While the definition of an SME varies globally, governments most often identify them by the number of full-time equivalent workers that they employ (ftes), a certain amount of revenue generated annually, or a combination thereof. When considering the impact of SMEs, the example of Canada shows that this sector accounts for 99.8 percent of enterprises, 60 percent of employment, and 57 percent of GDP (Industry Canada, 2011). Similar statistics are present in the EU (EC, 2012b) and internationally. Furthermore, the International Finance Corporation has identified a positive relationship between a county's overall level of income and the number of SMEs per 1,000 people (WBCSD, 2007).

Clearly, the aggregate influence of SMEs is substantial, which is why they are frequently referred to as the "economic engine" of a country. While non-governmental organizations (NGOs) and the general public have directed their attention to large corporations due to their global impact, high visibility and a perception that these organizations have been significant contributors to the Goliath problems, a UK survey for the Environmental Agency noted that "SMEs are responsible for 80 percent of pollution incidents and 60 percent of commercial waste" (ENDS, 2003) and it is reasonable to assume these statistics are comparable in other developed countries. While these statistics alone could justify the importance of engaging SMEs in sustainable development, additional reasons that are outlined in this section–further underscore the value of embracing their role.

4.2 Why SMEs are Important to Sustainable Development?

SMEs' contributions to sustainable development can be separated into two categories: those that are satisfied with their market niche, but are concerned (or need to be concerned) with operating their businesses sustainably; and those that are seeking market opportunities by introducing new and sustainable products and processes to the marketplace. To distinguish between the two, they are, herein, referred to as "Adopters" and "Innovators", respectively. The majority of SMEs are Adopters. Innovators are natural incubators for such disruptive technologies. While Innovators represent a smaller percentage of the SME business bloc, they are the leading organizations for job growth and hold tremendous promise to radically shift business approaches.

4.2 1 Structural alignment

While SMEs are officially characterized by their size, they also have unique organizational characteristics compared to large corporations. A review of these characteristics suggest that they are not only well structured to match larger enterprises in their sustainability efforts (Fassin, 2008; Jenkins, 2009; Murillo & Lozano, 2006), but also have the opportunity to be SD leaders.

- The most common form of SME is one managed by the owner. As owners, they have autonomy to utilize firm's resources as they see fit that is, they are not required to maximize profit for a large group of shareholders (Freisleben, 2011; Jenkins, 2009; Spence, 2007; Spence, Boubaker Gherib & Biwolé, 2011; Stubblefield Loucks et al., 2010).
- Organizations' cultures are well-known and reflect the personal values and beliefs of the owner. Their operations are less formalized and codified than they are for large firms and, with less hierarchy and bureaucracy, information is easily and quickly disseminated throughout the organization (Jamali et al., 2009; Jenkins, 2009). This allows for alignment of action that is intimate with the company's objectives, which makes business practices a "way of life" instead of "lifeless documents" (Bos-Brouwers, 2010; Fassin, 2008).
- SMEs are more intimate with their customers and rely more heavily on the local economy than are and do large corporations; relationships are critical to their success (Spence, 2007). This provides the knowledge and incentive for them to participate in the betterment of their communities. It is commonly accepted that sustainability is a global issue that needs local solutions.
- They are flexible, organic, and can more quickly identify and respond to changes in market demand than large firms (Jenkins, 2009; Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010).

4.2.2 Job creation

In Canada, between 2001 and 2011, small firms accounted for 43 percent of all jobs created (Industry Canada, 2012). Statistics in the United States (US) cite an even greater impact. In researching the recovery periods of the recession's post-World-War-One, Henry Nothhaft discovered that "since 1977, *all* new job creation in the US has been due to startups," (Harvard Business Review, 2011). In addition, startups provide more opportunities to women and minorities and this naturally fosters a more equitable distribution of wealth. "Unlike corporate management, there is no glass ceiling in a company you start for yourself" (Chamorro-Premuzic, 2012). In the US, female-owned companies account for over \$3

trillion in GDP – equating to approximately 40 percent of China's entire GDP (ibid). While similar statistical data for Canada is unavailable, over one third of self-employed persons are women (Industry Canada, 2012).

4.2.3 Integral value chain members

A 2010 internal assessment by Baxter (medical equipment - international) calculated that its supply chain was responsible for almost 38 percent of its carbon footprint, with similar statistics (41 percent) being reported by GlaxoSmithKline (pharmaceuticals – international) (Schatsky, 2012). Puma (apparel – international) calculated their supplier impact to be over 90 percent of total water use and greenhouse gas (GHG) emissions (ibid.). As pressure is placed on large corporations to become more transparent regarding their own sustainable business practices, they will be increasingly focused on ensuring that the SMEs in their value chain adopt similar or complementary practices. As integral members of large corporations' value chains, the adoption of sustainable practices provides SMEs a competitive advantage in working with these organizations (Freisleben, 2011; Moore & Manring, 2009).

4.2.4 Innovation

While large corporations can provide scalability, historically the majority of disruptive innovations have been introduced by SMEs. This is attributable in part to their organizational structures, but also because many large companies have disproportionately excessive capital invested in current technologies. Such capital investments can lead large corporations to believe they will remain profitable operating in a "business as usual" manner and/or make it difficult to justify the cost of major retooling.

4.3 Why Sustainable Development is Important to SMEs?

"People are looking for meaning, for companies that are doing something positive. Sustainability differentiates us." - Dominic Fielden, Co-founder, Rocky Mountain Flatbread Company

While the argument for SD as a global initiative is substantive, these large-scale issues often do not resonate with SMEs. One would be hard-pressed to find an individual or company who believes that equity or the environment is not important, but without a clear understanding of how it impacts their own organizations, SD will continue to be perceived as "someone else's" problem.

4.3.1 Competitive advantage

Competitive advantage is obtained by utilizing the resources and capabilities of the organization to cater to market demand, and a higher rate of profit is realized either through reduced costs or the ability to realize a price premium. While market position is important to ensure long-term viability of any enterprise, SME owner-managers are motivated by factors other than profit maximization (Jenkins, 2009; Lewis & Cassells, 2010; Spence, 2007; Weinzimmer & Manmadhan, 2009). Grant (2008) suggests that a firm may forego current profit achieved through securing competitive advantage in favour of other opportunities, such as customer loyalty, technology, or executive perks. As a result, the concept of competitive advantage can resonate with SMEs on both business and personal levels.

Sustainable principles are based on doing more with less: improving the quality of life of all while simultaneously preserving the natural environment and adding to its beauty. These principles enable Adopters to achieve competitive advantage through improved cost control, risk management, and stakeholder (employee and customer) satisfaction. New approaches such as bio-mimicry, green chemistry, closed-loop production, and service-based sales models, offer tremendous opportunities for Innovators to realize competitive advantage by satisfying under-served market demand.

4.3.2 Resource scarcity

SMEs traditionally cater to niche markets and compete based on product differentiation; large corporations capitalize on economies of scale and commonly compete on price. While their focus is different, SMEs still need to consider costs. From a material cost perspective, SMEs are more susceptible to price fluctuations of natural resources than are their larger counterparts. Resource scarcity creates volatility in pricing and increases business risk. Evidence strongly suggests, with the growing population and wealth creation in developing countries, these challenges will only continue to increase (WWF, 2012).

When organizations minimize waste, improve efficiencies and streamline processes, they realize lower transaction costs without sacrificing value to their customers. These cost savings can benefit the organization by directly flowing to the bottom line, freeing up resources to provide added value to the consumer, or to enable the organization to become more cost competitive. From a human resource perspective, SMEs compete with large corporations for talent and frequently cannot provide comparable wages, employment security, or opportunities for upward mobility. By cultivating an environment of caring, incorporating fair labour practices, ensuring safety and promoting personal development, they are better positioned to attain and retain high quality talent (Fassin, 2008; Murillo & Lozano, 2006). In addition, individuals prefer to work in organizations with purposes that align with their own values (Holliday et al., 2002). SMEs that incorporate sustainable practices will attract like-minded individuals and secure company members committed to their organizations' vision.

4.3.3 Market demand

SMEs are heavily dependent on their external relationships with customers, suppliers and other industry members (Jenkins, 2009; Stubblefield Loucks et al., 2010). Looking at it from the other direction, consumers show increasing interest in purchasing responsibly and members of the value chain look to partner with organizations that treat them fairly. In a recent US survey by the League of Conservation Voters, "An overwhelming 93 percent say there is a moral obligation to leave an Earth not polluted or damaged to future generations, with 67 percent strongly agreeing" (Johnson, 2013). By considering the needs, preferences, and objectives of these stakeholders, SMEs are better able to deliver customer satisfaction.

While large corporations are customers for many SMEs, they can also be competitors. As consumer demand for sustainable business practices increases and large corporations can demonstrate they are meeting those needs, that competitive advantage among SMEs would be compromised.

4.3.4 Imminent regulation

While converting to renewable sources and minimizing waste can produce cost savings for SMEs, many environmental regulations have the potential to increase costs to businesses. With increasing global pressure to transition to a greener economy, regulation will only increase. SMEs proactive in adopting new technologies prior to regulation have the time to experiment and find the most cost-effective approaches for their organizations.

4.3.5 New Opportunities

Sustainable development will require a new way of thinking, and new processes and business models (Holliday et al., 2002). As one competency of SMEs is their ability to improve existing products and services, and to create new ones, SD can be viewed as a

tremendous opportunity for this sector (Jenkins, 2009; Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010). As important as innovation is to sustainable development, it is the basis on which SMEs create value, niche markets and product differentiation.

4.3.6 Ethics

"Indeed the modern organization was expressly created to have results on the outside, that is, to make a difference in its society or its economy." - Peter Drucker, Management guru

Businesses, both large and small, have an obligation to be good corporate citizens. It is their "license to operate," (Sexty, 2011). Most SMEs are rooted in their communities and are greatly impacted by the local economy and environmental conditions (Medina-Munoz & Medina-Munoz, 2000; Moore & Manring, 2009). Healthy, prosperous, and diverse communities ensure the long-term viability of any organization. "Business cannot succeed in societies that fail," (Holliday et al., 2002).

SMEs are motivated more by metrics such as quality, customer service, employee satisfaction and ethics than by profit maximization. SMEs naturally embrace sustainable principles as a result. Creativity and innovation are further nurtured when SMEs view current business models, and products/services through the sustainability lens (Lefebvre & Lefebvre, 2012; Stubblefield Loucks et al., 2010).

Relationship of SMEs with government, NGOs, and corporations

Recognizing that both the global sustainable development agenda and SMEs themselves can benefit from SME involvement, it is worth examining the current state of affairs. Several questions arise. Do government and NGO initiatives consider the unique needs of these organizations? How do large corporations promote sustainability practices within SMEs? What is the current degree of SME participation and the challenges they encounter introducing sustainable programs?

5.1 Government and NGO Initiatives

While it is impossible to review the efforts of all governmental bodies and NGO initiatives, the following section provides a general picture of different degrees of commitment in Canadian and European governments, as well as the focus and initiatives of some prominent international and Canadian NGOs.

5.1.1 Canadian vs. European Efforts

Industry Canada has created a sustainability roadmap for SMEs that is available on its website and which is little more than a document that describes responsible business practices and links to other governmental and non-governmental resources (Industry Canada, 2011). Most programs are provincial, and while some target specific industries with sizeable SME participation, (such as farming), the majority do not target SMEs. In reviewing all federal and provincial grants, contributions, and financial assistance, programs to promote "green" initiatives represent less than fifteen percent.

In contrast, with a \in 3 million budget, the EC (2012a) co-financed fourteen projects over a three year period (2006-8), partnering with multiple organizations and directly organizing events, seminars, and training modules. Considering the EC's commitment to engaging SMEs and comprehensive reporting on their initiatives, what is surprisingly absent are metrics on the impact that their initiatives have had improving SD adoption within SMEs.

5.1.2 NGOs

International NGOs with activist agendas have been instrumental in raising awareness of sustainability issues, primarily on an international level (IISD, 2012). With this focus, NGOs' engagement naturally is geared toward large corporations, but SMEs are impacted indirectly. Understanding the influence large corporations can wield, watchdog NGOs have drawn attention to the sustainability practices of these companies' value chains as well as their own operations. NGOs with a willingness to work with business enterprises are partnering with large corporations to create programs that fund and cultivate sustainable development within the operations of their supply chains.

There are varied levels of SME engagement with NGOs that focus on education, information dissemination and the development of programs to support sustainable development within businesses agendas. Two organizations spearheading international frameworks for sustainability – the Global Reporting Initiative (GRI) and the International Standards Organization (ISO) – have introduced programs specific to SMEs.

The Canadian Business for Social Responsibility (CBSR) is a non-profit organization referenced by Industry Canada as a resource for SMEs, but calls itself "a vital aspect

of the Canadian corporate persona" (<u>www.cbsr.ca</u>). Furthermore, although CBSR introduced a reduced membership rate for SMEs in 2013 (50 percent less), its message: "get visibility for your valuable CSR commitments" is unlikely to interest the typical SME owner-manager. Case studies have indicated SMEs are uncomfortable in promoting their CSR commitments (Jamali et al., 2009; Jenkins, 2009).

Alternatively, the Network for Business Sustainability (NBS), is a growing international network of academic and business leaders seeking to align "resource-based practice with practice-based research" (<u>www.nbs.net</u>). With the sponsorship of Industry Canada, it has not only realized the importance of SMEs, but has restructured its organization to direct resources to SME sustainability development. Their first SME conference was held in October of 2011, with a newly created council dedicated to SME issues having its first meeting in March of 2012 (ibid.). Due to its recent creation, it is premature to assess the effectiveness of the SME council or its initiatives however its holistic approach is promising.

5.1.3 NGO Certifications and Eco-labels

Many NGOs also support SD by leveraging their credibility to influence consumers. In creating independent certifications and eco-labels, their endorsements contribute to consumer confidence. This allows consumers to make better-informed decisions and purchase more responsibly, driving sustainable development from the demand-side. Again, while these programs promote SD on a global scale, they have mixed results in supporting sustainability within SMEs. There are over 400 eco-labels in the marketplace, with almost half originating by NGOs (Corporate Sustainability Initiative, 2010). This makes it difficult for SMEs to decide which certification(s) are best suited to their organization. Also, there is little differentiation in the certification process of large corporations and SMEs. As certifications can be time consuming and costly, this puts SMEs at a disadvantage.

5.2 Corporate Initiatives

In a study of France's 40 largest companies (by market capitalization), the authors found all had adopted some form of GHG management strategy due to significant media exposure and public pressure. The extent to which the companies embraced sustainability, however, varied significantly. To identify these differences, the authors categorized the companies as "Conformist", "Engaged", or "Visionary" (NBS, 2012b). As there are varying levels of commitment to sustainable development within large corporations, there are equally varying levels of commitment they make to the SMEs

within their value chain with respect to the adoption of sustainable practices. As a rule, the programs of companies who have embraced sustainable development as a corporate cultural value not only encourage SME participation, but also facilitate their learning, knowledge and implementation.

In 2001, Danone, one French "Visionary" company identified in the study, introduced "The Danone Way". It is described as "a charter, code of conduct and self-assessment tool that integrates CSR into every business unit" (ibid.).

"Our approach of being an open-minded company seeking to co-design new solutions with our stakeholders is firmly rooted in Danone's culture and model and contributes to our overall long-term performance." - Franck Riboud, CEO Danone

Interface is another multinational corporation hailed as a beacon for SD. As a commercial carpet manufacturer, Interface was heavily reliant on petroleum-based products. Its strategy, "Mission Zero", was formulated in 1994 – the objective: by 2020 to have zero impact on the environment – taking nothing from the earth that cannot be reproduced by the earth, generating no waste that cannot be used as "food" for another process. Its philosophy in regard to its supply chain: a "green" company cannot use "brown" suppliers (Anderson, 2009).

In 2005, Walmart unveiled a "sweeping business sustainability strategy" adapting its business model from an internal focus to external – partnering with non-profits, government agencies, consultancies and academic institutions for expertise (Plambek & Denend, 2008). It has collaborated with NGOs and government agencies to ensure its suppliers meet stringent guidelines (certifications, processing standards) and looked further down the supply chain to recognize opportunities to select better suppliers. Walmart also changed its purchasing model to forge closer, longer-term relationships with its suppliers and help support sustainable initiatives.

While there are many other similar examples of "Visionary" efforts to promote SD within the value chain, industry benchmarking studies by Green Research suggest that overall there remains substantial room for improvement. Although the supply chain accounted for a significant portion of the top performers' carbon footprints, (publicly available) initiatives to address improvements throughout their supply chains averaged less than 4 percent (Schatsky, 2012). Table 1 provides a breakdown of the data per industry.

Industry	Operations Goals Share of Total	Supply Chain Goals Share of Total
Medical Equipment	87%	4%
Non-Alcoholic Beverages	72%	0%
Pharmaceuticals	90%	3%
Telecommunications	69%	7%
Food Processing	87%	4%
Source: Green Research analysis (2011-2012)		

Table 1 – Share of Sustainability Goals by Value Chain Location

5.2.1 Social Initiatives

While an increasing number of large corporations are advancing environmental initiatives through their supply chains, adoption of social initiatives have been slower. Even within "Visionary" organizations, social initiatives (other than philanthropic) have been introduced subsequent to environmental ones. This can be attributed to the fact that environmental improvements are easier to benchmark and cost savings directly benefit the bottom line.

Many large corporations encouraging sustainable environmental practices within SMEs –Walmart included – are also pressuring these same companies to cut costs and fix prices (Fassin, 2008; Mitchell, 2012). The trend to use manufacturing and support services offshore forces local SMEs to compete with labour rates unsustainable in their home countries and/or produce inferior quality (and subsequently more disposable) products. This sends mixed messages to SMEs – should they invest in sustainable practices for long term benefit or be the most cost-competitive?

5.3 SME Participation

Because of the heterogeneous nature of SMEs and their lack of formal reporting, it is more challenging to assess their participation than it is within large corporations. A report from the EC's (2004) Roundtable concluded that relatively little is known about CSR practices within SMEs and better baseline data is needed to more accurately assess the scale and impact of their initiatives. They noted, however, that it is clear many SMEs are committed to sustainable practices (ibid.). Although additional research has been conducted subsequent to its report, conclusions regarding SME participation have been mixed. CSR, as it applies to large corporations, is rarely found in SMEs, but CSR principles – at varying degrees – are well entrenched in many SME

Spence et al. (2011) conducted a study of 44 SMEs in three French-speaking countries and labelled participants' efforts similarly to the study of France's large corporations: "Indifferent", "Aware" and "Committed". These labels underscore the personal nature of SME operations. An "Indifferent" organization reflected the owner-manager's opinion that they are "not guilty" of environmental degradation; that it is "someone else's" problem. Conversely, owner-managers of "Committed" organizations were "convinced that their actions will benefit the larger community [and]... provide them and their employees with a living and make them better persons, as well as give them a competitive edge" (ibid.).

The importance of personal values of the SME owner-manager cannot be stressed enough. In all case studies reviewed, the company's commitment to sustainable practices was a direct result of the owner-manager's buy-in and, in most cases, initiatives are personally implemented. As a rule, although their practices are not formalized, they are internalized – *"the way we do business around here"* (Bos-Brouwers, 2010; EC, 2004; Fassin, 2008). Formalization is more prevalent when required by governance or international business relations (Spence et al., 2011).

Contrasting to large corporations, research suggests that SMEs place a greater emphasis on the social aspects of SD over the environmental. This can be attributed to the fact that such initiatives require less capital, utilize existing resources and are congruent to their business objectives. Most SMEs have an ingrained sense of responsibility to their employees, customers and community (Fassin, 2008; Jamali et al., 2009; Jenkins, 2009; Murillo & Lozano, 2006). Reliant on local economics and reputation, issues that concern them most are more personal – work-family issues; employee retention; trust; altruism (Jamali et al., 2009).

5.3.1 Environmental Initiatives

The UK Environment Agency's 2009 survey of 7,000 respondents identified a steady increase in the adoption of environmental measures since 2005. The most common measures were incorporating cost reductions such as recycling and reducing business waste, improving energy efficiency and reducing water usage (Netregs, 2009). While larger SMEs (50-249 ftes) were more aware of their environmental impacts, the majority of businesses still considered a formalized environmental management system (EMS) to be of "little or no use" to their organizations (ibid.).

The results of Netregs' survey are supported by case studies in both developed and developing nations. Many academics and NGOs have concluded that while there is

increasing awareness, the majority of SMEs continue to view their environmental impact as negligible or environmental initiatives as too complex and costly to implement (Lewis & Cassells, 2010; NBS, 2012a; Revell, Stokes & Chen, 2010).

When resource efficiency or environmental conditions are perceived as crucial to competitiveness, SMEs are more likely to engage in learning and incorporate systemic practices (Cassells & Lewis, 2011; Millard, 2011). For example, in the rubber and plastics industry, oil derivates have already become increasingly costly and scarce, which has incited several SMEs within the industry to utilize renewable (and environmentally-friendly) alternates and re-design processes to incorporate recycled materials and reduce waste (Bos-Brouwers, 2010). Not only has this eco-efficiency provided them with more consistent cost control, to several it has been a source of value creation for their organizations. Similarly, recognizing environmental preservation as a necessary element in securing their livelihoods, SMEs in the Canary Islands have voluntarily implemented environmental system certification within their farming and tourism industries (Medina-Munoz & Medina-Munoz, 2000).

5.3.2 Leadership Examples

In addition to academic literature, current news increasingly features small companies who have embraced sustainable principles. For example. Johan Reyneke Jr. converted his family winery in South Africa (a multi-generation business) from conventional to biodynamic, self-sustaining agriculture. His reason: "I wanted [my two girls] to be able to play in the fields. If I was spraying chemicals, they wouldn't be able to do that" (Siddiqi, 2012).

Five "green" building companies were featured in the October 2012 edition of *Canadian Contractor*. While each has a unique emphasis on their sustainable principles, all had incorporated green products and methods over and above mere energy efficiency, and agree that "the perception that green is prohibitively expensive is outdated and misleading" (Laudrum, 2012).

Lehigh Technologies, backed by venture capital funding, converts used tires into micronized rubber powders for re-use in other products such as new tires, pallets and waterproofing. Green Roads Recycling partnered with two other paving contractors and the British Columbia government to develop technology to recycle asphalt in place. Both company managers echo the same sentiment: burning, burying or down-cycling finite resources are not solutions... they are problems to be solved (Gunther, 2013; Thompson, 2012). Despite challenges faced in gaining widespread

acceptance (Lehigh's plant currently operates at only half-capacity), they are convinced they are providing answers for the future.

Many SMEs are creating cooperatives on their own within their industries. CROPP, the largest cooperative for organic farmers in the US, boasts over 1,700 members and is projecting growth over 25 percent this year (Guevarra, 2012). They provide marketing expertise to their members that any one SME would be unable to maintain, let alone afford, and pay higher rates to their farmers than any other organic co-op in the country (ibid.). CROPP provides other membership support to advance sustainable practices as well. Examples are process implementation assistance, administrative guidance to obtain organic certification and animal care specialists.

Leadership in sustainable practices is not new for many SMEs. For example, Ecological Fibers, Inc. has been committed to environmentally sound paper coatings since the 1970s (CICA, AICPA & CIMA, 2011). The owner-manager "was more interested in protecting the environment and his employees than saving money" (ibid.). When every other company in the industry was using solvents, Ecological Fibers developed a water-based solution with no harmful components – protecting the environment, the health of its workforce and any potential risk to its end users (ibid.). Over the years, other sustainable practices have been incorporated in both its manufacturing processes and facilities – such as using only FSC certified products, incorporating post-consumer recycled content, energy efficiencies, and converting to cleaner energy.

5.4 Challenges

While there are an increasing number of examples of SMEs implementing sustainable practices, they remain a minority. This can be attributed to the challenges discussed in this section.

5.4.1 Concerns about "Greenwashing"

Newsweek magazine study determining which US companies are the "greenest" discovered that, not only do "the worst environmental performers communicate more extensively on their environmental actions", but also that "both reputation and membership in the Dow Jones Sustainability Index (DJSI) appear to be related more to what companies say through environmental disclosure than what they do" (Cho, 2012). A cursory review of the sustainability commitments of Accor, a "Conformist" according to the French study referenced earlier, would suggest to the reader that the organization has a robust program (Accor, n.d.). The more comprehensive review

conducted by that study's authors, however, led them to conclude that the company does nothing more than meet regulations (NBS, 2012b). This supports the concern that is cited by many SMEs that environmental responsibility and CSR within large corporations are merely communications and marketing strategies rather than cultural values (Fassin, 2008; Jenkins, 2009; Murillo & Lozano, 2006). As a result, it is understandable that SMEs are reticent to associate themselves with similar practices.

While the third-party certifications of products and services by NGOs may contribute to consumer confidence, there is little empirical evidence of a "causal link between certification or eco-labeling efforts and real improvements in social and environmental outcomes" (Corporate Sustainability Initiative, 2010) and fraud cases have demonstrated that audits do not guarantee performance either (Fassin, 2008).

5.4.2 Terminology

There continues to be much confusion regarding what constitutes sustainable development. Terminology and business practices not only need to be more clearly defined and standardized, but also adapted in order to be applicable to the unique organizational structure of SMEs. Case studies and government reports indicate that even the language used to define sustainability does not resonate with SMEs. "The very phrase '*Corporate* Social Responsibility' implies a certain size of enterprise" (EC, 2004). One company presenting at the EC's CSR forum stated, "we did not want to be in CSR but now we are happy we did" (EC, 2004), underscoring the negative stigma SMEs attach to it as a "big business" philosophy.

5.4.3 Tools

"Overnight, our sector was inundated with initiatives and certifications aimed at facilitating the adoption of sustainable practices. Making an informed choice about the best solution for our company was a laborious process." - Jean Barbeau, Artopex, NBS SME Council member

While there is increasing exposure for and interest in SD, there is still much debate regarding effective implementation and confusion about which tools are the most appropriate to incorporate (Murillo & Lozano, 2006). For example, how does an SME choose the eco-label(s) with which to incorporate? Support offered by formal organizations is seen as "patchy, not coming from the right sources, is confusing, overlapping or is not the right kind of support" (Fassin, 2008; Jenkins, 2009).

Information overload can cause paralysis, with SMEs choosing to continue "business as usual" rather than trying to navigate the labyrinth of options.

There is also a tendency to "re-size" CSR for SMEs instead of re-examining principles to address the unique characteristics of these organizations (Freisleben, 2011; Jenkins, 2009). For example, although admirable in its effort to engage SMEs, few SMEs implement GRI reporting, and the complexity of International Organization for Standards (ISO) certification led a Guardian reporter to suggest the acronym really stands for "irritate small organizations" (Large, 2012).

5.4.4 Lack of Demand

Weak industry pressures and governmental policies have signaled to SMEs that performance on issues of environmental protection and stability is not a priority and many SMEs have that stated consumers are unwilling to pay a premium for environmentally responsible products or services (Revell et al., 2010; Spence et al., 2011). As research indicates this is a changing trend, and as more organizations understand how to migrate to sustainable practices without the need to pass cost increases to their customers, this is the least substantiated argument, but does attest to owner-manager attitudes.

5.4.5 Owner-manager Attitudes

"Without a committed entrepreneur, nothing happens," (Spence et al., 2011). Owner-managers may incorporate some initiatives that are personally valuable to them and forego others. Millard's (2011) research suggests that more stable companies are less likely to be receptive to learning.

A lack of awareness also influences owner-manager attitudes. With 93 percent of UK SMEs believing they do not engage in any harmful environmental activities (Netregs, 2009), it is understandable that they perceive environmental management as superfluous.

5.4.6 Resource Poverty

It has been argued that business needs to actively engage in the sustainability solution, because they have not only contributed to the problem, but, also, have the resources necessary to provide solutions, (Hart, 1997; Holliday et al., 2002; Wilson, 2003). While the former may be applicable to SMEs, a common argument for why SMEs do not engage in sustainable practices is their resource poverty (Bos-Brouwers, 2010; Cassells & Lewis, 2011; Freisleben, 2011; Murillo & Lozano, 2006; Revell et al. , 2010).

Even with the desire of the owner-manager, lack of manpower or capital required can prevent the introduction of new initiatives or the ability to obtain third-party certifications (Lewis & Cassells, 2010; Murillo & Lozano, 2006). Although the long term benefits of environmental initiatives frequently outweigh costs, many require initial capital expenditures and expertise that may be difficult for SMEs to acquire.

Third-party certifications can be lengthy and costly to obtain and more difficult for SMEs to absorb than for their larger counterparts. Formalized reporting procedures are labour intensive and do not suit the organic structure of SMEs (Fassin, 2008). Even the "SME friendly" ISO 14001 reporting standard remains costly and cumbersome; direct and indirect costs can exceed \$35,000. Additionally, there are other management and supporting costs associated with embracing sustainability. Thus, some SMEs "simply pay the fines associated with environmental regulations rather than initiate a costly and seemingly complex management standard" (NBS, 2012a).

5.4.7 Access to Capital

Access to capital through traditional investment mechanisms is difficult to obtain and usually incurs higher rates or for shorter terms. This has required Adopters to use their (already limited) working capital to fund improvements and restricts the opportunities for Innovators to bring new products or services to market. According to the CEO of one Canadian clean-tech company, the early part of development is the most difficult to fund, but occurs when capital is, perhaps, the most critical (Marshall, 2012). The complexity and administrative requirements for loans, as well as government and NGO-sponsored grants and programs, further exacerbate the inability, and discourage the willingness, of all but the larger SMEs to utilize their programs (Fassin, 2008).

Roadmap for success

"The stone age didn't end because we ran out of stones." - Shiekh Zaki Yamani, Former OPEC Foreign Minister

Sustainable development "will require types of partnership never before witnessed in human history," (Holliday et al., 2002). Until the tipping point is reached where sustainable development is perceived as an opportunity instead of an obligation (commitment versus compliance), and is embraced by all stakeholders, government, large corporations and consumers, SMEs will be slow to embrace its principles. SMEs need to be engaged in the same manner in which they do business: locally;

personally; and, within networks and associations with whom they trust and regularly interact. Based on the analysis above, governments, NGOs, large corporations, and SMEs themselves can implement several initiatives that will greatly contribute to SME commitment.

6.1 Government and NGOs6.1.1 Walk the Talk

"Without political leaders willing to push change via policy, citizens and corporations are left to grapple with whether and when to change their own behaviours and standards."

- The Regeneration Roadmap (2012).

Government, like big business, is frequently slow to adopt new protocols and processes. For example, although Leadership in Energy and Environmental Design (LEED) is being adopted by many governmental bodies, new building processes, such as vegetated roofs and water catchment systems, have been disallowed by many; and, conventional paving remains a requirement for Albertan municipalities even though recycled asphalt is a proven green technology. Incorporating sustainable technologies in governmental procurement standards both encourages and supports environmental innovation.

6.1.2 Minimize Bureaucracy and Scale Costs

Requiring SMEs to adopt rigorous reporting procedures or obtain complex certifications may prove not only to be ineffective in achieving the desired goals, but also counterproductive when progress is clawed back (EC, 2004; Large, 2012). It runs the risk that SMEs will focus more on compliance than adopting valuable sustainable practices or, worse, turn them off SD altogether. Widely accessible and easy to understand standards and guidelines, as well as simplified versions of reporting and labeling programs, would be better embraced by the SME community (EC, 2004; WBCSD, 2007).

SMEs already bear a disproportionate burden of regulatory costs (Deveau, 2013) and will be reticent to introduce SD initiatives if compliance is forced via additional regulatory and bureaucratic hurdles being required. By reducing the cost of regulation and streamlining approval processes for sustainable systems and products and their development, SMEs will be encouraged to channel their capital towards initiatives that provide sustainability solutions for the future.

6.1.3 Restructure Incentives and Facilitate Funding

Existing policies and market incentives have allowed businesses to externalize social and environmental costs and have supported non-renewable technologies (UNEP, 2011). Subsidies that promote the depletion of natural capital and use of non-renewable resources discourage investment in and development of sustainable business methods, products, and services. For example, in 2008, global subsidies for fossil fuel consumption were estimated at US \$557 billion (UNEP, 2011). While the Canadian oil and gas industry is controlled by large corporations, the majority of clean tech companies are SMEs (de Sousa, 2013). Eliminating these subsidies and establishing a strong clean energy plan would contribute to providing some of the certainty needed by SMEs to attract capital investment and commitment to sustainable technology development (de Sousa, 2013).

Many grants and programs that are specific to SMEs focus on growth, such a funds for equipment purchase, without consideration for the sustainable characteristics of the initiative. Restructuring these incentives to specifically promote green technologies can provide much-needed capital and mitigate SMEs' risk in adopting or creating SD initiatives. It should be noted that application requirements for such programs should be structured as per the recommendations above: simplified and made easily accessible by incorporating a fast-tracked approval process.

Governments can implement policies to facilitate and promote private investment in SME businesses as well. Providing loan guarantees and tax incentives can mitigate the risk that venture capitalists and traditional lending institutions perceive in investing in small and start-up organizations and new technologies. Crowdfund investment (a new financing structure for raising small amounts of capital from a large number of investors) is believed to become a significant source of financing for SMEs, but is currently not legal in many countries (Invest Crowdfund Canada, 2012). Legalizing the structure, as well as promoting SD business models and practices within this investment mechanism, would encourage SMEs to refocus towards these opportunities.

6.1.4 Build Connectivity and Capacity

Because SMEs are rooted in their communities and greatly impacted by local conditions, the greatest impact will be achieved by shaping sustainable initiatives at and for local or regional levels (EC, 2012a; WBCSD, 2007; WWF, 2005). International agencies speak the same language as international businesses; SMEs identify with smaller, regional entities. National and international governments and

NGOs can partner with local representation, such as municipalities and chambers of commerce, to translate broad initiatives to local scale. This provides the benefit of worldwide expertise developing a web of local solutions to global issues.

Educational institutions, such as universities, business schools and entrepreneurship development centres can be encouraged to add SD to their curriculums and support services. Funds specifically flagged for sustainable entrepreneurship agendas, as opposed to business survival/success education, would be most effective in building those capabilities. Research on sustainable technologies can be supported within the academic community and bridges be built to help SMEs to commercialize those same technologies.

6.2 Large Corporations

"We as global companies can provide the catalyst to partner with SMEs to mutual benefit. We can access their local expertise and markets; they can access our technologies and business skills for local momentum." - Michael Pragnell, CEO, Sygenta

6.2.1 Maximize Influence

Rather than the typical scorecard used by large corporations, Schatsky (2012) of Green Research, a consultancy, suggests that these companies should "invest in suppliers' success". Merely requesting information from suppliers is not sufficient to engage them. "Suppliers often don't have a clear idea of what is expected of them and where to focus their own sustainability efforts" (ibid.). His company's four stage engagement process (see Figure 1) is one mechanism to improve two-way communication. This provides vital information to each side for continual improvements in the SD efforts of both. Corporations can reward committed participants by creating a preferred vendor program, sharing cost savings and income generation, and providing access to company resources for joint venture opportunities (EC, 2004).

Figure 1 – Stages of Supplier Sustainability Engagement



Source: Green Research, Schatsky (2012)

6.2.2 Share Resources and Expertise

The resource poverty of SMEs is likely the most common argument for why they have been slow or unable to transition to sustainable enterprises. In many industries, technology is no longer a barrier to environmental sustainability efforts (Caulfield, 2012), however this technology (or the expertise with which to incorporate it) may still be unavailable to smaller enterprises. Companies that share their expertise with their suppliers can accelerate suppliers' performance gains and ultimately improve their own (Schatsky, 2012).

The Sustainability Consortium (www.sustainabilityconsortium.org) is an excellent example of large corporations' commitment to actively supporting sustainable initiatives throughout their supply chains. Initially spearheaded and funded by Walmart in 2009, it was created to improve sustainable business practices across industries and throughout multiple value chains. A primary objectives of the Consortium is to develop "a standardized framework for the communication of sustainability-related information throughout the product value chain [to enable]... rigorous product level Life Cycle Assessments (LCAs) to be done at a fraction of today's time and cost, and provide a platform for sustainability-related data sharing across the supply chain" (ibid.). By such standardization, clear, consistent, and cost-effective data has the potential to greatly benefit the SME community. One thing worth noting is the apparent lack of direct SME representation within the Consortium. While the efforts of the group are brought into the members' organizations to address with their respective suppliers, direct SME participation may contribute to a deeper understanding of universal issues facing their organizations.

6.2.3 Capitalize on the strengths of SMEs

"The more progressive multinationals understand that, to innovate, they often don't do it very well internally" (Marshall, 2012). Many large corporations acquire SMEs that have developed innovations valuable to their operations, however a large percentage of mergers and acquisitions fail to deliver anticipated benefits (Moore & Manring, 2009). Alternatively, providing SMEs with the much-needed capital to develop sustainable products and processes produces win-win scenarios: innovation is expedited through the SME without the pitfalls of assimilation and scalability is available through its larger partner.

A McKinsey & Company article on improving manufacturing operations suggests turning supply chains into supply circles (Mohr et al., 2012). As closed loop systems become prevalent, mechanisms to recover materials to reuse in the production process

will be necessary. Such services are better suited to SME partners, allowing large manufacturers to focus on their core operations. To develop these processes successfully, corporations need to engage in conversation and develop relationships with suppliers to strengthen capabilities (ibid.)

6.3 SMEs

6.3.1 Collaboration (Networks and Alliances)

The most "committed" SMEs freely share information and are active members of networks and industry trade associations (Millard, 2011; Revell et al., 2010). Research suggests that SME owner-managers prefer to learn from their peers, frequently viewing competitors (other industry members) more as colleagues than enemies (Revell et al., 2010; Spence, 2007). While Hart and Milstein (1999) caution that "collaboration among competitors can serve to perpetuate the current industry structure", Spence et al. (2011) suggest these interactions create normative pressure for participating firms, increasing the commitment to sustainable practices of all.

Alliances within the SME business bloc, either within or across industries, can enable participating companies to promote like-minded agendas, share risks, costs, and expertise. This pooling of resources allows SMEs to become more competitive with their larger counterparts. Moore and Manring (2009) compare the effectiveness of networks of SMEs versus that of large corporations to networked versus mainframe computers: the former can be much more efficient in the twenty-first century marketplace of rapid change by capitalizing on the fluidity and nimbleness of its individual members.

An alliance can also serve to promote relationships between SMEs and large corporations. While SMEs are well-suited to developing sustainable innovations, they need to expertise to successfully deliver and market their creations. As an example, Sustainable Development Technology Canada (SDTC), an alliance of clean-tech companies, serves both purposes. While it supports small companies in attracting capital and developing competencies, it also acts as a liaison between clean-tech SMEs and the larger corporations whom they serve. "Conversations between an SME and multinational [can be challenging]... SDTC operates as a very useful bridge between the two" (Marshall, 2012).

6.3.2 Knowledge

Gaining a deeper understanding of environmental and social issues is important; understanding how to translate this understanding into viable business practices is critical. Ray Anderson began his company's transformation after reading Paul Hawken's The Ecology of Commerce and acknowledging he was a "plunderer of the earth". However, from there, he sought help to understand how sustainability could be incorporated into his business by creating an "Eco-Dream Team" (Anderson, 2009). While SME owner-managers are not in a position to invite the great SD thinkers into their companies' boardrooms (if they even have a boardroom), they can amass knowledge through books and online sources. Participating in the networks and alliances discussed above can reinforce and disseminate the sustainability and sustainable development concepts learned from those sources and help put them into context for their respective businesses (Stubblefield Loucks et. al., 2010). SME owner-managers who embrace sustainable principles may be reticent to boast about their initiatives to their customers, but are very willing to share when it involves promoting the wider acceptance of these ideals (Jenkins, 2009), as within a networked community of their SME and business peers. Millard (2011) concluded that higher level learning was facilitated within networks of broader groups, and enabled companies to see environmental issues in a broader perspective.

Regarding the owner-managers' tacit knowledge and the explicit knowledge gleaned from outside the organization, developing mechanisms to transfer that knowledge throughout the organization is important for ensuring successful SD outcomes.

6.3.3 Leadership

"If you think you're too small to have an impact, try going to bed with a mosquito." -Anita Roddick, Founder, Body Shop

The primary differentiator between a sustainability leader and laggard is personal commitment. As repeatedly concluded in case studies and reinforced throughout both business and academic literature, it is leadership that determines results.

When answering the question "Why aren't there more Ray Andersons [SD leaders]?" the most frequent responses referred to traits rarely used to describe SME owner-managers: greed; lack of ethics; fear of trying new things (Makower, 2012). While a few individuals start businesses with "get rich" aspirations, they are the exception. The majority of small business owners have other motivations such as disenchantment with "big business" philosophy; fulfilling an unmet market; improving their quality of life; pursuing a passion; and making a difference. Many wish to leave a legacy to their children: that is, passing a business down through the

generations, partnered with passing down a healthy, vibrant, naturally beautiful world in which the business can continue to prosper.

The structural advantages of their organizations (see <u>section 5.2.1</u>) make them ideal candidates to affect change quickly and deeply. To begin this process, SME leaders must critically examine the reason for their organization's existence. Simon Sinek calls this "starting with the 'why", suggesting that businesses flourish not only because they make great products and provide great services, but also because their staff and the market buys into their purpose (TED, 2009). The incorporation of sustainable practices and pursuit of sustainable opportunities are natural complements to SME owner-managers' motivations.

The challenges that SMEs face should not be marginalized, but strong leadership with a clear vision can mitigate these issues. Leadership is about vision, buy-in, empowerment, and, most of all, producing useful change. Leadership is not about attributes, it's about behaviour. Leadership sees possibilities rather than limitations; and asks "How can we?" instead of explaining "Why we can't". This is entrepreneurship in its truest form.

1.1 Collectively

"[I]t's less about trying to generate a whole new set of ideas and more about bringing all the good ideas together... and giving them the impetus they need to have an impact on a [larger] scale." - Sally Ride, Education Activist

While this roadmap has examined how different stakeholders, including SMEs themselves, can contribute to sustainable development within SMEs, almost all solutions involve some degree of collaboration. In a post-Rio+20 survey conducted by GlobeScan/SustainAbility (GS/SA) (2012), sustainability experts overwhelmingly viewed collaboration as "one of the few models that could catalyze solutions to the sustainable development challenges that we face at the speed and scale that we need". Collaboration spreads risk and allows access to expertise and diverse perspectives unavailable within a single organization (GS/SA, 2012; Millard, 2011). Each stakeholder group brings a different strength to the table; each organization within these groups a unique perspective:

- **Governments** the ability to set policy; and, create regulation and market instruments to support demand, and encourage innovation of and investment in sustainable technologies
- NGOs objectivity and credibility to develop and administer independent assessments and to support consumer confidence; and, provide guidance for implementing and maintaining best practices
- Large corporations global reach; and, a wealth of resources to affect significant change through scalability
- **SMEs** drivers of innovation; and, a strong moral compass to influence business decisions and a deep understanding of local issues
- **Consumers** consumers *are* market demand; they need to understand how to purchase, use and recycle responsibly; and, be willing and committed to doing so.

William McDonough points out that the word "competition" is derived from the Latin word "competere", meaning *strive together*. He used Olympic athletes as an analogy for how businesses could optimally approach sustainable development: "they get fit together...then compete" (TED, 2005). This approach complements GS/SA's survey findings: collaborate to address systemic issues (disengaged investors & citizens, lack of enabling policy, resource scarcity), but move forward independently to develop sustainable products and services (GS/SA, 2012).

While all will benefit through collaboration in moving toward a sustainable economy, SMEs will also realize benefits to their individual organizations' operations:

- As new policies are being developed, participation challenges specific to their businesses (and business size) can be considered—
- In truly partnering with multiple stakeholders, new opportunities for competitive advantage will become available-
- Knowledge transfer is facilitated with minimal cost
- Leveraging the resources and expertise of others reduces their business risk in developing new business models and introducing sustainable products. This also mitigates their primary challenge: resource poverty.

Conclusion

"The question becomes not 'growth or no growth' but 'what do you want to grow'?" -

William McDonough, co-author Cradle to Cradle

There is a compelling argument for engaging SMEs in the SD battle due to SMEs' aggregate impact, organizational structures, and the economic function that they provide. Most SMEs rely heavily on their local economies, are intimate with their customers, and their owner-managers have stronger motivations than profit maximization. While sustainable development is a global issue, it requires local solutions. In addition, historically, the majority of disruptive innovations have been introduced by SMEs, so they are optimal since new business models will be required to transition to a sustainable economic structure. Governments, NGOs, and large corporations can facilitate the inclusion of SMEs through implementing policies and programs that take into consideration the resource poverty and lack of codification within SMEs.

There is an equally compelling argument for engaging SMEs for embracing SD. In addition to their local economic reliance, most SMEs have an innate sense of responsibility to their customers and employees. This provides the incentive to participate in the betterment of their communities and, in adopting sustainable principles, they are better positioned than larger firms to satisfy these stakeholders. When SMEs view current business models and their products and services through the sustainability lens, creativity and innovation is nurtured, generating new opportunities for these organizations to thrive. To play their part, SME owner-managers must display leadership by developing their competencies and those of their organizations through awareness, knowledge, and collaboration within networks and alliances.

To slay the twenty-first century Goliaths, twenty-first century tactics are required. While it has been demonstrated the SME Davids are critical warriors, today's giants cannot be slain by a slingshot alone. No one stakeholder has all the answers; no one business has all the resources. A collaborative approach between all stakeholders will most successfully develop solutions at the speed and scale necessary.

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