International Journal of Excellence
in Public Sector Management

Sustainability Practices in Large Companies from the United States and European Union

M. Anaam Hashmi

Minnesota State University, Mankato, USA

ISSN 19938640

VOLUME 4 – Issue 2

June 2011

Abstract

The purpose of this study is to analyze the sustainability practices in large companies from the United States and European Union, two of the largest economic groups in the world and two major sources of greenhouse gas emissions. There is no generally accepted definition of sustainability practices or an exact definition of "sustainability." The definition is still evolving. The good news is that most large companies from the United States and Europe are trying to implement sustainability related practices in their organizations in accordance with their governing philosophy. Sustainability practices are closely related to productivity and quality as well. Out of the top 100 sustainable companies, twelve companies are based in the U.S., nine in Australia or Canada, and hardly any from Middle East. Most of the companies in the list are European companies and over 60 are based in European Union member countries.

Keywords: sustainability, corporate social responsibility, greenhouse gases, large companies

Introduction

Sustainability is broadly defined as the capacity to endure or last. Sustainability practices, as adopted by large global companies have grown out of the environmental movement and are now an important factor in strategic business decisions. Large American and global companies are requested to disclose their carbon emissions reduction practices from sustainability advocates and institutional investors around the world. Among large companies, several have volunteered to share their sustainability efforts with the Carbon Disclosure Project (CDP). This multi-national cooperative is a leading entity demanding global companies to disclose their sustainability policies. CDP periodically survey companies and publish these results. The survey results are available to all stakeholders including consumers, financial institutions, and governmental agencies. Publication of corporate carbon emissions reduction policies have encouraged large companies to take further steps and reduce their greenhouse gas (GHG) emissions (Carbon Disclosure Project [CDP], 2010). Another positive development is the involvement of global institutional investors in forcing large U.S. and global companies to disclose their current GHG emissions and future emissions reduction strategies.

Sustainability, the capacity to endure, is a global issue and one meriting concern from participants in global marketplaces, both regarding domestic environmental protection and policies and also the environmental protection and policies in place across the

world. This study analyzes the sustainability practices in large global companies with special emphasis on the United States (U.S.) and the European Union (E.U.), two of the largest economic groups in the world and two major sources of GHG emissions. Moreover, this study explores various sustainability definitions and identifies companies with more developed sustainability practices.

Literature Review

There is no single authoritative definition of sustainability or sustainable enterprise. Some of the early work on modern environmentalism began with Carson's controversial publication of Silent Spring in 1962, highlighted the dangers of indiscriminate use of pesticides in the U.S. and around the world and helped started an era of environmental regulations and socially responsible environmental policies. The idea of social responsibility and environmental ethics issues goes back to Carson's study. The Brundtland thesis in 1987 introduced the de facto standard definition of sustainability: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Tietenberg & Lewis, 2002). According to Hart (1997), "The road to sustainable enterprise" started in the 1950s with pollution denial, which shifted to end-of-pipe regulation in the 1970s, to "greening" in the 1980s, and beyond greening by the 1990s. Each of these key studies contributed to the development of a growing movement of environmental concern, preparing the groundwork for modern sustainability theories and their definitions.

According to the Sustainable Enterprise Model, a sustainable enterprise is "an enterprise that promotes sustainable living through sustainable production of goods and services, to provide solutions for fulfilling elementary needs to improve the lives of people now and in the future with the least possible environmental impact and the highest possible economic and social yield" (Ing, 2009). Basically, a sustainable enterprise is an initiative to provide for the present without limiting resources or the ability of future generations to provide and survive indefinitely. According to a recent report from the American Management Association (AMA), "The primary goal of sustainability is ensuring that whole systems remain healthy so that people—as individuals, societies, and organizations—improve their overall chances of well being" (American Management Association {AMA}, 2007).

Building upon foundations laid by Carson (1962), contemporary sustainability experts have further honed their understanding of the topic and identified a connection between sustainability and profitability. Hawken (1993) not only identified sustainability problems but also discussed business-related solutions, which he asserted could transform both companies and the economy, and possibly improve profitability. McDonough and Braungart (2002) laid out a strong argument in support of vital interrelationship of society's need and resource availability. They argued efficient use of resources is the key to enjoying these

resources for years to come. Elkington (1998) introduced the widely used term "triple bottom line" (TBL) to define sustainability referring to the economic bottom line (profit), the social bottom line (people), and the environmental bottom line (planet). Esty (2006) and Savitz (2006) emphasized the relationships between environmental and financial sustainability, asserting companies could not be financially sustainable without being environmentally conscious. Esty (2006) and Savitz (2006) also argued that environmentally friendly use of materials and energy would ensure financial sustainability of a business and that this is the only path of long-term viability for a company. Each of these experts linked sustainability practices with sustainable profitability and survival.

The United Nations sponsored the Rio Earth Summit of 1992, which not only paved the way for the Kyoto Protocol mandating greenhouse gases reduction for signatory countries, but emphasized sustainability related issues facing businesses and countries. One of the important meeting outcomes that helped the cause of sustainability was the formation of the International Chamber of Commerce Business Charter for Sustainable Development and Changing Course (Schmidheiny, 1992).

The most crucial theme or idea that ties into corporate sustainability is corporate social responsibility (CSR). Corporate social responsibility involves intentionally including public interests in corporate decision-making and adhering to the idea of having a triple bottom line. This term, triple bottom line (TBL), cannot be defined without sustainability. TBL refers to an economic bottom line (profit), a social bottom line (people), and an environmental bottom line (planet). To define sustainability in this way is to say that sustainability happens at each of these three levels, sustainability of profit, sustainability of people, and sustainability of the planet. Sustainability of profit is the ability of a business to endure and make a profit. Sustainability of people is the ability of people to survive and reproduce indefinitely. Sustainability of the planet means taking care of the environment so the planet can sustain life—the environment and ecosystems are not destroyed. Each of these three concepts or bottom lines goes hand-in-hand with the others, and these three needs to be looked after simultaneously. When sustainable enterprises measure business success using the TBL metrics of economic bottom line, social bottom line, and environmental bottom line, the sustainable enterprise must be involved in the following activities (Organization Innovation, 2008):

- continuous refreshment of workforce talent
- deliberate alleviation of societal ailments
- responsible use of environmental resources.

Strandberg (2002) catagorized companies based on their willingness to integrate corporate social responsibility in their decisions. He defined these companies as CSR Lite, CSR Compliant, CSR Strategic, CSR Integrated, and Deep CSR. Companies within CSR Lite and CSR Compliant categories are half-heartedly adopting sustainability measures, while companies falling in the

categories of CSR Strategic, CSR Integrated, and Deep CSR are more aggressive in their pursuit of a sustainable path. Companies can adopt one of the above-mentioned models as it suits their governing philosophy as well as practices within their industry. Biemiller (2009) advocated that sustainability efforts should not be costly and also suggested American college campuses adopt sustainability measures to save money in the long run. Hoffman (2004) advised companies deciding to formulate a sustainable business model to follow specific steps:

1. Calculate the energy efficiency of the company and explore ways to improve it.
2. Calculate the company's carbon dioxide (CO2) and other GHG emissions.
3. Explore the carbon trading mechanisms.
4. Conduct a cost benefit analysis of CO2 and GHG emissions reduction by employing new processes and investigating the cost of carbon credits.
5. Research new energy efficient technologies, particularly for future projects. The list includes solar power, wind power, hydro power, and utilizing bio-fuels.
6. Assess GHG liability of new capital assets.
7. Formulate internal auditing systems to comply with GHG regulations and forecast future GHG emissions.

There are other paradigms associated with sustainability, such as the Five Capitals Model and the 3 E's Model. The Five Capitals Model is very similar to TBL but includes five elements: natural, social, human, manufactured, and financial. The 3 E's Model includes ecology/environment, economy/employment, and equity/equality; there is also possibly a fourth "E"—education (AMA, 2007).

Tietenberg and Lewis (2010) summarized three alternative definitions of sustainable allocation: weak sustainability, strong sustainability, and environmental sustainability. According to their weak sustainability definition, previous generations should not consume more resources if future generations are prevented from achieving similar levels of life style. Their strong sustainability definition focuses on avoiding depletion of natural resources. Environmental sustainability is somewhat more comprehensive and emphasizes maintaining the physical flow of individual resources to satisfy future growth needs as well.

There is some level of opposition to governmental mandate of sustainability related laws. This opposition is primarily based on the ideology that governments should not intervene in a free-market system, and on emphasizing profit as more important than protecting the environment for future generations. The opponents fail to appreciate long-term benefits of sustainability practices. Another type of opposition comes from within an organization, wherein top management may not be convinced about the need for sustainability and/or the promise of profit increases after implementing sustainability practices (Blackburn, 2007).

An in-depth survey was conducted in 2007 that included 1,365 usable responses from large global companies. The survey and

subsequent discussion results were compiled by the American Management Association (AMA) and Human Resource Institute (HRI) (AMA, 2007). Respondents were asked to rank their opinions on a five-point Likert scale. An encouraging finding was that companies implementing sustainability practices were also more hopeful for their company's overall performance. Furthermore, high performing companies reported seeing "measurable benefits from sustainability initiatives" (mean score of 3.19). Low-performing companies also reported measurable benefits from sustainability initiatives but to a lesser extent than high performing companies (mean score of 2.56).

AMA/HRI summarized the global survey results and one of the key findings is tabulated in Table 1. The respondents were asked to rank the importance of several potential barriers to sustainability practices in an organization. The top three important hindrances to sustainability were "lack of demand from consumers and customers," "lack of demand from managers and employees," and "lack of awareness and understanding." These findings highlight the importance of educating consumers, customers, and managers for successful implementation of sustainability practices. There are many misconceptions that have diluted the importance of sustainability in the eyes of some stakeholders (AMA, 2007).

Importance Rank	Potential Barriers to Sustainability	Mean Score
1	Lack of demand from consumers and customers	3.13
2	Lack of demand from managers and employees	3.13
3	Lack of awareness and understanding	3.11
4	Lack of standardized metrics or performance benchmarks	3.10
5	Lack of specific ideas on what to do and when to do it	3.08
6	Lack of demand from shareholders and investors	3.04
7	Lack of demand from suppliers	2.99
8	Unclear or weak business case	2.97
9	Lack of demand from the community	2.93
10	Lack of support from senior leaders	2.92
11	General risk aversion	2.80
12	Fear of competitors taking advantage of us	2.38

Table 1: Importance of Potential Barriers to Sustainability.*
*Mean responses on a 5-point Likert scale, where 1 = not at all and 5 = to a very great extent.

Sustainability Practices in the United States and European Union

There are many similarities and differences between sustainability policies in the United States and in the European Union (E.U.). In general one can say that efforts to curtail overuse of resources and reduce depletion of resources are aimed at the same goal, but the major differences lie in the path taken to reach that goal by the U.S. and E.U. The Bush administration was opposed to the GHG emissions limits proposed at the Kyoto Protocol, while the E.U. imposed GHG reduction obligations on its industries and set up a carbon market to facilitate cost-effective implementation of these requirements (Esty, 2007).

Both the U.S. and E.U. are concerned with sustainability issues but differ in the policies employed to achieve sustainable results. The United States' energy and climate policies are framed based on ensuring economic prosperity and security while in Europe, it is framed in an environmental context, says Christian Egenhofer, senior climate and energy policy researcher at the Centre for European Policy Studies (CEPS) in Brussels (Euractiv, 2007). One reason the U.S. and E.U. have different takes on how to change to be more sustainable and environmentally friendly is that they use different resource types to generate energy to their communities. The E.U. gets a majority of its energy from natural gas and has been phasing out the use of coal since the 1960's. In the U.S. roughly half the country's energy comes from coal. Because of the difference in energy sources, the United States is researching low carbon technologies instead of supporting the Kyoto Protocol's GHG reductions mandate, which the European Union has supported (Euractiv, 2007).

There is a positive change in American and European utility companies' attitudes toward sustainability and renewable energy. In 2008 and 2009, American and European companies added more power capacity from renewable sources (hydro, wind, solar, etc.) than from traditional fossil fuel sources. Renewable energy accounted for 60 % of newly installed capacity in Europe and more than 50 % in the U.S. in 2009 (United Nations Environmental Program [UNEP], 2010). In 2009, countries added nearly 80 GW of renewable power capacity across the globe, including 31 GW of hydro and 48 GW of non-hydro capacity. This combined renewable energy output is very close to the 83 GW of fossil-fuel based capacity installed in the same year. If this positive trend continues, 2011 could be the first year during which new power generation capacity added in low carbon power exceeds that added in the traditional fossil fuel based capacity (UNEP, 2010).

Sustainability Practices in the United States

Within the United States numerous organizations and agencies mandate, regulate, and enforce environmental policies. Key among these agencies is the Environmental Protection Agency (EPA), founded in 1970. The EPA was first known as the National Environmental Protection Agency (NEPA), which was founded in 1969 and whose purpose was to "foster and promote the general welfare, to create and maintain conditions under which man and

nature can exist in productive harmony and fulfill the social, economic and other requirements of present and future generations" (Environmental Protection Agency [EPA], 2010a). On the national policy level, the concept of sustainable development was described in a 1981 White House Council on Environmental Quality report. The report clearly defines the government's sustainability goal, noting "The key concept here is sustainable development. If economic development is to be successful over the long term, it must proceed in a way that protects the natural resource base of developing countries" (EPA, 2010a). Some of the main priorities of the EPA are taking action on climate change, improve air quality, protecting America's water, and working for environmental justice (EPA, 2010a).

The President's Council on Sustainable Development (PCSD) was established by President Clinton on the anniversary of the Earth Summit in June 1993. This Council was established in order to help create U.S. policies that would encourage economic growth, job creation, and environmental protection. In President Clinton's address to the nation he said, "Every nation faces a challenge to identify and implement policies that will meet the needs of the present without compromising the future. America will meet that challenge with the help of this Council and the ideas and experience that its members bring to this important task" (EPA, 2010b). The Council consisted of 25 members and built many new partnerships among representatives from industry; government; and environmental, labor, and civil rights organizations so they could develop new approaches to integrate economic and environmental policies (EPA, 2010b).

American consumers are demanding that companies provide sustainable products. In some industries carbon labels are also becoming common. In 2008 alone, American consumers doubled their spending on sustainable products and services to an estimated $500 billion, according to a survey that polled more than a 1,000 people conducted by Penn Schoen Berland Associates, a market research firm that studies the green economy (Bhanoo, 2010).
IBM Global Business Services defines corporate social responsibility (CSR) as the way companies manage their businesses to produce an overall positive impact on society through economic, environmental, and social actions. IBM Global Business Services surveyed U.S. companies and concluded business executives consider CSR as a sustainable growth strategy because not only will CSR benefit society but it will also provide benefits for businesses. According to the survey, about two-thirds of companies are focusing on CSR activities to create new revenue streams, and over half believe that their CSR activities have made them more competitive over their top competitors (Pohle & Hittner, 2008).

Wal-Mart, after surveying more than 100,000 suppliers worldwide, has embarked on a yearlong effort to tag every product it sells with information about its production and life cycle (Bhanoo, 2010). Wal-Mart also attributed more than $100 million of its 2009 revenue to a decision to switch to a recyclable variety of cardboard in shipments

to its 4,300-plus U.S. stores. Now the mega-retailer sells the cardboard to a recycler rather than paying to ship the waste to a landfill (Bhanoo, 2010).

General Electric (GE) has been a strong presence in the American business sector for many years, and the company received historical environmental criticism regarding the way it was disposing of polychlorinated biphenyls (PCBs)—dumping them in the Hudson River before this was banned in 1977 (Hart & Milstein, 2007). In May 2005, GE launched a new initiative called Ecomagination aimed at helping resolve serious environmental problems by commercializing new technologies that are more efficient and environmentally friendly, including wind power, solar energy, hybrid locomotives, lighter and stronger materials, energy-efficient lights, and water purification technologies. The Ecomagination initiative also increased GE's research and development spending, in hopes of becoming more innovative and better able to implement efficient and environmentally friendly products, technologies, and ideas.
In summer 2010, GE expanded its efforts by launching a $200 million contest to attract entrepreneurs working on sustainability related ideas and designs. The initiative is called GE Ecomagination Challenge: Powering the Grid, and it will invest $200 million in innovative business models, technologies, and processes that will bring clean, usable energy to market. The contest is focused on renewable energy, power grid efficiency, and eco homes/ecobuildings (General Electric, 2010). In 2010, GE was ranked the most sustainable company in the world because it invested heavily in Ecomagination and related sustainable policies (Coster, 2010).
There are incentives for U.S. citizens to go green, many of which are monetary in nature, such as rebates, tax credits, and coupons when the consumers purchase Energy Star appliances or a new type of light bulb. Energy Star is one of the most common programs supporting energy efficient appliances and construction. Energy Star gives a rating to qualifying appliances as to whether or not they are efficient. There are Energy Star washing machines, clothes dryers, refrigerators, dishwashers, and many more major appliances. Consumers can also get rebates, tax credits, and deductions if they install energy efficient windows, doors, and insulation. These incentives are why many companies are looking into new ways to adopt sustainability practices and entice consumer to purchase their products.

The federal government also offers incentives for purchasing vehicles considered to be energy efficient, including either low gas mileage or hybrid cars. American and global automobile companies are looking into new technologies to lower their carbon footprints and lure American consumers. In 2009, the U.S. government announced the Cash for Clunkers program, through which an older car with high gas mileage was allowed to be traded to a new car dealer, possibly for greater value than it was worth. There were 690,114 fuel-inefficient cars traded in during this program (Reed, 2009).

Sustainability Practices in the European Union

The European Union (E.U.) is an economic bloc consisting of 27 countries at varying stages of economic development. There is a bond between the different countries within the union, not only including a common currency, but also shared values and policies for sustainability and corporate social responsibility. In Europe, as well as rest of the world, the sustainability movement is led by large companies. European countries have some of the highest environmental standards in the world, and the E.U. is also the key player in implementing the Kyoto Protocol's mandatory reduction of GHG emissions.

In 1996 The European Business Network for Social Cohesion was formed, which would be renamed CSR Europe in 2000. As of 2010, the membership list includes 75 multinational companies and 27 national organizations. CSR Europe provides European companies a forum to share their sustainability related ideas and practices. In addition, CSR provides policy directions to national governments and the E.U. (CSR Europe, 2010).

In 2000, the Lisbon Strategy for 2010 was announced with an intention to "make Europe the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion by 2010" (CSR Europe, 2010). As a way to set the E.U. apart and implement the Lisbon Strategy, a European definition for CSR was created in 2002, which defined CSR as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with stakeholders on a voluntary basis" (CSR Europe, 2010).

In 2007 the European Commission, the executive body of the European Union, adopted a European Agenda for Culture in a Globalizing World. The European Agenda for Culture is organized around three main objectives: promoting cultural diversity and intercultural dialogue, promoting culture as a catalyst for creativity in the framework of the Lisbon Strategy for growth and jobs, and promoting culture as a vital element in the E.U.'s external relations (Visser & Tolhurst, 2010).

European Aeronautics Defense and Space (EADS) is an alliance of European companies committed to sustainability and development in the aerospace sector. EADS was formed in 1999 and as of 2009, there were 120,000 people working for EADS partner companies. Airbus is a dominant company and believes sustainability should be an integral component of their global manufacturing strategy because all of their products have over 30 years of life expectancy (EADS, 2010). Airbus has implemented a program called Airbus Corporate Answer to Disseminate Environmental Management System (ACADEMY), designed to improve environmental performance of the aeronautical sector and its products.

Sustainability Indexes and Rankings

Consumers and companies have been trying for several years to measure sustainability related efforts in large U.S. and global

companies because several funding institutions and consumers wish to reward companies that seriously invest in is sustainability practices. At the same time, consumers are also interested to find out sustainability practices of companies to make an informed decision; that is why, large global corporations often uses sustainability ranking as a marketing tool. There is no single index available, but several attempts have been made since 2005 to quantify sustainability practices and rank these large companies.

Wal-Mart Company has introduced a sustainability index in an attempt to provide detailed sustainability related information to its customers. Customers have an opportunity to understand sustainability practices throughout a product's life cycle. The index is being introduced in three phases: supplier sustainability assessment, life-cycle analysis database, and a simple tool for customers (Wal-Mart, 2010).

The Environmental Performance Index (EPI) ranks countries on 25 performance indicators tracked across 10 policy categories covering both environmental public health and ecosystem vitality. EPI was initiated in 2005 by a different name (Environmental Sustainability Index), but later the index was modified to its present form. The 2010 ranking includes 163 countries. Iceland, Switzerland, and Costa Rica are the top three Ranked countries in 2010. The U.S. ranked 61, well below nearly all member countries from the European Union (Yale Center for Environmental Law & Policy, 2010).

For more than a year, Newsweek magazine worked with leading environmental researchers to rank the 500 largest U.S. companies based on their actual environmental performance, policies, and reputation. It was a huge challenge to rank companies based on sustainability, largely because comparing environmental performance across industries (power generation or service industries) is difficult (McGinn, 2009). More than half of these large companies' overall Green Scores in Newsweek's ranking are based on their environmental policies and reputation, as well as industry-neutral metrics that help even the playing field for companies in carbon-intensive businesses. To overcome less-than-expected voluntary corporate emissions data, Newsweek used data from Trucost, the global environmental data company, which has created a widely acclaimed system for estimating and projecting environmental data (McGinn, 2009).

Newsweek came out with their Top 100 Green Companies in 2009, and Table 2 summarizes their top ten socially responsible companies in the U.S. This is one of the most comprehensive rankings of large American companies. U.S. companies can find out their detailed rankings and use these information in future operational decisions. At the same time, consumers and financial institutions can also tailor their buying behavior and make financing decisions based on the social responsibility ranking scores.

Rank	Company	Industry	Overall Green	Envir. Impact	Green Policies/ Perform.	Reputation Survey
1	Hewlett-Packard "Strong programs to reduce GHG and first one to report GHG data in the industry"	Technology	100.00	64.80	97.90	88.44
2	Dell "Forth user of renewable energy"	Technology	98.87	67.70	100.00	70.80
3	Johnson & Johnson "Its commitment to climate change is rare for its peer group"	Pharma-ceuticals	98.56	56.70	98.17	75.88
4	Intel "Largest corporate purchaser of renewable energy - 46% of total"	Technology	95.12	46.70	87.87	81.86
5	IBM "Had formal environmental policies since 1971"	Technology	94.08	76.90	84.20	77.56
6	State Street "Leader in financial services industry"	Financial Services	93.62	95.00	84.39	70.69
7	Nike "Leads its industry in environmental management of suppliers"	Consumer Products	93.28	77.10	78.31	89.90
8	Bristol-Myers Squibb "Announced goal to reduce direct/indirect emissions by 10% by 2010, from 2001 levels"	Pharma-ceuticals	92.62	27.80	88.52	64.73
9	Applied Materials "Semiconductor manufacturer designs its products to use less water/energy/GHGs"	Technology	91.79	50.90	89.51	44.51
10	Starbucks "In 2008, announced to source products in environmentally and socially responsible ways"	Leisure/ Food	91.63	30.50	82.01	75.42

Table 2: Social Responsibility Score and Ranking of Large U.S. Companies.
Source: McGinn 2009.

Another attempt to quantify and rank U.S and global companies was made by the Corporate Knights Research Group, a Toronto based Media Company, which collected data on 3,000 global public companies and evaluated them according to 11 different metrics. As a result of this research, the first-ever ranking of the world's 100 most

sustainable companies was made available by Forbes magazine in January 2010 (Coster, 2010). After preliminary screening, the sample was reduced from 3,000 to 300 global companies. These 300 global companies were analyzed by Corporate Knights and Inflection Point Capital Management to be assessed against 10 equally-weighted environment, social, and governance key performance indicators (KPIs) and a transparency indicator. All companies were scored relative to their industry peers. Each company received a score of 0 to 1 per KPI and a score of 0 to 1 on the transparency indicator. The sum of all eleven scores was normalized to a scale of 0 to 100 and the companies were ranked on the basis of this score. After thorough analysis the research team came up with the short-list of the Global 100 Most Sustainable Companies in the World (Coster, 2010).

Out of the top 100 sustainable companies, twelve companies are based in the U.S. and nine in Australia or Canada. Most of the companies in the list are European companies and over 60 are based in European Union member countries. European governments have embarked upon a series of measures including the ratification of the Kyoto Protocol, and measures have forced European companies to be efficient with their resources. European companies also perform well in the category of CEO-to-average-worker pay, because they don't give out huge stock bonuses. The top ten most sustainable companies in the world, according to Forbes magazine are listed in Table 3. There are only two American companies among the 10 most sustainable global companies.

Global Rank	Company	Country	Industry
1	General Electric	U.S.	Capital Goods
2	PG&E Corporation	U.S.	Utilities
3	Tnt Nv	Netherlands	Transportation
4	H & M Hennes & Mauritz Ab	Sweden	Retailing
5	Nokia Corporation	Finland	Technology Hardware
6	Siemens Ag	Germany	Capital Goods
7	Unilever Plc	U.K.	Food Beverage & Tobacco
8	Vodafone Group Plc	U.K.	Telecommunication
9	Smiths Group Plc	U.K.	Capital Goods
10	Geberit	Switzerland	Capital Goods

Table 3: Most Sustainable Global Companies Ranking in 2009.
Source: Coster 2007.

The ten most sustainable American companies are sorted out from the global 100 companies list. Top ten rankings of American companies and their global ranking as provided by Forbes, are presented in Table 4 (Coster, 2007). The purpose to sort out top Ten American Companies from the global 100 companies is to compare Forbes ranking with the ranking provided by Newsweek magazine.

U.S. Rank	Global Rank	Company	Industry
1	1	General Electric	Capital Goods
2	2	PG & E Corp.	Utilities
3	13	Procter & Gamble Company	Household & Personal Products
4	21	Prologis	Real Estate
5	23	Johnson Controls Inc.	Automobiles & Components
6	36	Agilent Technologies	Technology Hardware & Equipment
7	38	Coca Cola Company	Food Beverage & Tobacco
8	39	Intel Corp.	Semiconductors
9	48	Starbucks Corp.	Consumer Services
10	69	Baxter International Inc.	Health Care Equipment & Service

Table 4: Most Sustainable U.S. Companies Ranking in 2009.
Source: Coster 2007.

In general, large U.S. companies did not receive high global sustainability rankings. For example, the tenth ranked American company, Baxter International Inc., is ranked sixty-ninth in the world. A cursory analysis of large U.S. companies presented in Tables 1 and 3 reveal that only Starbucks Corp. was listed in both rankings. The other nine companies in both tables are different. The discrepancy is due to the fact that each ranking is trying to measure sustainability and/or social responsibility according to a different set of criteria. Therefore, consumers and financial institutions must review most of the available rankings before making a decision. It is a good idea to study research methodology of the sustainability ranking agencies. Similarly the macro sustainability indexes mentioned in this report are measuring different data sets and/or assigning different weights to the variables, which is why macro sustainability indexes may also offer somewhat different index values.

Conclusions

There is no consensus on precisely what constitutes sustainability practices or an exact definition of “sustainability” because the topic has been determined by focusing on a wide spectrum of issues ranging from

business ethics to natural resource conservation. The definition is still evolving. The good news is that most large global companies are trying to implement sustainability related practices in their organizations in accordance with their governing philosophy, industry norms, and national policies. The motivation behind sustainability practices is long-term profit maximization, regulatory compliance, as well as true altruism. Moreover, national governments, consumers, and financial institutions are often forcing these global companies to be more transparent about their sustainability policies and practices.

Large companies from the European Union are leaders in adopting sustainability practices, leaving behind non-European companies. One of the reasons is European governments' early recognition of environmental and sustainability issues. There was opposition to environmental issues and sustainability in the U.S. based on a political ideology supporting companies' right to maximize profit without government intervention. Out of the top 100 sustainable companies in 2009, about 60 companies were from European Union countries, twelve were based in the U.S., nine in Australia or Canada, five from Japan, and hardly any company from Middle East (Coster, 2010).

A number of sustainability indexes and rankings are available to help consumers, governments, and financial institutions to better understand levels of sustainability practices in large global companies and various geographical regions. The Dow Jones Sustainability Index has come up with several dozen indexes focusing on different industries and regions. Two different rankings of large American companies are included in this study, but the rankings are very different because both organizations (Forbes and News Week) used different criteria and measured different aspects of sustainability.

References

American Management Association. (2007). Creating a Sustainable Future: A Current Study of Current Trends and Possibilities 2007-2017. Retrieved from http://view.fdu.edu/files/amawebcastreport.pdf

Bhanoo, S. (2010, June 11). Products that are earth-and-profit friendly. The New York Times. Retrieved from http://www.nytimes.com/2010/06/12/business/energy-environment/ 12sustain.html

Biemiller, L. (2009, February 3). Are sustainability's costs prohibitive? No. The Chronicles of Higher Education. Retrieved from http://chronicle.com/blogPost/Steve-Bellona- Are/5408/

Blackburn,W. R. (2007). The Sustainability Handbook: The Complete Management Guide to Achieving Social, Academic and Environmental Responsibility. London: Earthscan.

Carbon Disclosure Project. 2010. Carbon disclosure project – global climate change reporting system. Retrieved from https://www.cdproject.net/en-US/Pages/HomePage.aspx

Carson, R. (1962). Silent Spring. New York: Houghton Mifflin.

Coster, H. (2010, January). Ranking the world's most sustainable companies. Forbes. Retrieved from http://www.forbes.com/2010/01/26/most-sustainable-companies-leadership-citizenship-100.html

CSR Europe. (2010). CSR Europe: The European business network for CSR: About us.

Elkington, J. (1998). Cannibals with Forks: The Triple Bottom Line of 21st Century Business. Philadelphia: New Society.

Environmental Protection Agency. (2010a). the United States Environmental Protection Agency. Retrieved from http://www.epa.gov/

Environmental Protection Agency. (2010b) History of sustainability. United States Environmental Protection Agency. Retrieved from http://yosemite.epa.gov/r10/oi.nsf/Sustainability/History

Esty, D. C. (2007, March 2). When being green puts you in the black. The Washington Post. Retrieved from http://www.washingtonpost.com/wpdyn/content/article/2007/03/02/AR2007030202044.html

Esty, D.C., & Winston, A.S. (2006). Green to Gold. Connecticut, New Haven Press.

EurActiv: European Union Information Website (Europe and EU). (2005). Heroes vs. villains? - EU and US policies on climate change. (2007). Retrieved from http://www.euractiv.com/en/sustainability/heroes-vs-villains-eu-us-policies-climate-change/article-140082

European Aeronautic Defense and Space Company. (2010). EADS Corporate Responsibility & Sustainability Report 2009. Paris: EADS. Retrieved from http://www.airbus.com/fileadmin/media_gallery/files/brochures_publications/csr-report-eads-2010.pdf

General Electric Company. (2010). Ecomagination challenge: Powering the grid. Ecomagination. Retrieved from http://challenge.ecomagination.com/ct/a.bix?c=ideas

Hart, Stuart L. (1997). Beyond Greening: Strategies for a Sustainable World. Harvard Business Review. January-February 1997, 76 (1).

Hawken, P. (1993). The Ecology of Commerce. New York: HarperCollins.

Hoffman, A. (2004). Winning the greenhouse gas game. Harvard Business Review. 82(4), 20–21.

IBM Corporation. (2009). leading a sustainable enterprise: Leveraging insight and information to act. IBM. Retrieved from http://www-935.ibm.com/services/us/gbs/bus/html/csr-study-2009.html

Ing, C. (2009). Sustainable Enterprise Model. May 26, 2009. Retrieved from http://www.centreforsmart.co.uk/smp/sustain_model.php

McDonough, W., & Braungart, M. (2002). Cradle to Cradle. New York: North Point Press.

McGinn, D. (2009, September 28). The greenest big companies in America. Newsweek. Retrieved from http://www.newsweek.com/id/215577

Organization Innovation, LLC. (2008). Cultivating sustainable enterprise business culture. OrgOvation. Retrieved from

http://www.orgovation.com/cultivating-business-culture.htm

Pohle, G., & Hittner, J. (2008). Attaining Sustainable Growth through Corporate Social Responsibility. Somers, NY: IBM Institute for Business Value. Retrieved from http://www-935.ibm.com/services/us/gbs/bus/pdf/gbe03019-usen-02.pdf

Reed, P. (2009, August 29). Cash for clunkers car buying stimulus program. Edmunds.com. Retrieved from http://www.edmunds.com/cash-for-clunkers/stimulus-bill.html

Savitz, A., & Weber, K. (2006). The Triple Bottom Line. San Francisco: Jossey-Bass.

Schmidheiny, S., & the Business Council for Sustainable Development. (1992). Changing Course: A Global Business Perspective on Development and Environment. Cambridge: The MIT Press.

Strandberg, C. (2002). The Future of Corporate Social Responsibility. Vancouver: VanCity Credit Union. Retrieved from http://www.corostrandberg.com/pdfs/Future_of_CSR.pdf

Tietenberg, T., & Lewis, L. (2010). Environmental Economics & Policy (Sixth Ed.). Pearson Education, Inc.

United Nations Environment Program. (2010). Global Trends in Green Energy 2009: New Power Capacity from Renewable Sources Tops Fossil Fuels Again in US, Europe. Paris, Renewable Energy Policy Network for the 21st Century. Retrieved from http://sefi.unep.org/fileadmin/media/sefi/docs/publications/FINAL_UNEP-REN21_Press_Release_post_embargo.pdf

Visser, W., & Tolhurst, N. (2010). The World Guide to CSR. London: Greenleaf Publishing.

Wal-Mart. 2010. Sustainability index. WalMartstores.com. Retrieved from http://walmartstores.com/Sustainability/9292.aspx

Yale Center for Environmental Law & Policy. (2010). Environmental Performance Index 2010. Yale University. Retrieved from http://epi.yale.edu/