INROADS

Leadership Institute for Sustainability

RESOURCE GUIDE



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Definitions of Sustainability

Corporate Sustainability is a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental, and social developments. Corporate sustainability leaders achieve long-term shareholder value by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability costs and risks.

-Dow Jones Sustainability World Index

Sustainability provides a business strategy that offers opportunities to decrease costs, increase revenues, and drive innovation while simultaneously preserving natural resources, improving global stability, and enhancing the quality of life for all species on the planet.

-Lindsay James, Manager of Sustainable Strategy, InterFaceFLOR

A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

-Aldo Leopold, Sand County Almanac, 1949

Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations.

-US Environmental Protection Agency, 2022

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

-Our Common Future (a.k.a. Brundtland Report), 1987

Actions of an organization to take responsibility for the impacts of its activities on society and the environment, where these actions:

- are consistent with the interests of society and sustainable development;
- are based on ethical behavior, compliance with applicable law, and intergovernmental instruments; and
- are integrated into the ongoing activities of an organization.

-ISO's definition of Social Responsibility, 2006



National Organizations

Association for the Advancement of Sustainability in Higher Education

AASHE's mission is to empower higher education to lead the sustainability transformation. We do this by providing resources, professional development, and a network of support to enable institutions of higher education to model and advance sustainability in everything they do, from governance and operations to education and research.

www.aashe.org

B Lab

B Lab is a nonprofit that certifies corporations called Certified B Corporations. They also work with organizations in different states to pass legislation creating a new business classification called Benefit Corporations.

www.bcorporation.net

Biomimicry 3.8

Biomimicry 3.8 extends and expands upon our heritage of bringing together scientists, engineers, architects, and other innovators to create sustainable technologies and business practices. We also signal an integration of our premier organizations, the Biomimicry Guild and The Biomimicry Institute, into a single identity with the financial and managerial gusto to take biomimicry mainstream, make it global, and let it localize in thousands of communities worldwide.

biomimicry.net

Bioneers

Bioneers inspires a shift to live on Earth in ways that honor the web of life, each other, and future generations. Bioneers has two keystone goals to help make this shift successfully: Connect people with solutions by popularizing breakthrough ideas and practices, and to grow social capital by catalyzing, connecting, and strengthening strategic networks, including bioregional and community-based alliances.

www.bioneers.org



BSR works with its global network of nearly 300 member companies to build a just and sustainable world. From its offices in Asia, Europe, and North and South America, BSR develops sustainable business strategies and solutions through consulting, research, and cross sector collaboration.

www.bsr.org

Center for Climate and Energy Solutions (C2ES)

C2ES is the successor to the Pew Center on Global Climate Change, long recognized in the United States and abroad as an influential and pragmatic voice on climate issues. C2ES provides timely, impartial information and analysis on scientific, economic, technological and policy dimensions of climate and energy challenges and brings together business, the environmental community, other stakeholders, and policy makers to achieve common understanding and consensus solutions and pragmatic, effective policies at state, national and international levels.

www.c2es.org

Ceres

Ceres is an advocate for sustainability leadership. Ceres mobilizes a powerful network of investors, companies, and public interest groups to accelerate and expand the adoption of sustainable business practices and solutions to build a healthy global economy.

www.ceres.org

Common Future

We know that the ideas, models, and solutions that can restore community wealth already exist, they just require attention and investment. We believe our future is a shared financial, social, environmental contract, one we want to build together. As a national intermediary, we hold relationships across our network that help us identify emerging needs and trends, and direct capital where it can be best put to work. Our initiatives serve three main purposes: 1) Growing a network of leaders who are building community wealth, 2) Investing in this network by deploying capital towards ideas that challenge our thinking, social norms, and systems, and 3) Shifting the capital ecosystem by encouraging wealth-holders to deploy capital in ways that shift power and build equity.

www.commonfuture.co

Conservation International (CI)

Building upon a strong foundation of science, partnership and field demonstration, CI empowers societies to care for nature responsibly and sustainably, our global biodiversity, for the well-being of humanity.

www.conservation.org

Environmental Defense Fund

Environmental Defense Fund's mission is to preserve the natural systems on which all life depends. Guided by science, we design and transform markets to bring lasting solutions to the most serious environmental problems.

www.edf.org

Environmental Protection Agency (EPA)

The mission of EPA is to protect human health and the environment through developing and enforcing regulations, giving grants to programs, non-profits, educational institutions, and others, study issues, sponsor partnerships with businesses, nonprofit organizations, and state and local governments, teach people about the environment, and publish information.

www.epa.gov

Forest Stewardship Council (FSC)

FSC shall promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests.

www.fsc.org

Global Environmental Management Initiative (GEMI)

GEMI is a global leader in developing insights and creating environmental sustainability solutions for business. For 20+ years, GEMI has captured the vision and experience of global corporate environmental, health and safety (EHS) and sustainability leaders from diverse business sectors through the development of a wide range of more than 30 publicly available, solutionsbased tools designed to help companies improve the environment, their operations and add business value.

www.gemi.org

Green Seal

Green Seal is a non-profit organization that uses science-based programs to empower consumers, purchasers, and companies to create a more sustainable world. We develop life cycle-based sustainability standards for products, services, and companies and offer third-party certification for those that meet the criteria in the standard.

www.greenseal.org

Natural Capitalism Solutions

Natural Capitalism Solutions' mission is to educate senior decision-makers in business, government, and civil society about the principles of sustainability. Natural Capitalism Solutions shows how to restore and further enhance natural and human capital while increasing prosperity and quality of life. In partnership with leading thinkers and groups, Natural Capitalism Solutions creates innovative, practical tools and implementation strategies for companies, communities, and countries.

natcapsolutions.org

Natural Resource Defense Council (NRDC)

NRDC uses law, science and the support of 1.3 million members and online activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.

www.nrdc.org



Net Impact

Net Impact's mission is to mobilize a new generation to use their careers to drive transformational change in their workplaces and the world.

netimpact.org

Rocky Mountain Institute (RMI)

RMI's style is non-adversarial and transideological, emphasizing integrative design, advanced technologies, and mindful markets. Our strategic focus, executed through specific initiatives designed to take our work rapidly to scale, is to map and drive the transition from coal and oil to efficiency and renewables. We work extensively with the private sector, as well as with civil society and government, to create abundance by design and to apply the framework of natural capitalism.

www.rmi.org

Sierra Club

Since 1892, the Sierra Club has been working to protect communities, wild places, and the planet itself. We are the largest and most influential grassroots environmental organization in the United States.

www.sierraclub.org

Sunrise Movement

A movement of younger people (under 35) working to stop the climate crisis and create millions of good jobs in the process. They fight for a clean, sustainable future for all: a Green New Deal, and don't subscribe to the obsolete notion that for some to have a healthy, livable future, others must suffer.

www.sunrisemovement.org

UL Sustainability & Environment Solutions

Helping businesses align sustainability management and strategic direction and making it easier to track, measure and share sustainable performance metrics with stakeholders.

https://www.ul.com/services/solutions/sustain ability-and-environment-solutions



The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative, practical solutions and to secure responsible changes in government policy, corporate practices, and consumer choices.

www.ucsusa.org

United States Department of Energy (DoE)

The mission of the DoE is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

www.doe.gov

US Green Building Council (USGBC)

USGBC's mission is to transform the way buildings and communities are designed, built, and operated, enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life.

www.usgbc.org

Wiser Earth

Formerly known as the Natural Capital Institute, we are a team of researchers, teachers, students, activists, scholars, writers, social entrepreneurs, artists, and volunteers committed to the restoration of the earth and the healing of human culture. We do two things: we describe pathways of change in books and research reports, and we create tools for connecting the individuals, information, and organizations that create change.

www.wiserearth.org



World Resources Institute

The World Resources Institute is a global environmental think tank that goes beyond research to put ideas into action. We work with governments, companies, and civil society to build solutions to urgent environmental challenges. WRI's transformative ideas protect the earth and promote development because sustainability is essential to meeting human needs and fulfilling human aspirations in the future.

www.wri.org

World Wildlife Fund (WWF)

WWF's mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth. WWF works in partnership with others to protect and restore species and their habitats, strengthen local communities' ability to conserve the natural resources they depend

upon, transform the markets and policies to reduce the impact of the production and consumption of commodities, and mobilize hundreds of millions of people to support conservation.

www.worldwildlife.org



Sustainability Glossary

The journey toward sustainability is at times technical—one which can require some definitions for added clarity and to ensure a common understanding. Below is a list of terms we come across regularly or use ourselves when defining, discussing, and working toward sustainability.

Appreciative Inquiry

A philosophy of organizational assessment and change that seeks examples of success to emulate and organizational or personal strengths to build upon, rather than focusing upon fixing negative or ineffective organizational processes.

B Corp Incorporation/Certification

In the US, a benefit corporation is a for-profit company that includes in its bylaw that they must consider the impact of their decisions on society and the environment, in addition to its shareholders. "B Corps" are for-profit companies, some also legally incorporated as benefit corporations, certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency.

Bio-based Product

A product (other than food or feed) that is produced from renewable, agricultural (plant, animal and marine), or forestry materials.

Biodegradable

A product or material capable of decomposing in nature within a reasonably short period of time.

Biodiversity

The variability among organisms on Earth and within an ecosystem. Maintaining biodiversity is necessary to preserve the health and survival of an ecosystem.

Biomass

Living or recently dead organic material that can be used as an energy source, excludes organic material that has been transformed by geological processes (such as coal or petroleum).

Biomimicry

A design discipline that studies nature's elements, processes and designs and imitates these ideas and/or uses them to design new solutions to human problems sustainably.

Cap and Trade

Also known as emissions trading, cap and trade is an economic approach to carbon emissions designed to control the amount of carbon emissions released in a certain area (city, country, globally, etc.) by setting a limit and selling emissions permits which entities (companies, countries, states, etc.) can buy, sell, and trade with each other.

Carbon Footprint

The total amount of greenhouse gases emitted directly or indirectly through an activity, or from a product, company or person, typically expressed in tons of either carbon or carbon dioxide.

Carbon Neutral

Carbon neutrality effectively means achieving net zero carbon emissions to the atmosphere. To achieve carbon neutrality, an entity (product, company, person, etc.) may reduce their carbon emissions and/or purchase carbon offsets equivalent to the carbon they directly emit to reach net zero carbon emission.

Carbon Sequestration

The uptake and storage of carbon. Trees are an example carbon sequesters because they absorb carbon dioxide, release the oxygen and store the carbon.



Carbon Tax

A carbon tax is an economic approach to carbon emissions that taxes entities for their carbon emissions. This strategy differs from cap and trade by not setting an overall limit to carbon emissions, but rather sets out to incentivize emission reduction by "punishing" high emitters with high taxes.

Circular Economy

An economy that is restorative and regenerative by design with the goal of always maintaining the highest value and utility of products and materials, distinguishing between technical and biological cycles.

CleanTech

An amorphous term referring to a sector that includes products, services, and processes designed to provide superior performance at lower costs, greatly reduce or eliminate negative ecological impact, and improve the productive and responsible use of natural resources. It's often associated with renewable energy and energy efficiency technologies.

Climate Change

Refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period. Climate change is a change in the "average weather" that a given region experiences. When we speak of climate change on a global scale, we are referring to changes in the climate of the Earth as a whole, including temperature increases (global warming) or decreases, and shifts in wind.

Closed-loop Recycling

The process of utilizing a recycled product in the manufacturing of a new, similar, or the same product.

Collaborative Consumption

The cost of purchasing the good or service is divided across a larger group as the purchase price is recouped through renting or exchanging.

Conscious Capitalism

A form of capitalism that benefits the interests of stakeholders, customers, employees, investors, communities, suppliers, and the environment.

Cradle-to-Cradle

A design philosophy put forth by architect William McDonough that considers the life cycle of a material or product, and is considered the alternative and preferred option to the "cradle to grave" model which sends renewable and reusable resources to landfills. Cradle-to-Cradle design models human industry on nature's processes, in which materials are viewed as nutrients circulating in healthy metabolisms.

Corporate Social Responsibility (CSR)

A form of corporate self-regulation where ethical standards and norms are upheld. The object of CSR is for a company to embrace responsibility for its action and leave a positive impact on its environment, consumers, communities, and stakeholders.

Deforestation

The conversion of forested land to other nonforested uses by the removal and destruction of trees and habitat. Deforestation is cited as one of the major contributors to global warming.

Dematerialization

The reduction of mass in a product that does not diminish quality or intended service for the consumer.

Design for Disassembly (DfD)

The process of designing products so that they can easily, cost-effectively, and rapidly be taken apart at the end of the product's life so that components can be reused and/or recycled.



Design for the Environment

A philosophy applied to any design process that advocates the reduction of environmental and human health impacts through materials selection and design strategies.

Dow Jones Sustainability Index

Global index that evaluates the top 10% of the largest stocks on the Dow Jones Global Indexes (which includes more than 2,500 companies) based on their sustainability and environmental practices.

Ecosystem

A place having unique physical features, encompassing air, water, and land, and habitats supporting plant and animal life, including humans.

Emission Reduction Credit (ERC)/Carbon Offset

An emission reduction credit represents avoided or reduced emissions often measured in tons. ERCs are generated from projects or activities that reduce or avoid emissions. A carbon offset refers to a specific type of ERC that represents an activity that avoids or reduces greenhouse gas emissions or sequesters carbon from the atmosphere.

Energy Efficiency

Using less energy to fulfill the same function or purpose; usually attributed to a technological fix rather than a change in behavior, examples include better insulation to reduce heating / cooling demand and proper tire inflation to improve gas mileage.

Environmental Justice

The fair treatment and meaningful involvement of all people regardless of race, color, sex, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. In February 1994 Executive Order 12898, "Federal Actions to Address Environmental Justice and Minority Populations in Low-Income Populations," was signed. It requires all federal agencies to develop strategies to prevent environmental hazards that have disproportionately negative effects on minority and low socioeconomic populations.

Environmental Product Declaration (EPD)

A verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of a product.

Environmentally Preferable Products

Products or services that have a lesser or reduced effect on human health and the environment when compared to competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service.

EPP Certification

Process by which products or services are certified as Environmentally Preferred Products (EPPs). The certification addresses all stages of the product's/service's life cycle, incorporates key environmental and human health issues relevant to the category, and undergoes outside stakeholder review.

ESG

An acronym for Environmental, Social, and Governance. ESG takes the holistic view that sustainability extends beyond just environmental issues. ESG is best characterized as a framework that helps stakeholders understand how an organization is managing risks and opportunities related to environmental, social, and governance criteria. While the term is often used in the context of investing, stakeholders also include customers, suppliers, and employees.



Extended Producer Responsibility (EPR)

A strategy designed to promote the integration of environmental costs associated with goods throughout their life cycles into the market price of the products.

Externalities

A side effect or consequence of an industrial or commercial activity that is not reflected in the producer's costs nor the price of the product or service. An example of a positive externality is the pollination of surrounding crops by bees raised to produce honey. An example of a negative externality is the nutrient runoff from farms that produce crops for sale to people or companies.

Fossil Fuel

Any non-renewable fuel/energy source such as oil, natural gas, coal.

Global Warming

This refers to a specific type of climate change, an increased warming of the Earth's atmosphere caused by the buildup of man-made gases that trap the sun's heat, causing changes in weather patterns and other effects on a global scale. These effects include global sea level rise, changes in rainfall patterns and frequency, habitat loss and droughts.

Global Warming Potential (GWP)

A relative measure of how much heat a greenhouse gas traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide.

Greenhouse Gases (GHG)

These gases are so named because they contribute to the greenhouse effect due to high concentrations of these gases remaining in the atmosphere. The GHGs of most concern include carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O).

Greenhouse Effect

The trapping of heat within the Earth's atmosphere by greenhouse gases such as carbon dioxide, which accumulate in Earth's atmosphere and act as a blanket keeping heat in.

Greenwashing

The process by which a company publicly and misleadingly exaggerates or embellishes the environmental attributes of itself or its products, while participating in environmentally and/or socially irresponsible practices.

Green Building

A comprehensive process of design and construction that employs techniques to minimize adverse environmental impacts and reduce the energy consumption of a building, while contributing to the health and productivity of its occupants; common metrics for evaluating green buildings include the LEED certification and Australia's Green Star program.

Green Guides (FTC)

Guidelines designed to help marketers avoid making environmental claims that mislead consumers.

Health Product Declaration (HPD)

An open standard format for the accurate reporting of material contents and potential health hazards.

Indoor Air Quality (IAQ)

Refers to the contents of interior air that could affect the health and comfort of occupants. Acceptable IAQ is air in which there are no known concentrations of harmful contaminants.

Industrial Ecology

An interdisciplinary field that focuses on the sustainable combination of environment, economy, and technology.



Leadership in Energy and Environmental Design (LEED)

A green building rating system encouraging and accelerating global adoption of sustainable green building and development practices through the creation and implementation of environmental tools and performance criteria.

Lean Manufacturing

Lean manufacturing involves efforts to eliminate or reduce waste in design, manufacturing, distribution, and customer service processes.

Life Cycle Assessment (LCA)

LCA quantifies the potential environmental impacts of products or systems throughout their life cycles and can highlight a product's impact areas to target strategic improvements.

Living Building Challenge (LBD)

The built environment's most rigorous performance standard. It calls for the creation of building projects at all scales that operate as cleanly, beautifully, and efficiently as nature's architecture.

Market Based Solutions

Policy instruments that use markets, price, and other economic variables to create incentives for polluters to reduce or eliminate negative environmental externalities.

Natural Capital

The flow of ecosystem goods and services that interact with the human economic system. The idea of natural capital expands economic models to include natural resources that have value to humanity but no inherent price.

Nature-Based Solutions (NBS)

NBS are actions to protect, sustainably manage, and restore natural and modified ecosystems. They leverage nature and the power of healthy ecosystems to protect people, optimize infrastructure and safeguard a stable and biodiverse future.

Net Zero

The term "net zero" means that any greenhouse gas emissions released are balanced by an equal amount being taken out of the atmosphere. To limit the increase in global temperatures, global greenhouse gas emissions need to be cut in half by 2030, and reach "net zero" by mid-century for the 1.5°C degree target.

Non-point Source

These are identifiable sources of pollution that cannot be traced back to a specific origin. An example is water runoff from an agricultural field.

Photovoltaic Cells (PV Cells)

Also called Solar Cells, they convert sunlight directly into electricity. PV cells are made of semiconducting materials similar to those used in computer chips. When sunlight is absorbed by these materials, the solar energy knocks electrons loose from their atoms, allowing the electrons to flow through the material to produce electricity.

Point Source

Point sources are individual identifiable sources of water, air, thermal, noise, or light pollution. These sources of pollution can be measured and mathematically approximated.

Polylactic Acid (PLA)

PLA is a biopolymer made from renewable resources. It is thermoplastic and can be used to make fibers, packaging, and other products as an alternative to petroleum-based plastics. It is derived from bacterial fermentation of agricultural by-products such as corn, sugar, or wheat. PLA is not only made from renewable resources but is also biodegradable.

Post-Consumer Recycled Content

Material that is recovered after its intended use as a consumer product, then reused as a component of another product. Examples of post-consumer waste that are recycled include carpet tiles (for new yarn and tile backing), aluminum cans, PET soda bottles, and office paper.



Post-Industrial Recycled Content

Also known as Pre-Consumer Recycled Content, it is waste material from manufacturing processes that is reused as a component of another product. Post-industrial recycled content comes from material that would have otherwise been waste and has undergone some physical recycling process. Examples of post-industrial waste that are recycled include yarn extrusion waste, metal scrap, and fiber in paper manufacturing.

Product Service System

A new concept for businesses to improve their sustainability performance. The approach analyzes the needs of consumers to be filled by products and services and uses the results as a basis for innovation.

Recycling

The series of activities, including collection, separation, and processing, by which materials are recovered from the waste stream for use as raw materials in the manufacture of new products.

- Upcycling: Reuse discarded objects or material in such a way as to create a product of a higher quality or value than the original.
- Downcycling: A recycling practice that involves breaking an item down into its component elements or materials.

Recyclable

A designation for products or materials that are capable of being recovered from, or otherwise diverted from waste streams into an established recycling program.

Recycled Content

Refers to the amount—typically expressed as a percentage—of recycled materials in a product.

Renewable Energy Credits (RECs)

Also known as Green Tags, green energy certificates, or tradable renewable certifications RECs are tradable, non-tangible, commodities that represent the technology and environmental attributes of electricity generated from renewable resources.

Renewable Resources

A resource that can be replenished at a rate equal to or greater than its rate of depletion. Examples of renewable resources include corn, trees, and soy.

Repurposing

Cleaning or refurbishing that allows a product to be reused again in its current form, thereby extending its useful life.

Resilience

Resilience is the capacity of a system to survive, adapt, and grow in the face of unforeseen changes, even catastrophic incidents.

Return on Investment (ROI)

A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of several different investments. ROI measures the amount of return on an investment relative to the investment's cost.

Sharing Economy

A socio-economic ecosystem built around the sharing of human, physical and intellectual resources. It includes the shared creation, production, distribution, trade and consumption of goods and services by different people and organizations.

Socially Responsible Investing (SRI)

Also known as sustainable, socially conscious, "green" or ethical investing, is any investment strategy which seeks to consider both financial return and social good.



Stakeholder

An individual or group potentially affected by the activities of a company or organization; in sustainable business models the term includes financial shareholders as well as those affected by environmental or social factors such as suppliers, consumers, employees, the local community, and the natural environment.

Standards

Governmental or privately created lists of criteria used to regulate or evaluate the products or behavior or corporations. Standards can play a critical role in stimulating the market and giving companies information to create better products or change corporate behavior. An example is the LEED green building rating system for buildings.

Sustainability

The aspiration to ensure that meeting the needs of the present does not compromise the ability of future generations to meet their own needs, the most widely accepted definition comes from "Our Common Future," Report of World Commission on Environment and Development, commonly called the The Brundtland Report).

Transparency

A "lack of hidden agendas or conditions, accompanied by the availability of full information required for collaboration, cooperation, and collective decision making."

Triple Bottom Line

The "bottom line" refers to an entity's top priority being their financials. The triple bottom line is when an entity holds the importance of the environment and society equal to the economy. Commonly referred to in several ways—People, Planet, Profit; or Ecology, Economy, Equity; or Social, Environmental, Economic.

True Cost Accounting

The process by which the full costs and benefits of different food and farming systems are identified, quantified, and made transparent with the aim of ensuring that in the future these are fully reflected in the cost of production for farmers, including the prices they receive for their product and the affordability of food for consumers and in relation to their impacts on the environment and public health for society.

Total Cost Accounting

A financial tool used to provide a more complete assessment of the true profitability of an entity by considering a wider range of direct and indirect costs and savings. It uses longer time horizons that reflect the full economic or commercial life of the project, incorporates the time value of money, reveals hidden costs, and considers uncertain or less quantifiable costs.

Volatile Organic Compounds (VOC)

Compounds that evaporate from many housekeeping, maintenance and building products made with organic chemicals. In sufficient quantities, VOCs can cause irritation, and some are suspected of causing or exacerbating acute and chronic diseases.

Waste-to-Energy

The burning of waste in a controlled-environment incinerator to generate steam, heat, or electricity.

Drivers of Sustainability

- 1. Climate change (mitigation/adaptation)
- 2. Economic factors (efficiency!)
- 3. Energy costs (up & down)
- 4. Social factors (becoming more of a social norm)
- 5. Political (policy related to all the above)
- 6. Potential liability
- 7. Employee satisfaction
- 8. Health issues
- 9. Population growth/consumerism
- 10. New capital/entrepreneurship/generational
- 11. Resource scarcity
- 12. Big players
- 13. National security
- 14. Geo-political conflict
- 15. Communication
- 16. Consumer demand
- 17. Science/tech progress
- 18. Natural disasters
- 19. Convenience
- 20. Summary
 - a. Instability
 - b. Efficiency
 - c. Science/Tech
 - d. Communication
 - e. Innovation



Articles & Media

TED Talks



HOW IS YOUR CITY TACKLING THE CLIMATE CRISIS?

Marvin Rees TED2022

https://www.ted.com/talks/marvin_rees_ how_is_your_city_tackling_the_climate_crisis



THE BUSINESS LOGIC OF SUSTAINABILITY

Ray Anderson TED2009

www.ted.com/talks/ray_anderson_the_ business_logic_of_sustainability?language=en



IT'S IMPOSSIBLE TO HAVE HEALTHY PEOPLE ON A SICK PLANET

Shweta Narayan Countdown Summit

https://www.ted.com/talks/shweta_narayan_it_s_ impossible_to_have_healthy_people_on_a_sick_ planet/transcript





BIOMIMICRY IN ACTION

Janine Benyus TEDGlobal 2009

https://www.ted.com/talks/janine_ benyus_biomimicry_in_action



HOW URBAN AGRICULTURE IS TRANSFORMING DETROIT

Devita Davison TED2017

https://www.ted.com/talks/devita_davison_ how_urban_agriculture_is_transforming_ detroit/transcript



THE BUSINESS CASE FOR WORKING WITH YOUR TOUGHEST CRITICS

Bob Langert TED Summit 2019

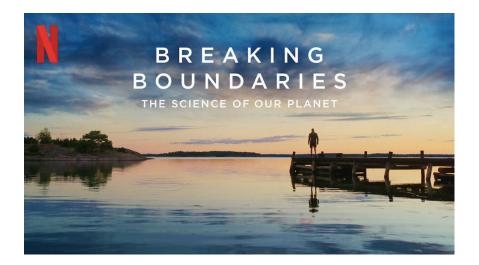
https://www.ted.com/talks/bob_langert_the_business_ case_for_working_with_your_toughest_critics?language=en

ALL SUSTAINABILITY-RELATED TED TALKS

https://www.ted.com/topics/sustainability



Documentary



Breaking Boundaries tells the story how humans are pushing Earth beyond the boundaries that have kept the planet stable for 10,000 years, following scientific journey of Rockström and his team's discovery of the nine planetary boundaries.

2021 73 minutes



United Nations Sustainable Development Goals (SDGs)

SUSTAINABLE G ALS





The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 SDGs, which are an urgent call for action by all countries—developed and developing—in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth—all while tackling climate change and working to preserve our oceans and forests.

sdgs.un.org/goals





JANUARY-FEBRUARY 2011 REPRINT R1101C

Harvard Business Review

THE BIG IDEA

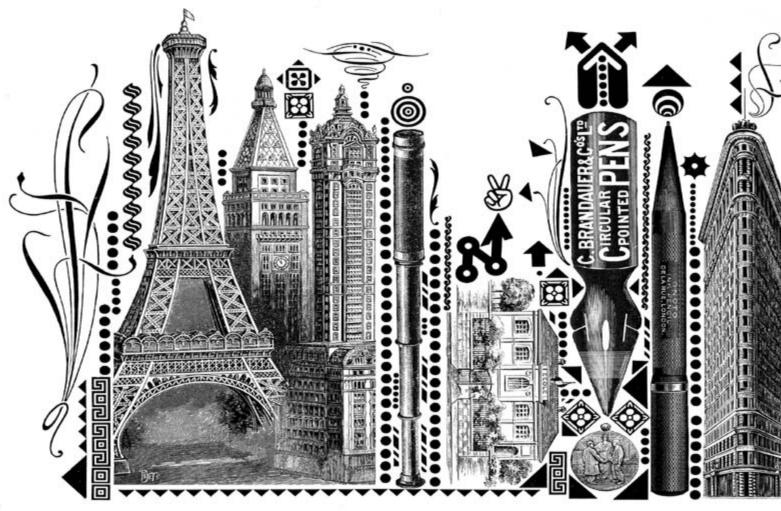
Creating Shared Value

How to reinvent capitalism—and unleash a wave of innovation and growth by Michael E. Porter and Mark R. Kramer

The Big Idea

Capitalism is under siege....Diminished to set policies that sap economic growth.... The purpose of the corporation must be

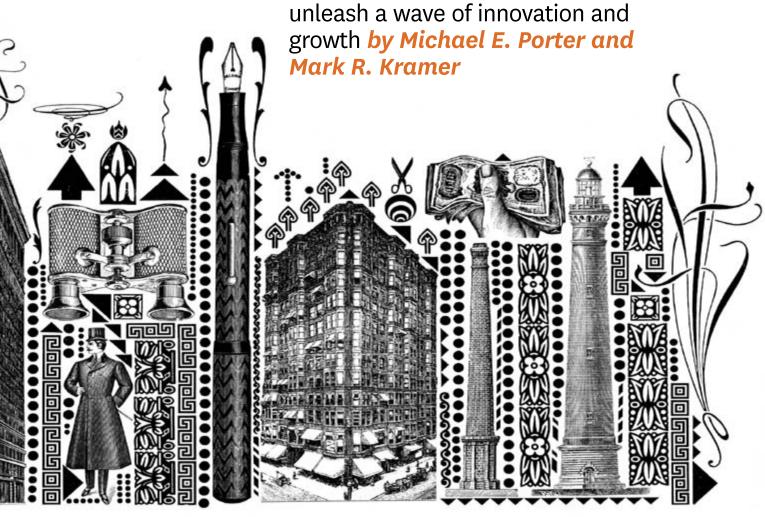
CREATING SH



trust in business is causing political leaders **Business is caught in a vicious circle....** redefined around

ARED VALUE

How to reinvent capitalism-and



THE CAPITALIST SYSTEM is under siege. In recent years business increasingly has been viewed as a major cause of social, environmental, and economic problems. Companies are widely perceived to be prospering at the expense of the broader community.

Even worse, the more business has begun to embrace corporate responsibility, the more it has been blamed for society's failures. The legitimacy of business has fallen to levels not seen in recent history. This diminished trust in business leads political leaders to set policies that undermine competitiveness and sap economic growth. Business is caught in a vicious circle.

A big part of the problem lies with companies themselves, which remain trapped in an outdated approach to value creation that has emerged over the past few decades. They continue to view value creation narrowly, optimizing short-term financial performance in a bubble while missing the most important customer needs and ignoring the broader influences that determine their longer-term success. How else could companies overlook the wellbeing of their customers, the depletion of natural resources vital to their businesses, the viability of key suppliers, or the economic distress of the communities in which they produce and sell? How else could companies think that simply shifting activities to locations with ever lower wages was a sustainable "solution" to competitive challenges? Government and civil society have often exacerbated the problem by attempting to address social weaknesses at the expense of business. The presumed trade-offs between economic efficiency and social progress have been institutionalized in decades of policy choices.

Companies must take the lead in bringing business and society back together. The recognition is there among sophisticated business and thought leaders, and promising elements of a new model are emerging. Yet we still lack an overall framework for guiding these efforts, and most companies remain stuck in a "social responsibility" mind-set in which societal issues are at the periphery, not the core.

The solution lies in the principle of shared value, which involves creating economic value in a way that *also* creates value for society by addressing its needs and challenges. Businesses must reconnect company success with social progress. Shared value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success. It is not on the margin of what companies do but at the center. We believe that it can give rise to the next major transformation of business thinking.

A growing number of companies known for their hard-nosed approach to business-such as GE, Google, IBM, Intel, Johnson & Johnson, Nestlé, Unilever, and Wal-Mart-have already embarked on important efforts to create shared value by reconceiving the intersection between society and corporate performance. Yet our recognition of the transformative power of shared value is still in its genesis. Realizing it will require leaders and managers to develop new skills and knowledge-such as a far deeper appreciation of societal needs, a greater understanding of the true bases of company productivity, and the ability to collaborate across profit/nonprofit boundaries. And government must learn how to regulate in ways that enable shared value rather than work against it.

Capitalism is an unparalleled vehicle for meeting human needs, improving efficiency, creating jobs, and building wealth. But a narrow conception of capitalism has prevented business from harnessing its full potential to meet society's broader challenges. The opportunities have been there all along but have been overlooked. Businesses acting as businesses, not as charitable donors, are the most powerful force for addressing the pressing issues we face. The moment for a new conception of capitalism is now; society's needs are large and growing, while customers, employees, and a new generation of young people are asking business to step up.

The purpose of the corporation must be redefined as creating shared value, not just profit per se. This will drive the next wave of innovation and productivity growth in the global economy. It will also reshape capitalism and its relationship to society. Perhaps most important of all, learning how to create shared value is our best chance to legitimize business again.

Moving Beyond Trade-Offs

Business and society have been pitted against each other for too long. That is in part because economists have legitimized the idea that to provide societal benefits, companies must temper their economic success. In neoclassical thinking, a requirement for social improvement—such as safety or hiring the disabled—imposes a constraint on the corporation. Adding a constraint to a firm that is already maximiz-

Idea in Brief

The concept of shared value which focuses on the connections between societal and economic progress—has the power to unleash the next wave of global growth. An increasing number of companies known for their hard-nosed approach to business—such as Google, IBM, Intel, Johnson & Johnson, Nestlé, Unilever, and Wal-Mart—have begun to embark on important shared value initiatives. But our understanding of the potential of shared value is just beginning. There are three key ways that companies can create shared value opportunities:

- By reconceiving products and markets
- By redefining productivity in the value chain
- By enabling local cluster development

Every firm should look at decisions and opportunities through the lens of shared value. This will lead to new approaches that generate greater innovation and growth for companies—and also greater benefits for society.

Societal needs, not just conventional economic needs, define markets, and social harms can create internal costs for firms.

ing profits, says the theory, will inevitably raise costs and reduce those profits.

A related concept, with the same conclusion, is the notion of externalities. Externalities arise when firms create social costs that they do not have to bear, such as pollution. Thus, society must impose taxes, regulations, and penalties so that firms "internalize" these externalities—a belief influencing many government policy decisions.

This perspective has also shaped the strategies of firms themselves, which have largely excluded social and environmental considerations from their economic thinking. Firms have taken the broader context in which they do business as a given and resisted regulatory standards as invariably contrary to their interests. Solving social problems has been ceded to governments and to NGOs. Corporate responsibility programs-a reaction to external pressure-have emerged largely to improve firms' reputations and are treated as a necessary expense. Anything more is seen by many as an irresponsible use of shareholders' money. Governments, for their part, have often regulated in a way that makes shared value more difficult to achieve. Implicitly, each side has assumed that the other is an obstacle to pursuing its goals and acted accordingly.

The concept of shared value, in contrast, recognizes that societal needs, not just conventional economic needs, define markets. It also recognizes that social harms or weaknesses frequently create *internal* costs for firms—such as wasted energy or raw materials, costly accidents, and the need for remedial training to compensate for inadequacies in education. And addressing societal harms and constraints does not necessarily raise costs for firms, because they can innovate through using new technologies, operating methods, and management approaches—and as a result, increase their productivity and expand their markets.

Shared value, then, is not about personal values. Nor is it about "sharing" the value already created by firms-a redistribution approach. Instead, it is about expanding the total pool of economic and social value. A good example of this difference in perspective is the fair trade movement in purchasing. Fair trade aims to increase the proportion of revenue that goes to poor farmers by paying them higher prices for the same crops. Though this may be a noble sentiment, fair trade is mostly about redistribution rather than expanding the overall amount of value created. A shared value perspective, instead, focuses on improving growing techniques and strengthening the local cluster of supporting suppliers and other institutions in order to increase farmers' efficiency, yields, product quality, and sustainability. This leads to a bigger pie of revenue and profits that benefits both farmers and the companies that buy from them. Early studies of cocoa farmers in the Côte d'Ivoire, for instance, suggest that while fair trade can increase farmers' incomes by 10% to 20%, shared value investments can raise their incomes by more than 300%. Initial investment and time may be required to implement new procurement practices and develop the supporting cluster, but the return will be greater economic value and broader strategic benefits for all participants.

The Roots of Shared Value

At a very basic level, the competitiveness of a company and the health of the communities around it are closely intertwined. A business needs a successful community, not only to create demand for its products but also to provide critical public assets and a supportive environment. A community needs successful businesses to provide jobs and wealth creation opportunities for its citizens. This interdependence means that public policies that undermine the productivity and competitiveness of businesses are self-defeating, especially in a global economy where facilities and jobs can easily move elsewhere. NGOs and governments have not always appreciated this connection.

In the old, narrow view of capitalism, business contributes to society by making a profit, which supports employment, wages, purchases, investments, and taxes. Conducting business as usual is sufficient social benefit. A firm is largely a self-contained entity, and social or community issues fall outside its proper scope. (This is the argument advanced persuasively by Milton Friedman in his critique of the whole notion of corporate social responsibility.)

WHAT IS "SHARED VALUE"?

The concept of shared value can be defined as policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates. Shared value creation focuses on identifying and expanding the connections between societal and economic progress.

The concept rests on the premise that both economic and social progress must be addressed using value principles. Value is defined as benefits relative to costs, not just benefits alone. Value creation is an idea that has long been recognized in business, where profit is revenues earned from customers minus the costs incurred. However, businesses have rarely approached societal issues from a value perspective but have treated them as peripheral matters. This has obscured the connections between economic and social concerns.

In the social sector, thinking in value terms is even less common. Social organizations and government entities often see success solely in terms of the benefits achieved or the money expended. As governments and NGOs begin to think more in value terms, their interest in collaborating with business will inevitably grow. This perspective has permeated management thinking for the past two decades. Firms focused on enticing consumers to buy more and more of their products. Facing growing competition and shorterterm performance pressures from shareholders, managers resorted to waves of restructuring, personnel reductions, and relocation to lower-cost regions, while leveraging balance sheets to return capital to investors. The results were often commoditization, price competition, little true innovation, slow organic growth, and no clear competitive advantage.

In this kind of competition, the communities in which companies operate perceive little benefit even as profits rise. Instead, they perceive that profits come at their expense, an impression that has become even stronger in the current economic recovery, in which rising earnings have done little to offset high unemployment, local business distress, and severe pressures on community services.

It was not always this way. The best companies once took on a broad range of roles in meeting the needs of workers, communities, and supporting businesses. As other social institutions appeared on the scene, however, these roles fell away or were delegated. Shortening investor time horizons began to narrow thinking about appropriate investments. As the vertically integrated firm gave way to greater reliance on outside vendors, outsourcing and offshoring weakened the connection between firms and their communities. As firms moved disparate activities to more and more locations, they often lost touch with any location. Indeed, many companies no longer recognize a home—but see themselves as "global" companies.

These transformations drove major progress in economic efficiency. However, something profoundly important was lost in the process, as morefundamental opportunities for value creation were missed. The scope of strategic thinking contracted.

Strategy theory holds that to be successful, a company must create a distinctive value proposition that meets the needs of a chosen set of customers. The firm gains competitive advantage from how it configures the value chain, or the set of activities involved in creating, producing, selling, delivering, and supporting its products or services. For decades businesspeople have studied positioning and the best ways to design activities and integrate them. However, companies have overlooked opportunities to meet fundamental societal needs and misunderstood how societal harms and weaknesses affect value chains. Our field of vision has simply been too narrow.

In understanding the business environment, managers have focused most of their attention on the industry, or the particular business in which the firm competes. This is because industry structure has a decisive impact on a firm's profitability. What has been missed, however, is the profound effect that location can have on productivity and innovation. Companies have failed to grasp the importance of the broader business environment surrounding their major operations.

How Shared Value Is Created

Companies can create economic value by creating societal value. There are three distinct ways to do this: by reconceiving products and markets, redefining productivity in the value chain, and building supportive industry clusters at the company's locations. Each of these is part of the virtuous circle of shared value; improving value in one area gives rise to opportunities in the others.

The concept of shared value resets the boundaries of capitalism. By better connecting companies' success with societal improvement, it opens up many ways to serve new needs, gain efficiency, create differentiation, and expand markets.

The ability to create shared value applies equally to advanced economies and developing countries, though the specific opportunities will differ. The opportunities will also differ markedly across industries and companies—but every company has them. And their range and scope is far broader than has been recognized. [The idea of shared value was initially explored in a December 2006 HBR article by Michael E. Porter and Mark R. Kramer, "Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility."]

Reconceiving Products and Markets

Society's needs are huge—health, better housing, improved nutrition, help for the aging, greater financial security, less environmental damage. Arguably, they are the greatest unmet needs in the global economy. In business we have spent decades learning how to parse and manufacture demand while missing the most important demand of all. Too many companies have lost sight of that most basic of questions: Is our product good for our customers? Or for our customers' customers? In advanced economies, demand for products and services that meet societal needs is rapidly growing. Food companies that traditionally concentrated on taste and quantity to drive more and more consumption are refocusing on the fundamental need for better nutrition. Intel and IBM are both devising ways to help utilities harness digital intelligence in order to economize on power usage. Wells Fargo has developed a line of products and tools that help customers budget, manage credit, and pay down debt. Sales of GE's Ecomagination products reached \$18 billion in 2009—the size of a *Fortune* 150 company. GE now predicts that revenues of Ecomagination products will grow at twice the rate of total company revenues over the next five years.

In these and many other ways, whole new avenues for innovation open up, and shared value is created. Society's gains are even greater, because businesses will often be far more effective than governments and nonprofits are at marketing that motivates customers to embrace products and services that create societal benefits, like healthier food or environmentally friendly products.



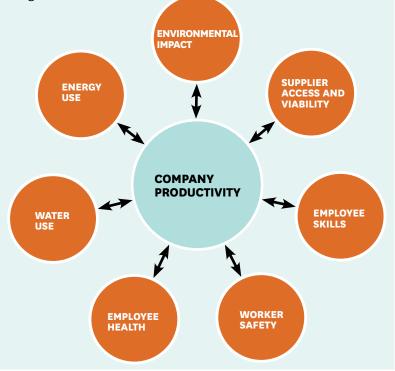
BLURRING THE PROFIT/NONPROFIT BOUNDARY

The concept of shared value blurs the line between for-profit and nonprofit organizations. New kinds of hybrid enterprises are rapidly appearing. For example, WaterHealth International, a fast-growing forprofit, uses innovative water purification techniques to distribute clean water at minimal cost to more than one million people in rural India, Ghana, and the Philippines. Its investors include not only the socially focused Acumen Fund and the International Finance Corporation of the World Bank but also Dow Chemical's venture fund. Revolution Foods, a four-year-old venture-capital-backed U.S. start-up, provides 60,000 fresh, healthful, and nutritious meals to students daily-and does so at a higher gross margin than traditional competitors. Waste Concern, a hybrid profit/nonprofit enterprise started in Bangladesh 15 years ago, has built the capacity to convert 700 tons of trash, collected daily from neighborhood slums, into organic fertilizer, thereby increasing crop yields and reducing CO₂ emissions. Seeded with capital from the Lions Club and the United Nations Development Programme, the company improves health conditions while earning a substantial gross margin through fertilizer sales and carbon credits.

The blurring of the boundary between successful for-profits and nonprofits is one of the strong signs that creating shared value is possible.

THE CONNECTION BETWEEN COMPETITIVE ADVANTAGE AND SOCIAL ISSUES

There are numerous ways in which addressing societal concerns can yield productivity benefits to a firm. Consider, for example, what happens when a firm invests in a wellness program. Society benefits because employees and their families become healthier, and the firm minimizes employee absences and lost productivity. The graphic below depicts some areas where the connections are strongest.



Equal or greater opportunities arise from serving disadvantaged communities and developing countries. Though societal needs are even more pressing there, these communities have not been recognized as viable markets. Today attention is riveted on India, China, and increasingly, Brazil, which offer firms the prospect of reaching billions of new customers at the bottom of the pyramid—a notion persuasively articulated by C.K. Prahalad. Yet these countries have always had huge needs, as do many developing countries.

Similar opportunities await in nontraditional communities in advanced countries. We have learned, for example, that poor urban areas are America's most underserved market; their substantial concentrated purchasing power has often been overlooked. (See the research of the Initiative for a Competitive Inner City, at icic.org.)

The societal benefits of providing appropriate products to lower-income and disadvantaged consumers can be profound, while the profits for companies can be substantial. For example, low-priced cell phones that provide mobile banking services are helping the poor save money securely and transforming the ability of small farmers to produce and market their crops. In Kenya, Vodafone's M-PESA mobile banking service signed up 10 million customers in three years; the funds it handles now represent 11% of that country's GDP. In India, Thomson Reuters has developed a promising monthly service for farmers who earn an average of \$2,000 a year. For a fee of \$5 a quarter, it provides weather and croppricing information and agricultural advice. The service reaches an estimated 2 million farmers, and early research indicates that it has helped increase the incomes of more than 60% of them-in some cases even tripling incomes. As capitalism begins to work in poorer communities, new opportunities for economic development and social progress increase exponentially.

For a company, the starting point for creating this kind of shared value is to identify all the societal needs, benefits, and harms that are or could be embodied in the firm's products. The opportunities are not static; they change constantly as technology evolves, economies develop, and societal priorities shift. An ongoing exploration of societal needs will lead companies to discover new opportunities for differentiation and repositioning in traditional markets, and to recognize the potential of new markets they previously overlooked.

Meeting needs in underserved markets often requires redesigned products or different distribution methods. These requirements can trigger fundamental innovations that also have application in traditional markets. Microfinance, for example, was invented to serve unmet financing needs in developing countries. Now it is growing rapidly in the United States, where it is filling an important gap that was unrecognized.

Redefining Productivity In the Value Chain

A company's value chain inevitably affects—and is affected by—numerous societal issues, such as natural resource and water use, health and safety, working conditions, and equal treatment in the workplace. Opportunities to create shared value arise because societal problems can create economic costs in the firm's value chain. Many so-called externalities actually inflict internal costs on the firm, even in the absence of regulation or resource taxes. Excess packaging of products and greenhouse gases

By reducing its packaging and cutting 100 million miles from the delivery routes of its trucks, Wal-Mart lowered carbon emissions and saved \$200 million in costs.

are not just costly to the environment but costly to the business. Wal-Mart, for example, was able to address both issues by reducing its packaging and rerouting its trucks to cut 100 million miles from its delivery routes in 2009, saving \$200 million even as it shipped more products. Innovation in disposing of plastic used in stores has saved millions in lower disposal costs to landfills.

The new thinking reveals that the congruence between societal progress and productivity in the value chain is far greater than traditionally believed (see the exhibit "The Connection Between Competitive Advantage and Social Issues"). The synergy increases when firms approach societal issues from a shared value perspective and invent new ways of operating to address them. So far, however, few companies have reaped the full productivity benefits in areas such as health, safety, environmental performance, and employee retention and capability.

But there are unmistakable signs of change. Efforts to minimize pollution were once thought to inevitably increase business costs—and to occur only because of regulation and taxes. Today there is a growing consensus that major improvements in environmental performance can often be achieved with better technology at nominal incremental cost and can even yield net cost savings through enhanced resource utilization, process efficiency, and quality.

In each of the areas in the exhibit, a deeper understanding of productivity and a growing awareness of the fallacy of short-term cost reductions (which often actually lower productivity or make it unsustainable) are giving rise to new approaches. The following are some of the most important ways in which shared value thinking is transforming the value chain, which are not independent but often mutually reinforcing. Efforts in these and other areas are still works in process, whose implications will be felt for years to come.

Energy use and logistics. The use of energy throughout the value chain is being reexamined, whether it be in processes, transportation, buildings, supply chains, distribution channels, or support ser-

vices. Triggered by energy price spikes and a new awareness of opportunities for energy efficiency, this reexamination was under way even before carbon emissions became a global focus. The result has been striking improvements in energy utilization through better technology, recycling, cogeneration, and numerous other practices—all of which create shared value.

We are learning that shipping is expensive, not just because of energy costs and emissions but because it adds time, complexity, inventory costs, and management costs. Logistical systems are beginning to be redesigned to reduce shipping distances, streamline handling, improve vehicle routing, and the like. All of these steps create shared value. The British retailer Marks & Spencer's ambitious overhaul of its supply chain, for example, which involves steps as simple as stopping the purchase of supplies from one hemisphere to ship to another, is expected to save the retailer £175 million annually by fiscal 2016, while hugely reducing carbon emissions. In the process of reexamining logistics, thinking about outsourcing and location will also be revised (as we will discuss below).

Resource use. Heightened environmental awareness and advances in technology are catalyzing new approaches in areas such as utilization of water, raw materials, and packaging, as well as expanding recycling and reuse. The opportunities apply to all resources, not just those that have been identified by environmentalists. Better resource utilization—enabled by improving technology—will permeate all parts of the value chain and will spread to suppliers and channels. Landfills will fill more slowly.

For example, Coca-Cola has already reduced its worldwide water consumption by 9% from a 2004 baseline—nearly halfway to its goal of a 20% reduction by 2012. Dow Chemical managed to reduce consumption of fresh water at its largest production site by one billion gallons—enough water to supply nearly 40,000 people in the U.S. for a year—resulting in savings of \$4 million. The demand for watersaving technology has allowed India's Jain Irrigation, a leading global manufacturer of complete drip irrigation systems for water conservation, to achieve a 41% compound annual growth rate in revenue over the past five years.

Procurement. The traditional playbook calls for companies to commoditize and exert maximum bargaining power on suppliers to drive down prices—even when purchasing from small businesses or subsistence-level farmers. More recently, firms have been rapidly outsourcing to suppliers in lower-wage locations.

Today some companies are beginning to understand that marginalized suppliers cannot remain productive or sustain, much less improve, their quality. By increasing access to inputs, sharing technology, and providing financing, companies can improve supplier quality and productivity while ensuring access to growing volume. Improving productivity will often trump lower prices. As suppliers get stronger, their environmental impact often falls dramatically, which further improves their efficiency. Shared value is created.

A good example of such new procurement thinking can be found at Nespresso, one of Nestlé's fastestgrowing divisions, which has enjoyed annual growth of 30% since 2000. Nespresso combines a sophisticated espresso machine with single-cup aluminum capsules containing ground coffees from around the world. Offering quality and convenience, Nespresso has expanded the market for premium coffee.

THE ROLE OF SOCIAL ENTREPRENEURS

Businesses are not the only players in finding profitable solutions to social problems. A whole generation of social entrepreneurs is pioneering new product concepts that meet social needs using viable business models. Because they are not locked into narrow traditional business thinking, social entrepreneurs are often well ahead of established corporations in discovering these opportunities. Social enterprises that create shared value can scale up far more rapidly than purely social programs, which often suffer from an inability to grow and become self-sustaining.

Real social entrepreneurship should be measured by its ability to create shared value, not just social benefit.

Obtaining a reliable supply of specialized coffees is extremely challenging, however. Most coffees are grown by small farmers in impoverished rural areas of Africa and Latin America, who are trapped in a cycle of low productivity, poor quality, and environmental degradation that limits production volume. To address these issues, Nestlé redesigned procurement. It worked intensively with its growers, providing advice on farming practices, guaranteeing bank loans, and helping secure inputs such as plant stock, pesticides, and fertilizers. Nestlé established local facilities to measure the quality of the coffee at the point of purchase, which allowed it to pay a premium for better beans directly to the growers and thus improve their incentives. Greater yield per hectare and higher production quality increased growers' incomes, and the environmental impact of farms shrank. Meanwhile, Nestlé's reliable supply of good coffee grew significantly. Shared value was created.

Embedded in the Nestlé example is a far broader insight, which is the advantage of buying from capable local suppliers. Outsourcing to other locations and countries creates transaction costs and inefficiencies that can offset lower wage and input costs. Capable local suppliers help firms avoid these costs and can reduce cycle time, increase flexibility, foster faster learning, and enable innovation. Buying local includes not only local companies but also local units of national or international companies. When firms buy locally, their suppliers can get stronger, increase their profits, hire more people, and pay better wages—all of which will benefit other businesses in the community. Shared value is created.

Distribution. Companies are beginning to reexamine distribution practices from a shared value perspective. As iTunes, Kindle, and Google Scholar (which offers texts of scholarly literature online) demonstrate, profitable new distribution models can also dramatically reduce paper and plastic usage. Similarly, microfinance has created a cost-efficient new model of distributing financial services to small businesses.

Opportunities for new distribution models can be even greater in nontraditional markets. For example, Hindustan Unilever is creating a new directto-home distribution system, run by underprivileged female entrepreneurs, in Indian villages of fewer than 2,000 people. Unilever provides microcredit and training and now has more than 45,000 entrepreneurs covering some 100,000 villages

By investing in employee wellness programs, Johnson & Johnson has saved \$250 million on health care costs.

across 15 Indian states. Project Shakti, as this distribution system is called, benefits communities not only by giving women skills that often double their household income but also by reducing the spread of communicable diseases through increased access to hygiene products. This is a good example of how the unique ability of business to market to hard-to-reach consumers can benefit society by getting life-altering products into the hands of people that need them. Project Shakti now accounts for 5% of Unilever's total revenues in India and has extended the company's reach into rural areas and built its brand in media-dark regions, creating major economic value for the company.

Employee productivity. The focus on holding down wage levels, reducing benefits, and offshoring is beginning to give way to an awareness of the positive effects that a living wage, safety, wellness, training, and opportunities for advancement for employees have on productivity. Many companies, for example, traditionally sought to minimize the cost of "expensive" employee health care coverage or even eliminate health coverage altogether. Today leading companies have learned that because of lost workdays and diminished employee productivity, poor health costs them more than health benefits do. Take Johnson & Johnson. By helping employees stop smoking (a two-thirds reduction in the past 15 years) and implementing numerous other wellness programs, the company has saved \$250 million on health care costs, a return of \$2.71 for every dollar spent on wellness from 2002 to 2008. Moreover, Johnson & Johnson has benefited from a more present and productive workforce. If labor unions focused more on shared value, too, these kinds of employee approaches would spread even faster.

Location. Business thinking has embraced the myth that location no longer matters, because logistics are inexpensive, information flows rapidly, and markets are global. The cheaper the location, then, the better. Concern about the local communities in which a company operates has faded.

That oversimplified thinking is now being challenged, partly by the rising costs of energy and carbon emissions but also by a greater recognition of the productivity cost of highly dispersed production systems and the hidden costs of distant procurement discussed earlier. Wal-Mart, for example, is increasingly sourcing produce for its food sections from local farms near its warehouses. It has discovered that the savings on transportation costs and the ability to restock in smaller quantities more than offset the lower prices of industrial farms farther away. Nestlé is establishing smaller plants closer to its markets and stepping up efforts to maximize the use of locally available materials.

The calculus of locating activities in developing countries is also changing. Olam International, a leading cashew producer, traditionally shipped its nuts from Africa to Asia for processing at facilities staffed by productive Asian workers. But by opening local processing plants and training workers in Tanzania, Mozambique, Nigeria, and Côte d'Ivoire, Olam has cut processing and shipping costs by as much as 25%—not to mention, greatly reduced carbon emissions. In making this move, Olam also built preferred relationships with local farmers. And it has provided direct employment to 17,000 people—95% of whom are women—and indirect employment to an equal number of people, in rural areas where jobs otherwise were not available.

These trends may well lead companies to remake their value chains by moving some activities closer to home and having fewer major production locations. Until now, many companies have thought that being global meant moving production to locations with the lowest labor costs and designing their supply chains to achieve the most immediate impact on expenses. In reality, the strongest international competitors will often be those that can establish deeper roots in important communities. Companies that can embrace this new locational thinking will create shared value.

AS THESE examples illustrate, reimagining value chains from the perspective of shared value will offer significant new ways to innovate and unlock new economic value that most businesses have missed.



Enabling Local Cluster Development

No company is self-contained. The success of every company is affected by the supporting companies and infrastructure around it. Productivity and innovation are strongly influenced by "clusters," or geographic concentrations of firms, related businesses, suppliers, service providers, and logistical infrastructure in a particular field—such as IT in Silicon Valley, cut flowers in Kenya, and diamond cutting in Surat, India.

Clusters include not only businesses but institutions such as academic programs, trade associations, and standards organizations. They also draw on the broader public assets in the surrounding community, such as schools and universities, clean water, faircompetition laws, quality standards, and market transparency.

Clusters are prominent in all successful and growing regional economies and play a crucial role in driving productivity, innovation, and competitiveness. Capable local suppliers foster greater logistical efficiency and ease of collaboration, as we have discussed. Stronger local capabilities in such areas as training, transportation services, and related industries also boost productivity. Without a supporting cluster, conversely, productivity suffers.

Deficiencies in the framework conditions surrounding the cluster also create internal costs for firms. Poor public education imposes productivity and remedial-training costs. Poor transportation infrastructure drives up the costs of logistics. Gender or racial discrimination reduces the pool of capable employees. Poverty limits the demand for products and leads to environmental degradation, unhealthy workers, and high security costs. As companies have increasingly become disconnected from their communities, however, their influence in solving these problems has waned even as their costs have grown.

Firms create shared value by building clusters to improve company productivity while addressing gaps or failures in the framework conditions surrounding the cluster. Efforts to develop or attract capable suppliers, for example, enable the procurement benefits we discussed earlier. A focus on clusters and location has been all but absent in management thinking. Cluster thinking has also been

Creating Shared Value: Implications for Government and

While our focus here is primarily on companies, the principles of shared value apply equally to governments and nonprofit organizations.

Governments and NGOs will be most effective if they think in value termsconsidering benefits relative to costs-and focus on the results achieved rather than the funds and effort expended. Activists have tended to approach social improvement from an ideological or absolutist perspective, as if social benefits should be pursued at any cost. Governments and NGOs often assume that trade-offs between economic and social benefits are inevitable, exacerbating these trade-offs through their approaches. For example, much environmental regulation still takes the form of command-and-control mandates and enforcement actions designed to embarrass and punish companies.

Regulators would accomplish much more by focusing on measuring environmental performance and introducing standards, phase-in periods, and support for technology that would promote innovation, improve the environment, and increase competitiveness simultaneously.

The principle of shared value creation cuts across the traditional divide between the responsibilities of business and those of government or civil society. From society's perspective, it does not matter what types of organizations created the value. What matters is that benefits are delivered by those organizations—or combinations of organizations—that are best positioned to achieve the most impact for the least cost. Finding ways to boost productivity is equally valuable whether in the service of commercial or societal objectives. In short, the principle of value creation should guide the use of resources across all areas of societal concern.

Fortunately, a new type of NGO has emerged that understands the importance of productivity and value creation. Such organizations have often had a remarkable impact. One example is TechnoServe, which has partnered with both regional and global corporations to promote the development of competitive agricultural clusters in more than 30 countries. Root Capital accomplishes a similar objective by providing financing to farmers and businesses that are too large for microfinance but too small for normal bank financing. Since 2000, Root Capital has lent more than \$200 million to 282 businesses, missing in many economic development initiatives, which have failed because they involved isolated interventions and overlooked critical complementary investments.

A key aspect of cluster building in developing and developed countries alike is the formation of open and transparent markets. In inefficient or monopolized markets where workers are exploited, where suppliers do not receive fair prices, and where price transparency is lacking, productivity suffers. Enabling fair and open markets, which is often best done in conjunction with partners, can allow a company to secure reliable supplies and give suppliers better incentives for quality and efficiency while also substantially improving the incomes and purchasing power of local citizens. A positive cycle of economic and social development results.

When a firm builds clusters in its key locations, it also amplifies the connection between its success and its communities' success. A firm's growth has multiplier effects, as jobs are created in supporting industries, new companies are seeded, and demand for ancillary services rises. A company's efforts to improve framework conditions for the cluster spill over to other participants and the local economy. Workforce development initiatives, for example, increase the supply of skilled employees for many other firms as well.

At Nespresso, Nestlé also worked to build clusters, which made its new procurement practices far more effective. It set out to build agricultural, technical, financial, and logistical firms and capabilities in each coffee region, to further support efficiency and high-quality local production. Nestlé led efforts to increase access to essential agricultural inputs such as plant stock, fertilizers, and irrigation equipment; strengthen regional farmer co-ops by helping them finance shared wet-milling facilities for producing higher-quality beans; and support an extension program to advise all farmers on growing techniques. It also worked in partnership with the Rainforest Alliance, a leading international NGO, to teach farmers more-sustainable practices that make production volumes more reliable. In the process, Nestlé's productivity improved.

Civil Society

through which it has reached 400,000 farmers and artisans. It has financed the cultivation of 1.4 million acres of organic agriculture in Latin America and Africa. Root Capital regularly works with corporations, utilizing future purchase orders as collateral for its loans to farmers and helping to strengthen corporate supply chains and improve the quality of purchased inputs.

Some private foundations have begun to see the power of working with businesses to create shared value. The Bill & Melinda Gates Foundation, for example, has formed partnerships with leading global corporations to foster agricultural clusters in developing countries. The foundation carefully focuses on commodities where climate and soil conditions give a particular region a true competitive advantage. The partnerships bring in NGOs like TechnoServe and Root Capital, as well as government officials, to work on precompetitive issues that improve the cluster and upgrade the value chain for all participants. This approach recognizes that helping small farmers increase their yields will not create any lasting benefits unless there are ready buyers for their crops, other enterprises that can process the crops once they are harvested, and a local cluster that includes efficient logistical infrastructure, input availability, and the like. The active engagement of corporations is essential to mobilizing these elements.

Forward-thinking foundations can also serve as honest brokers and allay fears by mitigating power imbalances between small local enterprises, NGOs, governments, and companies. Such efforts will require a new assumption that shared value can come only as a result of effective collaboration among all parties.

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Government Regulation and Shared Value

The right kind of government regulation can encourage companies to pursue shared value; the wrong kind works against it and even makes tradeoffs between economic and social goals inevitable.

Regulation is necessary for wellfunctioning markets, something that became abundantly clear during the recent financial crisis. However, the ways in which regulations are designed and implemented determine whether they benefit society or work against it.

Regulations that enhance shared value set goals and stimulate innovation. They highlight a societal objective and create

a level playing field to encourage companies to invest in shared value rather than maximize short-term profit. Such regulations have a number of characteristics:

First, they set clear and measurable social goals, whether they involve energy use, health matters, or safety. Where appropriate, they set prices for resources (such as water) that reflect true costs. Second, they set performance standards but do not prescribe the methods to achieve them—those are left to companies. Third, they define phase-in periods for meeting standards, which reflect the investment or new-product cycle in the industry. Phasein periods give companies time to develop and introduce new products and processes in a way consistent with the economics of their business. Fourth, they

> put in place universal measurement and performancereporting systems, with government investing in infrastructure for collecting reliable benchmarking data (such as nutritional deficiencies in each community). This motivates and enables continual improvement beyond current targets. Finally, appropriate regulations require efficient and timely reporting of results, which can then be audited by the government as necessary, rather than impose

detailed and expensive compliance processes on everyone.

Regulation that discourages shared value looks very different. It forces compliance with particular practices, rather than focusing on measurable social improvement. It mandates a particular approach to meeting a standard—blocking innovation and almost always inflicting cost on companies. When governments fall into the trap of this sort of regulation, they undermine the very progress that they seek while triggering fierce resistance from business that slows progress further and blocks shared value that would improve competitiveness.

To be sure, companies locked into the old mind-set will resist even wellconstructed regulation. As shared value principles become more widely accepted, however, business and government will become more aligned on regulation in many areas. Companies will come to understand that the right kind of regulation can actually foster economic value creation.

Finally, regulation will be needed to limit the pursuit of exploitative, unfair, or deceptive practices in which companies benefit at the expense of society. Strict antitrust policy, for example, is essential to ensure that the benefits of company success flow to customers, suppliers, and workers.

A good example of a company working to improve framework conditions in its cluster is Yara, the world's largest mineral fertilizer company. Yara realized that the lack of logistical infrastructure in many parts of Africa was preventing farmers from gaining efficient access to fertilizers and other essential agricultural inputs, and from transporting their crops efficiently to market. Yara is tackling this problem through a \$60 million investment in a program to improve ports and roads, which is designed to create agricultural growth corridors in Mozambique and Tanzania. The company is working on this initiative with local governments and support from the Norwegian government. In Mozambique alone, the corridor is expected to benefit more than 200,000 small farmers and create 350,000 new jobs. The improvements will help Yara grow its business but will support the whole agricultural cluster, creating huge multiplier effects.

The benefits of cluster building apply not only in emerging economies but also in advanced countries. North Carolina's Research Triangle is a notable example of public and private collaboration that has created shared value by developing clusters in such areas as information technology and life sciences. That region, which has benefited from continued investment from both the private sector and local government, has experienced huge growth in employment, incomes, and company performance, and has fared better than most during the downturn.

To support cluster development in the communities in which they operate, companies need to identify gaps and deficiencies in areas such as logistics, suppliers, distribution channels, training, market organization, and educational institutions. Then the task is to focus on the weaknesses that represent the greatest constraints to the company's own productivity and growth, and distinguish those areas that the company is best equipped to influence directly from those in which collaboration is more costeffective. Here is where the shared value opportunities will be greatest. Initiatives that address cluster weaknesses that constrain companies will be much more effective than community-focused corporate social responsibility programs, which often have ternal influences on corporate success. It highlights the immense human needs to be met, the large new markets to serve, and the internal costs of social and community deficits—as well as the competitive advantages available from addressing them. Until recently, companies have simply not approached their businesses this way.

Creating shared value will be more effective and far more sustainable than the majority of today's corporate efforts in the social arena. Companies will make real strides on the environment, for example, when they treat it as a productivity driver rather than a feel-good response to external pressure. Or consider

Not all profit is equal. Profits involving a social purpose represent a higher form of capitalism, one that creates a positive cycle of company and community prosperity.

limited impact because they take on too many areas without focusing on value.

But efforts to enhance infrastructure and institutions in a region often require collective action, as the Nestlé, Yara, and Research Triangle examples show. Companies should try to enlist partners to share the cost, win support, and assemble the right skills. The most successful cluster development programs are ones that involve collaboration within the private sector, as well as trade associations, government agencies, and NGOs.

Creating Shared Value in Practice

Not all profit is equal—an idea that has been lost in the narrow, short-term focus of financial markets and in much management thinking. Profits involving a social purpose represent a higher form of capitalism—one that will enable society to advance more rapidly while allowing companies to grow even more. The result is a positive cycle of company and community prosperity, which leads to profits that endure.

Creating shared value presumes compliance with the law and ethical standards, as well as mitigating any harm caused by the business, but goes far beyond that. The opportunity to create economic value through creating societal value will be one of the most powerful forces driving growth in the global economy. This thinking represents a new way of understanding customers, productivity, and the exaccess to housing. A shared value approach would have led financial services companies to create innovative products that prudently increased access to home ownership. This was recognized by the Mexican construction company Urbi, which pioneered a mortgage-financing "rent-to-own" plan. Major U.S. banks, in contrast, promoted unsustainable financing vehicles that turned out to be socially and economically devastating, while claiming they were socially responsible because they had charitable contribution programs.

Inevitably, the most fertile opportunities for creating shared value will be closely related to a company's particular business, and in areas most important to the business. Here a company can benefit the most economically and hence sustain its commitment over time. Here is also where a company brings the most resources to bear, and where its scale and market presence equip it to have a meaningful impact on a societal problem.

Ironically, many of the shared value pioneers have been those with more-limited resources—social entrepreneurs and companies in developing countries. These outsiders have been able to see the opportunities more clearly. In the process, the distinction between for-profits and nonprofits is blurring.

Shared value is defining a whole new set of best practices that all companies must embrace. It will also become an integral part of strategy. The essence of strategy is choosing a unique positioning and a distinctive value chain to deliver on it. Shared value opens up many new needs to meet, new products to offer, new customers to serve, and new ways to configure the value chain. And the competitive advantages that arise from creating shared value will often be more sustainable than conventional cost and quality improvements. The cycle of imitation and zero-sum competition can be broken.

The opportunities to create shared value are widespread and growing. Not every company will have them in every area, but our experience has been that companies discover more and more opportunities over time as their line operating units grasp this concept. It has taken a decade, but GE's Ecomagi-

HOW SHARED VALUE DIFFERS FROM CORPORATE SOCIAL RESPONSIBILITY

Creating shared value (CSV) should supersede corporate social responsibility (CSR) in guiding the investments of companies in their communities. CSR programs focus mostly on reputation and have only a limited connection to the business, making them hard to justify and maintain over the long run. In contrast, CSV is integral to a company's profitability and competitive position. It leverages the unique resources and expertise of the company to create economic value by creating social value.

CSR CSV

- > Value: doing good
- Citizenship, philanthropy, sustainability
- Discretionary or in response to external pressure
- Separate from profit maximization
- Agenda is determined by external reporting and personal preferences
- Impact limited by corporate footprint and CSR budget
- Example: Fair trade purchasing

 Value: economic and societal benefits relative to cost

- Joint company and community value creation
- Integral to competing
- > Integral to profit maximization
- Agenda is company specific and internally generated
- Realigns the entire company budget

Example: Transforming procurement to increase quality and yield

In both cases, compliance with laws and ethical standards and reducing harm from corporate activities are assumed.

nation initiative, for example, is now producing a stream of fast-growing products and services across the company.

A shared value lens can be applied to every major company decision. Could our product design incorporate greater social benefits? Are we serving all the communities that would benefit from our products? Do our processes and logistical approaches maximize efficiencies in energy and water use? Could our new plant be constructed in a way that achieves greater community impact? How are gaps in our cluster holding back our efficiency and speed of innovation? How could we enhance our community as a business location? If sites are comparable economically, at which one will the local community benefit the most? If a company can improve societal conditions, it will often improve business conditions and thereby trigger positive feedback loops.

The three avenues for creating shared value are mutually reinforcing. Enhancing the cluster, for example, will enable more local procurement and less dispersed supply chains. New products and services that meet social needs or serve overlooked markets will require new value chain choices in areas such as production, marketing, and distribution. And new value chain configurations will create demand for equipment and technology that save energy, conserve resources, and support employees.

Creating shared value will require concrete and tailored metrics for each business unit in each of the three areas. While some companies have begun to track various social impacts, few have yet tied them to their economic interests at the business level.

Shared value creation will involve new and heightened forms of collaboration. While some shared value opportunities are possible for a company to seize on its own, others will benefit from insights, skills, and resources that cut across profit/ nonprofit and private/public boundaries. Here, companies will be less successful if they attempt to tackle societal problems on their own, especially those involving cluster development. Major competitors may also need to work together on precompetitive framework conditions, something that has not been common in reputation-driven CSR initiatives. Successful collaboration will be data driven, clearly linked to defined outcomes, well connected to the goals of all stakeholders, and tracked with clear metrics.

Governments and NGOs can enable and reinforce shared value or work against it. (For more on this

topic, see the sidebar "Government Regulation and Shared Value.")

The Next Evolution in Capitalism

Shared value holds the key to unlocking the next wave of business innovation and growth. It will also reconnect company success and community success in ways that have been lost in an age of narrow management approaches, short-term thinking, and deepening divides among society's institutions.

Shared value focuses companies on the right kind of profits—profits that create societal benefits rather than diminish them. Capital markets will undoubtedly continue to pressure companies to generate short-term profits, and some companies will surely continue to reap profits at the expense of societal needs. But such profits will often prove to be shortlived, and far greater opportunities will be missed.

The moment for an expanded view of value creation has come. A host of factors, such as the growing social awareness of employees and citizens and the increased scarcity of natural resources, will drive unprecedented opportunities to create shared value.

We need a more sophisticated form of capitalism, one imbued with a social purpose. But that purpose should arise not out of charity but out of a deeper understanding of competition and economic value creation. This next evolution in the capitalist model recognizes new and better ways to develop products, serve markets, and build productive enterprises.

Creating shared value represents a broader conception of Adam Smith's invisible hand. It opens the doors of the pin factory to a wider set of influences. It is not philanthropy but self-interested behavior to create economic value by creating societal value. If all companies individually pursued shared value connected to their particular businesses, society's overall interests would be served. And companies would acquire legitimacy in the eyes of the communities in which they operated, which would allow democracy to work as governments set policies that fostered and supported business. Survival of the fittest would still prevail, but market competition would benefit society in ways we have lost.

Creating shared value represents a new approach to managing that cuts across disciplines. Because of the traditional divide between economic concerns and social ones, people in the public and private sectors have often followed very different educational and career paths. As a result, few managers have the understanding of social and environmental issues required to move beyond today's CSR approaches, and few social sector leaders have the managerial training and entrepreneurial mind-set needed to design and implement shared value models. Most business schools still teach the narrow view of capitalism, even though more and more of their graduates hunger for a greater sense of purpose and a growing number are drawn to social entrepreneurship. The results have been missed opportunity and public cynicism.

Business school curricula will need to broaden in a number of areas. For example, the efficient use and stewardship of all forms of resources will define the next-generation thinking on value chains. Customer behavior and marketing courses will have to move beyond persuasion and demand creation to the study of deeper human needs and how to serve nontraditional customer groups. Clusters, and the broader locational influences on company productivity and innovation, will form a new core discipline in business schools; economic development will no longer be left only to public policy and economics departments. Business and government courses will examine the economic impact of societal factors on enterprises, moving beyond the effects of regulation and macroeconomics. And finance will need to rethink how capital markets can actually support true value creation in companies-their fundamental purpose-not just benefit financial market participants.

There is nothing soft about the concept of shared value. These proposed changes in business school curricula are not qualitative and do not depart from economic value creation. Instead, they represent the next stage in our understanding of markets, competition, and business management.

NOT ALL societal problems can be solved through shared value solutions. But shared value offers corporations the opportunity to utilize their skills, resources, and management capability to lead social progress in ways that even the best-intentioned governmental and social sector organizations can rarely match. In the process, businesses can earn the respect of society again. ♥

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