KELLEY
SCHOOL OF BUSINESS

How Businesses Can Launch

Practical Sustainability Strategies

Realistic, applicable business sustainability practices for firms in any industry.

Contents

Sustainability is relevant across all industries.
Whether your company produces industrial tools or digital marketing plans, there are methods for improving operations that not only make you a better steward of your available resources, but could also yield large-scale savings and growth.

Sustainability is more than saying you care about the environment or employee working conditions.
Business leaders who think of sustainable practices as costly, "nice to have" luxury strategies are missing out on the big picture. These operational tactics ultimately save you money in the long run. Your competitors—and your customers—are probably thinking about sustainability. You should, too.

Sustainable opportunities are often right in front of you.
When we begin working with firms to implement sustainable strategies, we often discover low-hanging fruit that can provide quick wins for your bottom line.

Sustainability isn't going away.
By identifying and adopting effective sustainability strategies, your firm can develop a well-rounded, cost-effective, and responsible business plan that supports innovative growth, now and in the future.

Investor Expectations around Sustainability
Investors are now have expectations on company ESG plans and targets. Investors want companies to detail what their sustainability targets are and be clear on milestones to accomplish these targets. Investors will become a significant driver for businesses to have their ESG plans in place now and for the future.

AMROU AWAYSHEH

Amrou Awaysheh, Ph.D., is founder and executive director of the Indiana University Business Sustainability Lab and an assistant professor of operations management at the IU Kelley School of Business. Since 2008, Awaysheh has managed and participated in over 60 global corporate social responsibility initiatives with Fortune 500 companies, working to strengthen their financial and sustainability performance. The cumulative impact of these projects has resulted in savings of over $2.1 billion and revenue increases of over $1.3 Billion. Combined, these projects directed approximately $425 million in investments. This work has found that firms can reap substantial benefits by focusing largely on reducing resource consumption, such as energy and water, and eliminating waste generation within their operations. This paper is intended to share the most effective approaches that Awaysheh has identified, enabling firms to begin implementing efficient changes that work on their journey to business sustainability.

What is business sustainability?

Overview

Often regarded as a murky, abstract term, sustainability essentially means effective use of your firm's operations and resources. Whether it's in your inputs, outputs, or processes, sustainability ultimately shows up as efficient operations. By designing your everyday operations and supply chain around sustainability, your company can leverage these tactics to its competitive advantage.

For some industries, sustainable practices are a legal requirement, such as those that preserve natural resources, protect the environment, and safeguard worker health. Non-compliance risks production delays, closures, or negative press. By taking proactive steps toward sustainability, a firm improves its standing as a good corporate citizen with a reputation that attracts top talent, improves access to markets, and garners trust from the community.[1]

Sustainable practices can also reduce a firm's costs by cutting down on expenses like waste removal and on inputs like raw materials. But these strategies can go even further toward reducing a company's liabilities by lowering the environmental impact and any related cleanup obligations.[1]

Embracing sustainability is also a marketable attribute worth sharing with your customers. In fact, modern consumers report that corporate values often outweigh the cost or convenience of a product. A 2020 poll of 19,000 consumers of all ages and incomes from 28 countries revealed that they pay much higher premiums for products aligned with their personal beliefs.[2] About 70 percent of these "purpose-driven shoppers" are willing to pay 35 percent more for sustainable purchases, like recycled or eco-friendly goods. Nearly 60 percent of these consumers said they would change their purchasing habits to be more environmentally friendly.

19,000
CONSUMERS

28
COUNTRIES

70%
WOULD PAY MORE

60%
WOULD CHANGE

BENEFITS TO BUSINESS SUSTAINABILITY

- **Build customer loyalty**
- **Improve risk management**
- **Drive innovation**
- **Improve financial performance**
- **Attract and engage employees**

There are valuable and practical business reasons for implementing sustainable strategies: to build customer loyalty, improve risk management, drive innovation, improve financial performance, or attract and engage employees, for example.[3] And as more firms recognize these benefits, sustainability will increasingly be a differentiator among competitors.

Sustainability is also integral to the survival or any business. Even if you aren't thinking about sustainability, your competitors—and your clients—likely are. Rival firms who work to improve performance, lower costs, generate more customer excitement, and enter new markets are the ones who survive long term.

Finding Sustainable Opportunities

Virtually any business can find opportunities for sustainability in its operations and supply chain – whether it provides steel to a factory floor or keeps ink stocked in the printers of a graphic design studio. These domains are where companies can convert environmental, social, and governance (ESG) targets into actionable process changes that have a genuine impact on ESG performance. Through efficient use of inputs, processes, outputs, and partnerships, companies can realize more efficient operations that make better use of raw supplies, energy, and consumption.

Each year, an enormous amount resources are wasted in the United States:

- **WASTE:** U.S. manufacturers generated 25.86 billion pounds of waste in 2019. Of that, 15.74 billion pounds were recycled, and the rest was treated or incinerated, leaving 1.43 billion pounds of waste in landfills.[4]
- **CO2 EMISSIONS:** The United States generates 5.3 billion tons of CO2 annually,[5] with 1.42 billion tons coming from manufacturing.[4]
- **WATER:** U.S. manufacturing consumes 20.7 trillion gallons of the country's total consumption of 117.5 trillion gallons of water annually.[6]
- **ENERGY:** U.S. manufacturing used 26.62 quadrillion (26,620,000,000,000,000) BTUs (British thermal units) for building heating and feedstocks in 2019. By comparison, a typical American household consumes about 149 million (149,000,000) BTUs a year.[7]

While the sheer volume of resources wasted annually may appear staggering, these figures illustrate the opportunity for savings. With each step a firm takes to make its operations and supply chain more efficient, savings can multiply across the company, its locations, and potentially the globe.

These benefits are not limited to the manufacturing sector, which comprises only a fraction of the overall resources wasted across the globe. The service economy also affects sustainability in ways that aren't fully measured. According to the World Bank, the global service industry's share of gross domestic product (GDP) grew to nearly 69 percent by 2015, compared to the manufacturing industry's share of GDP, which has fallen to 27 percent globally.[8] Along with this growth trajectory are emerging opportunities for effective sustainable practices.

Sustainability on a Global Scale

The United Nations launched an urgent global call to action with its 2030 Agenda for Sustainable Development, in which member states adopted 17 Sustainable Development Goals (SDG). In addition to alleviating several humanitarian concerns, these strategies also aim to spur economic growth in developed and developing countries while addressing climate change and preserving oceans and forests. Among the 17 SDG goals are six that directly address sustainability in business:

- **Clean Water & Sanitation:** Ensure availability and sustainable management of water and sanitation for all.
- **Affordable & Clean Energy:** Ensure access to affordable, reliable, sustainable, and modern energy for all.
- **Decent Work & Economic Growth:** Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
- **Industry, Innovation & Infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
- **Reduced Inequalities:** Reduce income, wealth, and other inequalities within and among countries around the globe.
- **Responsible Consumption & Production:** Ensure sustainable consumption of resources and production patterns.

Provided by U.N.: https://sdgs.un.org/goals

Many global companies including **General Motors**, **Chevron**, and **Tata Power** have translated these SDG goals into targets for mapping their own strategic priorities. The agenda for the next decade of sustainable business has been set, and prudent firms everywhere are aligning themselves appropriately.

What Sustainable Strategies Look Like in Action

Many global industry leaders have applied internal benchmarking, the multiplier effect, and top- and bottom-down approaches to realize savings from sustainable strategies. These opportunities are often found within a firm's inputs, processes, outputs, suppliers, and scale. We have collaborated with several global firms to help them integrate sustainable practices. Here are some examples:

INPUTS: Colgate-Palmolive

As part of its 2015 Sustainability & Social Impact Strategy, multinational consumer products company Colgate-Palmolive announced plans to source 100 percent renewable electricity for its global operations by 2030.[9] To tackle other environmental targets related to the company's inputs, Colgate also set goals to earn 100 percent TRUE Zero Waste certification for global operations and build all new manufacturing sites that would be LEED certified by 2025. The company has also set its sights on achieving net zero carbon emissions in global operations by 2040.

In addition, Colgate is working to encourage its consumers to produce less waste. The company plans to eliminate a third of new plastics as part of its transition to 100 percent recyclable, reusable, or compostable plastic packaging by 2025. To achieve these goals for plastics, the company launched its first vegan toothpaste sold in recyclable tubes in Europe, and plans to share the packaging technology with industry rivals. By managing its inputs, Colgate-Palmolive is making its operations more sustainable.

PROCESSES: The Coca-Cola Company

The global beverage company has been working to reduce the carbon footprint of "the drink in your hand" since 2013.[10] One of the latest successful initiatives was an effort to cut waste, reduce water consumption, and lower emissions through more efficient and sustainable bottling processes. Sustainable measures to reduce Coca-Cola's carbon footprint at its plant in Edelstal, Austria, include:

- Investing in new machines and systems to reduce consumption of resources like water and energy. Its new bottling line is one of the fastest—and most efficient—in the world, filling 45,000 glass bottles per hour, or about 12 bottles per second.
- Replacing high-pressure compressors for the plastic molding machines with ones that consume between 5 to 8 percent less electricity.
- Powering the plant with electricity from 100 percent renewable sources.
- Tracking these changes with a new energy management system that provides detailed analyses of the plant's resource and energy consumption.

Through a focused effort on improving the efficiency and sustainability of its processes, Coca-Cola is reaping benefits through manufacturing.

SUPPLIERS: Dole

One of the largest global producers of fruits and vegetables, Dole Food Company employs workers in rural areas worldwide. With bold goals to achieve net zero CO2 emissions at the farm level by 2030 and reach 100 percent optimized water management on all its managed farms and packing facilities by 2025, Dole is collaborating in new ways with its global suppliers.[11]

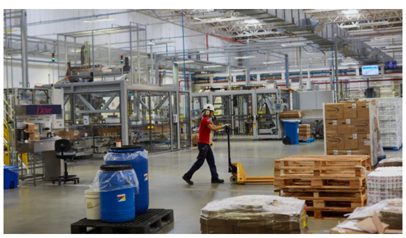
- The company worked with local stakeholder groups to develop a corporate social responsibility program that supports over 82,000 people with health, education, and other services.
- Having farmed organically for more than 20 years, the company educates and works with employees and key suppliers to implement strict environmental standards.
- Dole adopted international standards to audit and validate its operations, including Fair Trade, Rainforest Alliance, and ISO 14001.
- The company enacted employment practices that focus on collaboration with worker-elected representatives and adopted the International Labour Organization's non-discrimination policy.
- By bringing employees and farmers on board with its sustainable goals and practices, Dole is leaning on supply chain partnerships to achieve sustainability wins.

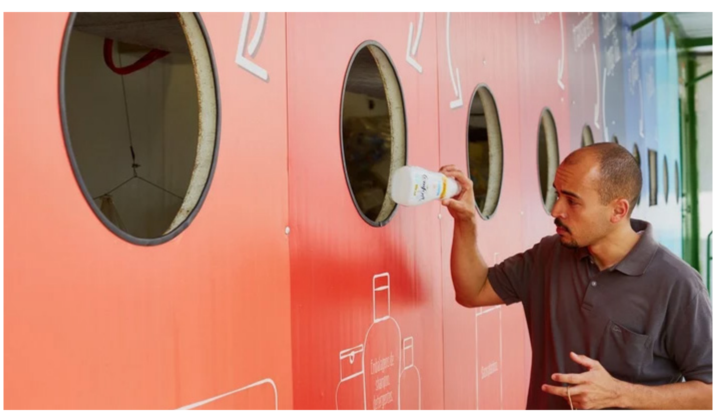
OUTPUTS: Unilever

One of the world's largest consumer goods companies, Unilever achieved zero waste to landfill (ZWL) designation by reconsidering waste as a resource. Through a series of innovative solutions replicated across the company, Unilever consolidated its waste contractors, applied traditional recycling methods, sent small volumes of waste to be converted into energy, and turned waste into usable goods, such as roofing, fencing, and decorative building blocks.13

By making the move to ZWL throughout its global network of more than 240 factories in 67 countries, Unilever saved 220 million euros and created 1,000 jobs in the process.[14] An increase in recycled cardboard alone is the emissions-reduction equivalent to taking 10,000 cars off the road.[13] Unilever also collaborated on this work with several other corporations, small businesses, and even schoolchildren, gaining the company greater buy-in from the community.

Unilever's approach demonstrates how large-scale sustainability efforts multiplied over several locations can create a sizable impact on both sustainability and the company's bottom line. The project also generated dozens of news and internal articles about the success of these initiatives, signaling to customers that Unilever is a company concerned with appropriate use of resources, the environment, and its connection to the community.





LEVERAGING SCALE: Walmart

Large companies have a scale of operations that allows them to enact widespread change. When multinational retailer Walmart recognized that most emissions in the retail sector occur in product supply chains rather than stores and distribution centers, it decided to engage suppliers, NGOs, and other stakeholders in its climate action initiative to widen the reach of its sustainability practices.

By 2030, Walmart's Project Gigaton aims to eliminate 1 billion metric tons (a gigaton) of greenhouse gases from the global value chain by leveraging scale with its partners.

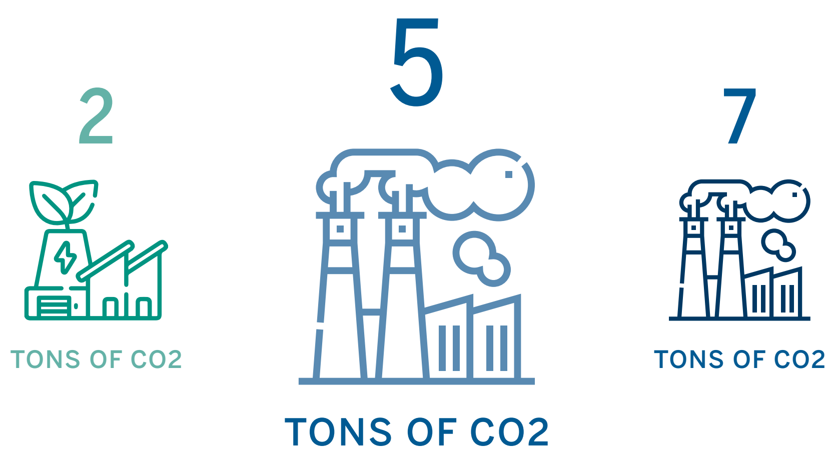
When Walmart's suppliers sign up for Project Gigaton, they agree to set S.M.A.R.T (specific, measurable, achievable, relevant, and time-bound) goals, report annual progress, and gain public recognition for their efforts in the areas of energy, waste, packaging, agriculture, forests, or product use. More than 2,300 suppliers are currently signed on to Project Gigaton, making it one of the largest private consortiums for climate action.[12]

Strategies That Work

While sustainable strategies may seem like admirable, lofty goals, they are ultimately concrete concepts that business can successfully apply to any type of firm or industry. This journey begins with a deep, honest analysis of a company's current operations to start identifying opportunities for greater efficiency and more effective use of resources.

Internal Benchmarking

In the pursuit of improvement, business leaders frequently seek out external best practices, but often the most prudent starting point is within the firm itself. A manufacturer can take a broad look at its operations to identify the outlier: the most efficient factory, the best production line, or the most productive division. Examine that outlier under a microscope: Why does one factory only emit 2 tons of CO_2 to make one product, but all the other factories emit up to 7 tons? Once you've identified how to bring all lower performing plants closer to the average of 5 tons per product, you have a road map toward greater sustainable practices—and cost savings—that can be replicated across an entire company.



Once you normalize any variables to ensure you're comparing apples to apples, internal benchmarking produces realistic insights into a firm's potential and provides leaders with a practical way to move the needle. Once a firm can identify a best in class (BIC)—the factory producing only 2 tons of CO_2—these best practices can be compared both internally and externally to understand the BIC compared to the entire industry.

Internal benchmarking also reveals the worst in class (WIC) performer, allowing leadership to understand the range of possible explanations, then identify steps to bring an outlier toward better outcomes. Through this internal analysis, firms gather insights and capabilities that can be borrowed from one division and applied to other locations to improve the company's average.

External Benchmarking

Once a firm has taken a deep look within its own operations to identify best (and worst) practices, it's helpful to compare these metrics against what its peers are achieving. Through external benchmarking, firms can find fresh ideas for sustainable practices that can be retrofitted to drive change within their own organizations.

Several third-party providers offer ESG reports and ratings of public and private companies, which can serve as a baseline for external benchmarking. Stakeholders—from institutional investors and asset managers to financial institutions—increasingly rely on these ratings to understand a firm's ESG compared to its peers, which can in turn guide investor engagement.[15] While the methodologies and scope of ESG report and ratings providers may vary, these outfits often encourage personalized interaction with subject companies to improve or correct data. ESG data providers include Bloomberg's ESG data, MSCI Sustainability data, and , Corporate Knights Global 100, and the Dow Jones Sustainability Index. Understanding these offerings can help firms complete external benchmarking while also seeing how their ESG performance is reported publicly.

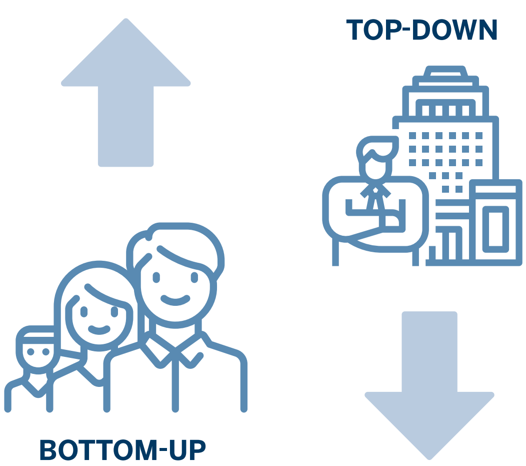
Multiplier Effect

It may be easy for business leaders to disregard sustainable strategies as small, one-off endeavors without wide impact. However, the multiplier effect ensures that improvements are exponential: using 1 gallon less of water to make 1 unit can be multiplied by a million units a year, resulting in millions—and even billions—in savings for the company. This multiplier effect has real financial implications that leaders can promote to stakeholders.

A company can replicate successful multipliers across its entire network. Consider a company with multiple factories: by developing and enacting policies that improve one factory's competitiveness, the firm can transfer that expertise to all other factories under its management. The savings can be further multiplied as the competitive advantage is extended to additional facilities. A company can also engage suppliers to capitalize on this new capability, allowing suppliers to improve their own reliability and competitive edge.

Bottom-Up or Top-Down Approaches

Business leaders can drive sustainability in two ways: through top-down or bottom-up maneuvers. Top-down strategies are systemic changes implemented through policy or company directives that are meant to drive immediate and widespread modifications. Examples of top-down strategies are a CEO instituting stricter usage rates, or driving for more energy efficiency across the plant network. Bottom-up strategies are those that emerge from the employees. These employee suggestions are very tactical and are directed at being able to have an impact on the operations, and the key to success is being able to roll them out. An example of this is an assembly line worker who discover how to produce an item with less water. Both strategies have powerful multiplier-effect implications and can be used in combination through a firm's sustainability strategy.



Company Enablers

When a company is ready to begin the process of internal benchmarking and crafting a sustainability plan, success is greater when the concept is supported by an individual or team of stakeholders willing to advocate for the plan. Company enablers are people who have the company's interest in mind and who believe in the goals of sustainability, understand its link to financial performance, and grasp the impact on the natural environment. Company enablers can champion the benefits of sustainability to senior management, helping gain the funding needed to launch strategies and begin realizing savings.

QUICK WINS

Once a firm begins focusing on sustainable opportunities, quick wins and low-hanging fruit often emerge. After the first successful strategy is applied and the resulting savings are realized, a firm can begin digging into other areas ripe for change:

1. **Energy efficiency:** How well do you use your energy sources or apply green energy?
2. **Waste:** What are you throwing out? Can your waste be reused or sold?
3. **Energy mix profile:** What is your most efficient mix of coal, wind, gas, or CO2 emissions?
4. **Carbon footprint:** How can you lower your greenhouse emissions, and thus, your costs?
5. **Water conservation:** How much are you paying for water in and water out of your facility?

The Problem

Wasted Value in U.S. Supply Chains

The amount of wasted resources generated by manufacturing in the United States leaves ample room for opportunity among sustainability-savvy firms. And service-based firms also face a number of issues related to sustainability. Regardless of a company's industry, its supply chain can have a significant impact on sustainability. As companies work with more international and diverse suppliers, it's crucial to understand the total impact of the end-to-end supply chain.

Contrary to the misconception that sustainability is needlessly expensive, implementing sustainable practices can help a firm recoup money spent in the supply chain. In fact, as government regulations on waste output require firms to evolve their practices, implementing sustainability steps can position your organization ahead of the curve.

A common misconception is that sustainable practices aren't regulated. A factory cannot legally pour waste down the drain and into waterways. The U.S. government already regulates this, and firms should be prepared for new areas of regulation in the future.

WASTE

U.S. manufacturers generated 25.86 billion pounds of waste in 2019. Of that, 15.74 billion pounds was recycled and the rest was treated or incinerated, leaving 1.43 billion pounds of waste in landfills.

U.S. Environmental Protection Agency

CO2 EMISSIONS

The U.S. generates 5.13 billion tons of CO2 annually, with 1.42 billion tons coming from manufacturing.

U.S. Energy Information Administration and EPA

WATER

U.S. manufacturing consumes 20.7 trillion gallons of water per year of the total U.S. annual consumption of 117.5 trillion gallons.

USGS

ENERGY

U.S. manufacturing used 26.62 quadrillion BTUs for building heating and feedstocks in 2019. For comparison, a typical American household uses about 149 million BTUs a year.

EIA

Our Impact

Since 2008, our sustainability projects have had a measurable impact on the natural environment. Learn more about the cumulative impact created by projects Awaysheh has led, managed or collaborated upon with companies around the globe. While these projects make measurable differences for each firm, they represent a fraction of the resources wasted each year in the United States.

Our Impact in 2019

Energy: 13.8 trillion BTUs of energy consumption saved

Water: 10.6 billion gallons of water not extracted

CO2: 2.8 million tons of CO2 emissions saved

Waste: 353,000 tons of waste diverted from landfills

Our Cumulative Impact Since 2008

Energy: 114 trillion BTUs of energy consumption

Water: 94 billion gallons of water not extracted

CO2: 22 million tons of CO2 emissions saved

Waste: 4.9 million tons of waste diverted from landfills

COMPANIES WE'VE HAD THE OPPORTUNITY TO PARTNER WITH:

AES
Airbus
Amazon
Coca Cola
Cummins
European Space Agency
GE
Goodwill
GSK
John Deere
Loop
Meritor
Molson Coors
PepsiCo
Roche Diagnostics
Ryder
Santander
Stanley Black & Decker
TerraCycle
Uber
Unilever
United Way
Whirlpool

Next Steps

Your firm's road to sustainable practices begins with a stakeholder like you who is willing to start small and stay the course. While launching these large-scale, long-haul improvements may seem like turning a ship, there are simple ways to prepare and successfully roll out strategic, sustainable practices:

- [ ] Understand your firm's potential to impact sustainability
- [ ] Identify goals, metrics for success, and deadlines for achieving them
- [ ] Work with your stakeholders to understand their expectations
- [ ] Pinpoint enablers within your organization who can champion sustainability efforts
- [ ] Identify low-hanging fruit to earn quick wins
- [ ] Demonstrate and communicate the business value of small projects
- [ ] Coordinate with multi-disciplinary teams to replicate successful measures across divisions
- [ ] Understand what is needed to be successful
- [ ] Quantify the compounded impact potential through the multiplier effect
- [ ] Clearly communicate the business case for the sustainability project
- [ ] Gain buy-in from senior leadership
- [ ] Execute on what you identified as achievable targets to get critical mass
- [ ] Monitor metrics for success and communicate milestones achieved
- [ ] Leverage wins to gain buy-in for larger, more ambitious projects

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