Expert Insights

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Sustainability as a business strategy

Winning with purpose-driven consumers

IBM **Institute for Business Value**

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Experts on this topic

Sachin Gupta

Global Agribusiness Offering Leader
guptas@sg.ibm.com
linkedin.com/in/sachin-gupta-a9ab853

Sachin is the global agribusiness offering leader. He is responsible for leading and integrating IBM products and services (including Systems, Software, Weather, Blockchain, Research, IoT and AI) to help transform the Agri & Food industry worldwide. Sachin is based in Singapore.

Sheila O’Hara

Consumer Industry Solution Architect
Sheila.ohara@fr.ibm.com
linkedin.com/in/sheilaohara1

Sheila is based in the IBM Industry Solution Center in Paris. She provides guidance and demonstrates to customers how to apply technologies to differentiate with insights, innovate rapidly and support the transition to a sustainable business agenda.

The rise of the "purpose-driven" consumer will have a pronounced effect on driving sustainability.

Key takeaways

The right approach
Sustainability as business strategy requires unified planning, diligence and execution across the entire value chain.

The right standards
Creating and accepting common standards can help address industry fragmentation and localization.

The right execution
Consumer companies should focus on creating product-level sustainability targets—and making them visible—in addition to setting organization-level targets.

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The rise of sustainability as a business imperative

Sustainability is certainly not a new idea. During the 1970s, in the wake of mass industrialization, the need for alternate sources of energy that would reduce reliance on fossil fuels emerged, and with it, the notion of tapping renewable sources that could be sustained indefinitely—not inevitably exhausted.

In the ensuing 50 years, though, we've seen the perception of sustainability move from a noble—but perhaps unrealistic—goal to a target increasingly set by government regulation, then to a nice-to-have corporate brand enhancer. Now it has become a boardroom and operational imperative focused on growth, resilience and competitive advantage.

A related Institute for Business Value (IBV) report, "The rise of the sustainable enterprise," found that the top five business risks are linked to environmental challenges: extreme weather, climate action failure, natural disasters, bio-diversity loss and human-made disasters. It also outlined the basic forces across all industries shaping the shift of sustainability to a true business imperative: increased investor evaluation of a company's environmental, social and governance (ESG) record; the strong pull from customers and employees concerned with sustainability; and government regulation and incentives.[1]

It concluded that these forces are combining to create a major business opportunity: "Together these forces are shaping a new corporate agenda, with 62% of executives considering a sustainability strategy not as nice-to-have but, in fact, essential in order to be competitive. Another 22% think it will be a requirement in the future. The environmental imperative has rightly planted itself in the heart of boardroom and operational management conversations."[2]

Indeed, most large companies now routinely tout decarbonization strategies, along with goals for becoming "carbon neutral"—the attempt to offset emissions with carbon sequestration. For the consumer industry, some of these forces are having a more pronounced effect, perhaps none more than the rise of the so-called "purpose-driven" consumer.

Sustainable ways of doing business can help mitigate risk, protecting supply chains from climate-change risks, for example.

Four forces shaping consumer industry sustainability

1. The rise of purpose-driven consumers

Consumers are increasingly emphasizing sustainability, leading to the rise of the purpose-driven consumer who values the societal and environmental impact of consumption highly enough to change buying behavior. A recent IBV study found that nearly 80% of consumers indicate sustainability is important to them and nearly 60% are willing to change their shopping habits to reduce environmental impact. Among the most purpose-driven, over 70% would pay a premium of 35%, on average, for brands that are sustainable and environmentally responsible.[3]

What's more, the pandemic has increased sustainability's importance. According to another recent IBV study, because of the pandemic, 40% of consumers are factoring in sustainability more when they choose a brand and when they shop. And this increased importance ranked even higher in emerging countries like China (61%), India (50%), and Brazil (44%).[4]

2. Brands reevaluate their purpose and value

Consumer companies are also learning that sustainability can confer distinct business advantages. Sustainable ways of doing business, for example, can help mitigate risk. Operating sustainably can help protect supply chains from climate-change risks and those associated with the long-term sourcing of raw materials—making them less exposed to the volatility of resource prices.

New business models in the consumer industry have emerged that help lower operational costs significantly by being energy efficient, tapping renewable energy sources, and reducing carbon emissions. For example, companies such as Limeloop are exploring alternative shipping methods and flows to drastically reduce package waste, including a platform that enables reverse logistics.[5] Or consider Starbucks' incentives to encourage customers to bring in their own cups to refill.[6] These models are demonstrating that longer-term sustainability plans do not necessarily have to raise costs for a company.

Consumer companies are also learning from these new models that sustainability can support growth by deepening brand equity, opening up new markets and inspiring innovation. Consider the Loop product reuse initiative.[7] Consumer brands can join and use durable containers—instead of disposable ones—that are designed for a consumer to be able to refill with the same product, or easily return so that the container can be reused. The system seeks to make reusable consumption and its associated sustainability benefits simpler for the consumer and for the brand. Instead of asking brands to develop and install product filling stations in stores, Loop handles the return and refilling part of the equation. Burger King recently announced it will be testing the concept in Tokyo, Portland and New York.[8]

3. Investors expect companies to be more resilient

But it's not only consumers who are driving change for the consumer industry. Investors are increasingly seeing consistent returns and better resiliency from companies having higher ESG scores. Hence, they are demanding portfolio companies to assess and manage all sustainability-based risks. In early 2020, Blackrock, the largest money manager in the world, announced "that sustainability should be our new standard for investing." To raise capital for future growth, it will thus be increasingly important that companies align their business activities with sustainability objectives.[9]

Sustainability funds were experiencing big growth before coronavirus: assets doubled over the past three years, according to a new Morningstar report.[10] Impact-investing index funds have topped $250 billion, and the U.S. market is now 20% of the total.[11] During COVID-19, Index funds investing in companies that rate highly on ESG factors have experienced a boost, with increased interest in stakeholder capitalism.[12]

4. Incentives for green initiatives

And then there's government oversight, which is increasingly focused on encouraging sustainability through incentives, as opposed to relying primarily on regulation and compliance. Some governments are pursuing a hybrid approach: introducing incentives for cleaner and greener processes while taxing the ones that pollute.[13]

Some in the private sector aren't waiting for government action. Walmart, for example, is planning to help suppliers join forces to buy green energy to help achieve its goal to achieve net carbon zero emission by 2040.[14]

The result of these forces acting on the consumer industry? Sustainability has taken center stage for consumer company strategy and operations. In particular, consumer businesses need to think holistically and innovatively across their entire value chains. They need to set standards for sustainable practices—including those that enable transparency and traceability—that earn trust from purpose-driven consumers. And they need to apply this thinking and practice, not just to their organizations as a whole, but to each of their products—the level that will resonate most with purpose-driven consumers making a buying decision.

The value chain and holistic, innovative sustainability transformation

For all industries—but especially for the consumer industry—sustainability requires understanding and action across an entire value chain. In turn, this means a company must have an integrated, unified view of that value chain. It cannot examine and act in individual silos and hope to be successful (see Figure 1).

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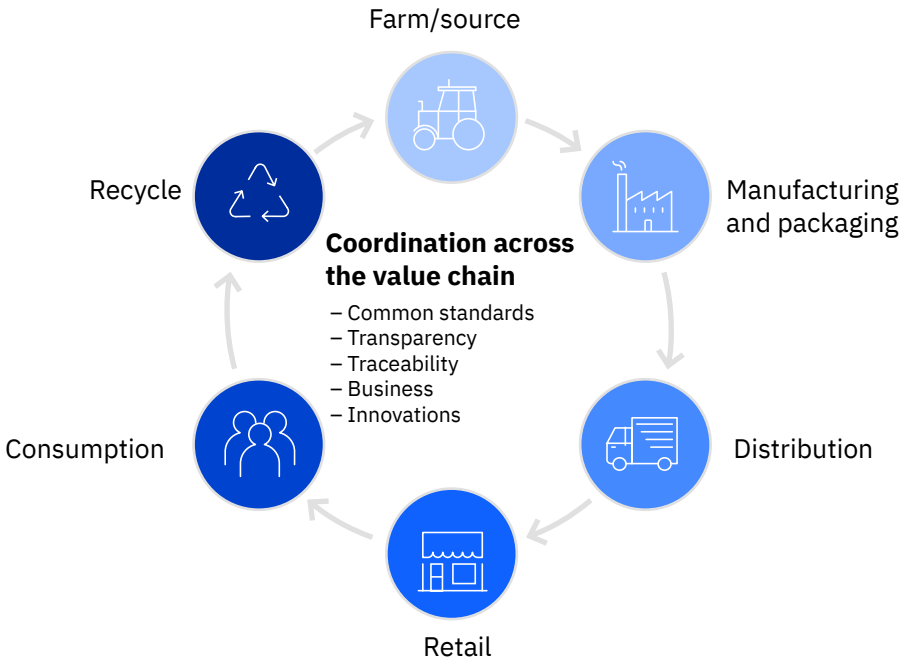
Figure 1

A unified view for sustainability—True transformation requires integration across a value chain



Source: IBM Institute for Business Value.

54% of global consumers are willing to change their holiday purchasing habits to help reduce environmental impact.

For example, consumers switching to electric cars might think they are contributing to a greener environment. But without knowing how the electricity was generated, we can't be sure. If the electricity was generated by burning coal, we might actually be doing greater environmental damage. Or without considering how storage devices in the car function and are disposed of—do they contain heavy metals impossible to recycle safely?—we'd only be getting a partial view of how sustainable our purchase and use of an electric vehicle really was.

This example can be extrapolated to farming. Take the recent ubiquity of the avocado.[15] Avocado consumption has increased ten-fold in the western world thanks to their high unsaturated fat content and other nutritional benefits. We might tend to think that consuming something healthy and natural is part of a sustainable lifestyle. But growing avocados is not, as it turns out, naturally sustainable. Quite the opposite.

In fact, current growing practices exact a real environmental and, according to some sources, social toll.[16] Avocados require large amounts of water, which in most areas means irrigation. As they've grown popular, forest land has been cleared to make way for their cultivation. And often, they are planted exclusively *en masse.* This practice, known as monoculture, increases the threat of pests, disease and nutrient depletion in the soil, which in turn leads to increased pesticide and fertilizer use, both of which increase the fruit's carbon footprint.

The challenge is not limited to avocados. Agriculture accounts for one-quarter of global greenhouse gas (GHG) emissions and is on the rise as food demand encourages more mechanized farming with increased use of fertilizers for greater production.[17] In addition, natural resources have been shrinking: one-third of arable land has been degraded, freshwater supplies overused and, in some areas, nearly exhausted, and deforestation and overfishing are damaging the biodiversity of the planet.[18]

Fortunately, the sustainability movement is driving a change in behavior confirmed by recent survey data: 54% of global consumers reported they are willing to change their holiday purchasing habits to help reduce environmental impact.[19] The question is, will this change in behavior be enough?

The answer: only if the entire value chain is mobilized as part of this change. Exponential technologies can help. New platforms that tap IoT devices to monitor activity across the value chain can use embedded artificial intelligence (AI) and advanced analytics to make sense of that activity. Blockchain can enable accurate, reliable transaction records that provide a common view of what's really going on.

In agriculture, mobilizing the value chain may begin with consumer expectations for more sustainably produced foods. But to drive progress, governments and farmers must also focus on improving soil fertility to support regenerative agriculture (see "Insight: 'What is regenerative agriculture?'"). And thought needs to be given on how best to transport the food and how far it can travel and still be considered sustainable. Members of the value chain can work together to innovate on viable business or operational models. Ideally, those that fare best will be models that support farmers to sustainably provide what consumers want.

Insight: What is “regenerative agriculture?”

Consumers care today, not just about the appearance and taste of the produce they buy, but also how it was grown. Organic foods have been available for some time, a category that emphasizes avoidance of synthetic fertilizers and pesticides, and demand continues to increase.[20] But for today’s enlightened consumers, that alone is insufficient. They want to know if it was produced sustainably, a question that is more complex, nuanced and difficult to answer. Enter the concept of regenerative agriculture.

Regenerative agriculture emphasizes soil stewardship and revitalization. Soil scientists estimate that, at current rates of soil destruction via decarbonization, erosion, desertification, and chemical pollution, within 50 years there will be insufficient arable topsoil to feed the planet.[21] By rebuilding organic matter in the soil and stimulating soil biodiversity, regenerative agriculture can help sequester carbon while enhancing the soil’s ability to retain water, lessening the need for excess irrigation.

Regenerative farming also includes practices to eliminate tillage in order to minimize mechanical disturbance of the soil, protecting its delicate structure—and especially its mycelial network, which extends a plant’s ability to extract water and nutrients from the soil.[22] Avoiding tillage also encourages a constant plant covering over the soil, protecting it from erosion.

Additionally, regenerative agriculture seeks to increase plant and animal biodiversity and integrate livestock—grazing livestock adds diversity to the products produced on the farm, adds value to cover crops, and recycles nutrients to the soil through manure.

The Norwegian company Yara, for instance, has launched a global digital farming platform that applies artificial intelligence, machine learning, in-field data, and weather data to unlock new insights for farmers to improve crop yields in a sustainable way.[23] The platform will help link farms to the full food chain and support the development of holistic food production from farm to fork.

A critical part of sustainability across the value chain is packaging. Sustainable packaging must support recycling. Packaging material and design is a powerful tool to make our lives simpler, our planet greener, and our businesses more profitable. It links the producer, the brand and the customer.[24]

Unfortunately, after the purchase, packaging is often relegated to the garbage bin with little thought. This, of course, will have to change to make the value chain sustainable. The good news: it’s beginning to happen.

For example, Plastic Bank uses blockchain technology to track the entire journey of plastic packaging.[25] It is creating a recycling ecosystem where members receive a premium for the materials they collect. For many, this helps provide basic family necessities, such as groceries, cooking fuel, school tuition, and health insurance. It’s a win-win situation: major international companies like SC Johnson and Henkel access ethically sourced, recycled Social Plastic to be used in packaging, while improving lives in vulnerable communities. The program helps empower a regenerative society.

A customer sipping a cup of coffee could immediately know the coffee's origin, journey and validated sustainability by scanning a QR code.

Achieving successful sustainability transformation

The consumer industry needs to become more sustainable. For brands to accrue the conferred benefits, the industry as a whole and, in some cases, value chains in particular, will need to take three steps:

- Set common standards
- Enable transparency and traceability, and
- Set sustainability targets for individual products, not just their companies.

Common standards for measurement and audit

Consumers cannot make useful decisions if they are confused about the claims a brand or product makes, and the veracity of those claims. Returning to the example of an electric car, how best can a consumer understand the real environmental impact of purchasing and using one? If there is no common terminology and, more importantly, agreed-upon measurement standards, it will fall to each consumer to do deep research, often into areas that require some expertise to sort fact from fiction.

Appliances in some countries carry a standard way of depicting the projected energy use of the appliance and therefore its potential environmental impact. Since the question with electric cars is less about energy consumption and more about the source of that electricity, could charging stations carry a standard carbon efficiency rating? Perhaps five stars if derived solely from renewable sources, one star if from primarily unsustainable sources?

The food industry is highly fragmented and localized. How might it standardize quality for buyers? Perhaps by employing a high-level blended score to provide a grade like an overall student grade—A for the most sustainable, then B, C, and so forth. This way, consumers could still easily make an informed choice without being experts. If done properly, the consumer would understand and reward auditable sustainability practices. Consumers do care and will make choices that advance sustainability. For example, Starbucks reported a 150% increase in people bringing their own reusable coffee cups.[26]

Carbon measurement can prove challenging. A common framework defines scope 1, scope 2, and scope 3 emissions, which refer to enterprise direct emissions, enterprise-purchased emissions, and value chain emissions, respectively. This framework can then be applied to all the value chain participants to measure GHG. While there is a standard way to calculated common units of metric tons of CO^2 or any other GHG, the challenge is in accurately measuring it across often long, complex supply chains. It's so challenging, in fact, that it may appear practically impossible to correctly calculate through the entire value chain and provide any precise view of the overall environmental impact.

There are several worldwide initiatives to evolve standards based on work by industry associations such as the World Business Council for Sustainable Development, Open Footprint, The Climate Services, and many others. This work is essential. Global standard bodies such as GS1 are also working to create common standards to define and measure GHG emissions. These standards can start from a geography or sub-segment of the industry, get validated, and then scale up. Any business grows when consumers drive demand, so if consumers are able to understand—and even "audit"—sustainability practices, then half the battle will be won.

Many companies have found that value chain emissions comprise more than 90% of the company's total emissions. Developing a full GHG emissions inventory—incorporating corporate-level scope 1, scope 2, and scope 3 emissions—enables companies to understand their full value chain emissions and then focus on the greatest GHG reduction opportunities in the long run. The challenge is to be consistent across the value chain and have a common interpretation of the emissions.

Consistency can be challenging on the upstream part of the value chain, especially among small farmers and producers. Factors such as fragmentation, localization and a lack of incentives can result in insufficient data capture, inconsistent formatting of data that is captured, and no reliable digital infrastructure for collecting and sharing data. All this can spoil the goal of reporting reliable, consistent carbon emissions and progress toward minimizing them.

This provides for two potential market opportunities, one immediate, one longer-term. The industry is on the path to eventually develop standards and tools for consistent and precise computation of carbon emissions. But in the near term, consumers can be given an easy intermediate option to choose and drive sustainable products or services.

For example, a variety of public as well as proprietary tools exist to calculate farming carbon. But given same inputs on soil type, fertilization, tilling, and the like, they all give different outputs. Stakeholders can be innovative to adopt an intermediate step and agree on a consistent method to grade suppliers with a high-level carbon efficiency blended score, so that the most efficient are grade A, then B, C, and so forth. Downstream enterprises then don't have to worry about precise, auditable calculations, but they could just commit to buying from "grade A" suppliers.

A common approach to measurement standards and grading could provide the impetus to gradual sustainability consistency and eventual carbon neutrality.

Improved traceability and transparency

Improved visibility, tracking and reporting can align the value chain and build brand advantage while avoiding reputational risk. Consumers are now demanding to know more about products they are purchasing—food, in particular. Where was it grown, how was it handled, shipped, produced, and packaged?

This makes transparency one of the most important ways to build consumer trust. Digital transformation of inventory and production operations allows complete end-to-end traceability from receiving materials to shipping completed products, enabling companies to provide the complete traceability consumers demand.

Platforms built on blockchain technology can give consumer companies the ability to earn customer trust, especially for products hampered by reports of suspect provenance. Consider the olive oil industry. The IBM Food Trust platform is enabling participants to differentiate their brands and prove their authenticity in a market clouded by reported counterfeits and adulterated product—olive oil diluted with hazelnut oil, for example.[27]

Ultimately, these technologies will enable entire value chains to become fully sustainable. For example, a large coffee retailer could reimagine its value chain with its customers' preference for sustainability in mind. The chain might seek to ensure that its coffee is ethically sourced. But that's only a first step. The coffee chain would also have to work holistically with coffee producers to ensure the prosperity and resilience of coffee farmers, helping existing farms become more productive, if the end product—a cup of coffee—is to really be sustainable.

So the chain might help plant more disease-resistant coffee trees to make up for those lost in the normal farming cycle, and use a digital platform to connect farmers with research and resources to improve farming practices. They could also apply technology to support 100% traceability of the product at any given stage—from farming to roasting, ad processing to distribution and, finally, to the retail coffee shop. A customer sipping a cup of coffee could immediately know the coffee's origin, journey and validated sustainability by scanning a QR code.

Consumers do not buy organizations. They buy products.

This example is not wishful thinking—such an effort is already underway for coffee agriculture.[28] But we will need more examples of this kind of thinking in action to drive demonstrable sustainability across the food chain and other parts of the consumer industry.

Product level targets alongside organization level targets

While many organizations may have committed to sustainability goals and carbon footprint reduction, even driving to be "net zero," consumers do not buy organizations. They buy products.

Consumers will continue to play a critical role in changing the industry's behavior by their buying decisions. Specifically, they will want to use a "carbon label" and sustainability score for each product when making their decisions.

This will be true for food or any other product, whether it's a plane ticket, a cup of coffee, or how household electricity is generated. Industry after industry—music, digital photography, banking, personal transportation, to name just a few—has found that consumer demand disrupts the status quo and forces an industry to innovate. To accelerate and support consumer influence for increased sustainability, the industry needs to provide a consistent, open, and simple product-level sustainability score instead of just leaving it to each manufacturer.

This is not to say enterprise-level sustainability scores are unimportant. Enterprises are playing a central role in adopting sustainability levers and making it a business imperative instead of just a feel-good factor. Organizations also have to balance tradeoffs between carbon and cost efficiency, at least in the short term. But organization-level targets can often be too high level, such as reducing carbon 50% by 2030. Also, how these fuzzy targets will be achieved isn't clear or auditable.

Sustainability scores should be broken down by category and individual product for the end consumer. A product carbon footprint (PCF) index can help. To quantify a PCF, we must measure a product's life cycle carbon emissions across the value chain.

Product life cycle emissions are all the emissions associated with the production and use of a specific product, from cradle to grave, including emissions from raw materials, manufacturing, transport, storage, sale, use, and disposal. Analysis and evaluation of PCF should encapsulate a breakdown of a product's lifecycle emission upstream, direct operations at a company's manufacturing site(s), and downstream.

Government bans on single-use plastics has helped with user awareness and support. Government bans or taxes on high-carbon products could help. But the industry need not wait on government to act—it can achieve similar results by joining forces, innovating across value chains, and agreeing to standards and measurements that favor producing only less carbon-intensive, sustainable products.

Action guide

Getting started on the sustainability transformation journey

- Businesses need to fundamentally infuse sustainability into the core of their strategy instead of seeing it as a side function. Don't think of sustainability as a tool to appease certain segments of people, but rather how the organization can use sustainability to differentiate the company and its products and add value. Leadership at the highest levels, beginning with the CEO, needs to drive sustainability through all the functions.
- Set goals and develop a multi-year roadmap, defining what sustainability specifically means to your company and what it is willing to commit. Create a clear, measurable and actionable vision and bold targets to monitor progress.
- Build a collaborative business network across your value chain to implement standards and drive transformation. Impose guidance for sustainable practices and assign a responsible scoring system to enforce standards.
- Build a blockchain-based platform that integrates standard measurements with product traceability across the value chain and provides access and visibility to information and insights. First identify the most important products—ideally ones with a high impact on decarbonization—to move onto the platform. Then identify the complete value chain needed for those products, and who can be invited to partner on bringing them to life. Don't necessarily wait for all possible entities to join—begin with even a small set of players. Establish the business outcome, business process, workflow and viable engagement model between participants, as well as the data sets that will need to be shared and permissions for them based on a governance structure for that data.
- Assess your current organization's talent pool. Is it able to drive the required transformation? If not, fill any identified gaps. Do you have a leader who will specifically drive sustainability? Establish a core team representing all relevant business units or departments whose core responsibility will be driving organization-wide sustainability practices. Create a governance structure for this team to jointly update leadership, review progress and make key decisions. Charge this core team—and the larger leadership team—with providing a sense of purpose and direction for employees and help them build the skills needed to capitalize on the new opportunities of the environmental imperative.

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