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Walmart's Emergent Low-Cost Sustainable Product Strategy

California Management Review
1–26

DOI: 10.1177/0008125617695287
journals.sagepub.com/home/cmr
SAGE

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SUMMARY

This article traces the strategic initiatives that Walmart undertook over the last decade to implement its ambitious vision of selling more sustainable products. This effort has been characterized by a gradual shift away from customer-facing initiatives aimed at labeling sustainable products toward supplier-facing initiatives targeted at improving environmental or social performance without raising customer prices. It highlights the role of institutional intermediaries, transaction costs, and experiential learning in shaping firms' capabilities to translate ambitious sustainability goals into operable, mass-market initiatives.

KEYWORDS: sustainability, corporate social responsibility, strategic planning

> "What if [Walmart] used our size and resources to make this country and this earth an even better place for all of us: customers, Associates, our children, and generations unborn? What would that mean? Could we do it? Is this consistent with our business model? What if the very things that many people criticize us for—our size and reach—became a trusted friend and ally to all?"
>
> —H. Lee Scott, Walmart CEO, October 23, 2005

Lee Scott's 2005 speech, announcing the company's far-reaching corporate sustainability strategy, is often cited as an example of what companies can do to move large-scale sustainability initiatives to the mainstream.[1] In his inaugural speech, Scott acknowledged, "As one of the largest companies in the world, with an expanding global presence, environmental problems are OUR problems."[2] He then identified three goals to direct Walmart's future strategies: produce zero waste, be fueled by 100% renewable energy, and sell products that sustained people and the environment. Scott

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acknowledged the experimental nature of the endeavor, noting, "These goals are both ambitious and aspirational, and I'm not sure how to achieve them . . . at least not yet."

In this article, we present the findings of a multi-year project to trace the strategic processes that Walmart undertook to implement Lee Scott's vision, focusing on the third goal to "sell products that sustained people and the environment." Like other research that examines processes of organizational change and learning during the implementation of sustainability programs,[3] we analyze Walmart's lessons learned from an "emergent strategy" perspective that suggests that corporations often update and adapt their original plans as managers learn from experience over time.[4] Based on this perspective, we view Lee Scott's speech as starting an ambitious search for initiatives to translate his ambitious sustainability vision into concrete, measurable results. Our research was designed to identify Walmart's own lessons learned during the first decade of its sustainability journey.

Given Walmart's size and reach, its experiences have the potential to inform other enterprises wishing to implement an ambitious sustainable product's strategy as well as other firms wishing to respond to Walmart's initiatives. Its experiences also provide a unique opportunity to explore the meaning of sustainability for firms that operate within a low-cost business model. Researchers who explore the business case for branding and selling sustainable products often study firms that pursue a differentiated product strategy that pushes additional costs to customers.[5] In contrast, Scott envisioned extending the sustainability marketplace to serve a more price-conscious customer segment. One Walmart sustainability leader described the strategy as an experiment in the "democratization of sustainability," since one of its goals was to accelerate the mainstreaming of the market for sustainable products and practices.[6] Exploring Walmart's experiences as it sought to introduce sustainable products to a mass market provides the opportunity to ground new theoretical ideas and concepts in the study of low-cost corporate sustainability strategies and outcomes within the experiences of one of the largest companies in the world.

Tracing Walmart's Emergent Strategy in Sustainable Products

Numerous authors have called for more research from an "emergent" strategy perspective to directly explore the processes by which companies implement environmental and social initiatives.[7] These researchers suggest that the study of implementation processes, rather than formal plans or final outcomes alone, allows for a closer examination of failed experiments, strategic inflection points, and learning by doing that may offer important insights to other firms facing similar issues and challenges. From this point of view, corporate activities are not driven solely from the visions of top leaders, but also from the strategic choices made throughout the entire organization about what to do and how to interpret formal plans and visions. Organizational learning, adaptation, and search over time are critical components to understanding long-term strategic outcomes.[8]

A "process tracing" methodology is frequently used to capture patterns of emergent strategies.[9] Process tracing differs from conventional cross-sectional analysis as it does not look to infer underlying causal mechanisms based on analysis of observed outcomes, but instead directly examines decision-making processes as they unfold in real time. To trace implementation processes of Walmart's sustainability strategy, we first wrote eight cases. The cases move deliberately across time and levels of the organization. All these cases, except for the introductory one about Lee Scott, were based on primary interviews with the protagonist of the case. Walmart allowed us to interview sustainability leaders but exercised the right to review all cases for factual accuracy and legal implications. The major choices of interpretation and case writing were left to the academic authors, and only minor changes to the cases were suggested during the process of legal review.

All the cases were designed to be in the voice of its particular protagonist, describing the strategic process that they experienced in facing the problems. Each of our protagonists, some of whom sat for multiple interviews, personally reviewed all quotations and the case for any factual discrepancies. With the exception of a transportation case, which was completed in 2014, interviews were conducted and the cases were written during 2011 and early 2012, and were published in December 2012.

For the case project, interview sessions were conducted with 28 current or former Walmart employees as well as seven people from stakeholders that worked directly with Walmart (suppliers, NGOs, consultants). The interviews included seven conducted by phone and the rest were conducted at participants' offices. The 45- to 90-minute interviews were recorded and later transcribed by reputable transcription services. For some interviewees, we captured their retrospective accounts, but others were in the process of enacting sustainability strategy. Overall, these interviews produced over one thousand pages of interview transcripts. This article solely uses the quotations already published and reviewed in the cases, as these are publicly available.

To develop a fuller, theoretically informed narrative based on the cases, we followed multiple procedures to further analyze our data. First, we identified all the major product-related initiatives described in the cases. As most of the cases were finished in 2012, we also updated our list of product-related sustainability initiatives until the end of 2015 based on Walmart's public announcements.

Instead of viewing these initiatives as separate and independent events, we instead explored the company's cumulative lessons learned as its leaders discovered and adapted to what did, and what did not, work over time. To help identify higher-level themes, we first developed a list of all the quotations from the cases that related to sustainable product initiatives, identifying over 50 quotations across the case series. We also analyzed hundreds of other documents (press accounts, including Walmart's press releases, Global Responsibility Reports, and videos) as well as sustainability presentations made by Walmart personnel. We also attended Walmart's Sustainability Milestone Meetings to more fully capture Walmart's own perspectives of the events as they unfolded in real time.

Following a typical strategy in narrative-based, process tracing research,[10] we then moved from the development of initiative chronologies and insider interpretation to the analysis of emergent themes that explain strategic patterns across time. Based on our review of the timeline of individual initiatives and related quotations, as well as our experience in writing and teaching the cases across several years, we identified three interrelated themes that helped to explain patterns in Walmart's strategy over time.

The first shift in the pattern of initiatives relates to a movement away from product-specific sustainability claims toward projects aimed at developing a more generalizable and holistic sustainability index. This shift represents a movement from stories to scorecards, from telling narratives about individual products to developing measurement tools that could be used to guide and evaluate multiple product initiatives.

The second observed pattern relates to the level of the analysis at which Walmart's sustainability leaders focused their attention. We observed a movement away from firm-level initiatives taking advantage of existing standards and frameworks for sustainability toward institution-focused strategies deliberately aimed at the "formation and transformation of institutions, fields and the rules and standards that control those structures."[11] In institution-oriented strategies, the language justifying an initiative switched from what was just good for Walmart to what would be good for the entire set of private and public actors that were interested in providing more credible and meaningful information to customers.

A final pattern relates to a general switch from consumer-facing initiatives to supplier-facing ones. The lessons learned about the difficulties of constructing a credible customer-facing index contributed to a discernible shift in the company's approach to defining what selling more sustainable products would mean within its existing low-cost business model. Over time, the implementation of scorecard-based product initiatives emphasized communications with suppliers to better identify low-cost innovations that improved economic or social performance without raising prices rather than communicating with customers to provide additional information so that they could better evaluate the sustainability attributes of particular products.

To better provide an underlying narrative of these lessons learned as they unfolded over time for corporate participants, we designed a multi-level map of Walmart's emergent strategies, as illustrated in Figure 1. While our analytical goal is to explain why the three themes identified above came to interact to explain strategic choices and outcomes over time, we choose to describe our findings according to the chronological order presented in Figure 1 to illustrate the emergent nature of Walmart's lessons learned. We do not wish to imply a strict chronological ordering in which new initiatives became implemented only after the company learned about the limitations of earlier ones nor suggest that our simplified model represents a comprehensive list of all of Walmart's product-related initiatives. Instead, we propose that the pattern presented in

FIGURE 1. Walmart's emergent low-cost sustainability strategy.

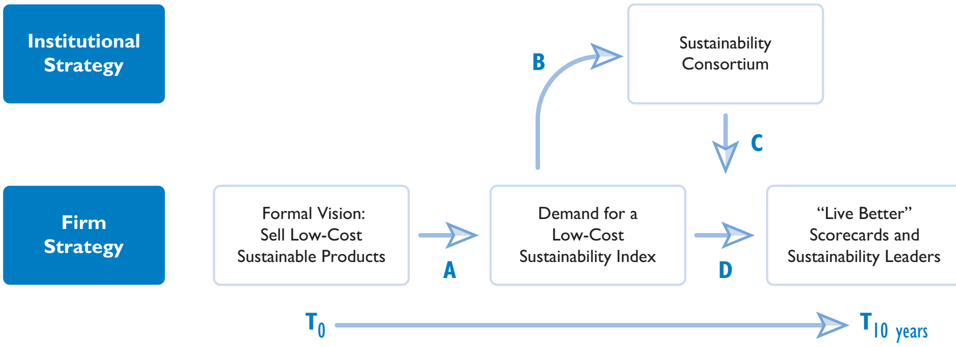

Figure 1 provides an accurate road map of the general direction of Walmart's most important strategic choices and lessons learned over the first decade of implementing Lee Scott's ambitious vision of selling sustainable products in U.S. markets.[12]

Walmart's Emergent Low-Cost Sustainability Strategy

The Growing Demand for a Low-Cost Sustainability Index, 2005-2008

The first major strategic inflection point in Walmart's efforts to implement Lee Scott's goal of selling sustainable products relates to efforts to move beyond stories as the company recognized the demand for a systemic index to define, measure, and compare product sustainability. This is described as a set of learning points along Path A in Figure 1. With experience, sustainability leaders increasingly sought a holistic measure of what actually constituted a sustainable product, so that they could better measure their own progress toward meeting Lee Scott's goal to sell sustainable products and, at the same time, better communicate to customers what exactly they were selling.

At the beginning of the broader sustainability initiative, the telling and retelling of individual stories provided the momentum to encourage a wide search for possible product and marketing innovations. Storytelling did not require formal measurements of all potential attributes of sustainability but instead relied on the internal and external dissemination of individual cases that clearly achieved success on some commonly understood metric. For instance, in Scott's 2005 speech, he provided concrete stories about reducing toy packaging, which conserved natural resources and saved money, and using organic cotton in yoga outfits, which were quickly demanded by customers, thus providing tangible illustrations of the way in which a company like Walmart might both sell sustainable products that excited customers and engage in innovation that improved the impact of the company's products on the environment. Andy Ruben, Walmart's first vice president for sustainability, who deliberately encouraged story-telling as a tool for building momentum for the sustainability program across the organization, noted "We did end up with those stories; but instead of three to four, we had hundreds of them."

Many of the success stories became embedded in company rhetoric as exemplars of shared value creation. For instance, CFL light bulbs were a preexisting product innovation, but they matched Walmart's goals to sell more sustainable products, so the company used its extensive reach to make this product more easily available to customers. The technology for concentrated detergent also was readily available, but Walmart helped bring it to market by promising suppliers equal or greater shelf space, despite the smaller product size. Using a "lens of sustainability" in evaluating the packaging for a Kid Connection car/truck toy set, Walmart determined that the packaging was several inches larger than needed for safe shipment, reporting that the resulting packaging reduction in this single product category saved $3.5 million on transportation while also saving 5,100 trees and using 1,300 fewer barrels of oil.[13] These stories, and others, were retold over and over, building momentum to explore other potential cost savings.

The broader packaging initiative represented exactly the type of shared value innovations that Walmart hoped to use to define its sustainability program. It decreased Walmart's costs while also contributing to its ability to meet transportation efficiency goals. Reduced packaging meant more products on trucks. Combined with innovations in pallet configurations and logistics routing improvements, these shifts improved the sustainability metric of cases of product moved over fuel used and contributed to the eventual achievement in 2015 of the 2005 goal of doubling fuel efficiency.[14]

Decreased packaging and transportation costs represented two clear dimensions for measuring product sustainability, but questions remained about how to compare these dimensions against a host of alternative definitions of sustainability. Some advocates focused on the human costs of producing certain products, such as "dirty gold" in jewelry.[15] Others called for better management of renewable natural resources, such as by selling only certified sustainable fish in stores. Still others demanded lower amounts of pesticides or chemicals in products or encouraged initiatives to decrease product-related greenhouse gas emissions.[16] Another group pointed to consumers' product use and disposal as the "hot spot" for environmental impacts, questioning Walmart's sale of products such as bottled water.[17]

At first, Walmart responded to these issues with individual initiatives. For example, it announced a partnership with Conservation International to develop supply chain transparency for a line of jewelry, known as the "Love, Earth" collection, using environmental, human rights, and community criteria.[18] Sam's Club introduced a range of gourmet coffees with three certifications: fair trade certified by TransFair, responsible harvesting certified by the Rainforest Alliance, and organic certified by the United States Department of Agriculture (USDA). Walmart also committed to using third-party certification (Marine Stewardship Council) for wild-caught fish and helped cotton suppliers to become USDA Certified Organic.[19]

However, over time, these individual product initiatives presented new issues. For instance, Walmart relied on self-reported data from its Love, Earth jewelry suppliers, but an investigative reporter reported that a key Bolivian manufacturer was falsifying data and contracting with sweatshops.[20] The lesson was that relying solely on suppliers' accounts without independent verification would be risky if Walmart hoped to make sustainability claims to consumers. Walmart also struggled with whether the sale of certain products with poor sustainability attributes, such as bottled water, fell within its broader sustainability goals, but eventually asserted that it would not exclude products that customers demanded. As Lee Scott told a *Wall Street Journal* reporter, "If the customer wants bottled water, we are going to sell bottled water."[21]

Measuring and labeling sustainability attributes across a wide range of products also emerged as an ongoing challenge, particularly when making claims to customers. The need for a holistic standard crystallized when Walmart asked suppliers for proposals for a 2008 Earth Day promotion. Suppliers, having no common standard by which to gauge sustainability, responded with such a vast range of claims, across multiple dimensions of the product attributes (e.g., reduced packaging material, percentage recycled content, use of non-toxic ingredients, product recyclability) that Walmart's sustainability leaders could not figure out which products to include. The concept of a "sustainable product" transcended any individual product dimension, such as packaging or recycled content, and therefore corporate actors were wary of calling a product sustainable based on the evaluation of a single dimension, noting the risk that Walmart might discover later that some data were inaccurate or that the product was not sustainable on alternative criteria.

Matt Kistler, who followed Ruben as the senior vice president for sustainability in 2007,[22] took a logical next step and asked external experts how to proceed. However, even a team of advisers that Kistler called the "council of elders" could not articulate a clear, consensus answer:

> We were doing the circular for Earth Day and were struggling to figure out which products to put into the circular—which ones were truly "green." And we were wracking our brains over what qualified. So we ended up creating a council of elders—a leadership council of NGOs and academics to vet the products that the merchants had given us. It was after that we realized we must have a science-based tool—this council approach was not going to work. We were going to get labeled as greenwashers—it's just not scientific.

For example, one promotion presented Campbell's Condensed Soup with a green label (instead of the customary red one) as a sustainable alternative because it was condensed. However, this choice generated external criticism and accusations of greenwashing—that is, that sustainability at Walmart meant taking existing products and putting green labels on them. In the absence of a credible, holistic measure of sustainability, the company learned through experiences like the Earth Day promotion that comprehensive marketing campaigns remained both difficult and risky, particularly given the expectation that any product claims would receive wide public scrutiny.

Summarizing these early lessons, Rand Waddoups, a senior manager working with Kistler on the problem of defining and communicating product sustainability, noted,

> We always had the same two questions: One, how do you gather and purpose data? How do you do it in a way that is really efficient and effective? Two, once you get all that data, how do you purpose it to ensure that you will actually get value from it?

As Walmart's leaders searched for answers to these basic questions, they came to believe that the issue was not simply that suppliers or Walmart didn't know, or even that the "council of elders" disagreed over best practice; rather, it was that the holistic solution that Walmart sought simply did not yet exist. As Waddoups elaborated,

> We struggled to find someone who could really help us do this; but increasingly we realized that the solutions we saw were only different parts to the puzzle—there was no holistic solution. The more we explored, the more we discovered that there are resources, beginning points, but we needed so much more. How were we going to measure water and the importance of water? What's the difference between water in water-starved regions in India versus water in North Dakota, where they've got plenty of it? How do you deal with the differences in geography and the real impacts associated with decisions you have to make? . . . We're a retailer and building an index is not our core capability.

Walmart wanted a comprehensive solution, but its retail experience did not give it the capabilities to develop holistic standards across the wide range of products in its stores.

Waddoups described existing certifications, standards, and approaches as only a starting point in the search for a holistic standard. Thus, while emergent product-labeling organizations did exist at the time, such as in seafood, organic food, and forestry, Walmart's decision to define, compare, and communicate sustainability across its entire product line meant transcending product category approaches. Walmart identified the company GoodGuide as having the type of holistic index it hoped to develop. This technological start-up company aimed to develop, evaluate, and compare product sustainability attributes—health, environment, and social—across a wide range of product categories. Relying on an extensive array of public and private data, GoodGuide scored products on sustainability attributes along a 1 to 5 scale and provided an overall product score that customers could use to compare different products. However, the mechanisms by which these scores were determined were secret. Kistler, ever wary of the risk of greenwashing, recognized that "GoodGuide was much more holistic, but it did not meet our criteria for transparency."

Walmart's sustainability leaders hoped to develop a holistic and transparent index that could withstand the type of criticism and challenges that they knew the company would likely encounter, but, over time, they came to believe that the institutional infrastructure of the sustainability product market had yet to develop a systemic solution to this problem. These early lessons shaped the company's subsequent strategic choices, as the company moved from trying to bring specific products to market, as illustrated in its 2008 Earth Day initiative, toward defining the standards for the marketplace as a whole.

The Sustainability Consortium, 2009-2015

In this section, we further explore Walmart's strategic movement away from customer-facing initiatives through their experiences in founding and helping manage The Sustainability Consortium, a collective action organization designed to develop holistic and public standards to define and measure product sustainability attributes. The rationale of Walmart's institutional strategy announced in founding the Consortium is illustrated in the learning points represented in the upward line B in Figure 1, and the realized outputs of the Consortium by 2015 are illustrated in the downward line C.

The demand for initial shared, institutional work was clearly articulated in the July 2009 Walmart Sustainability Milestone Meeting, when Walmart CEO Mike Duke announced the formation of the Consortium, first reviewing the lessons Walmart had already learned:

> As I look back at our progress over the past few years, I think the most difficult challenge has been to measure the sustainability of our products. Despite all the work that's been done, we see only bits of information, but not the full picture across the supply chain. We don't know the patterns, hidden costs, and impacts of the products we make and sell. Nor do we have a single source of data or a common standard for evaluating the sustainability of products. If we want to help the customer of the future live better, we need that data. We need that big picture view.[23]

This "big picture view" required more than imagining what Walmart could accomplish as a single organization; it demanded cooperation with others to collect the data and create the sustainability standards that would improve and expand the market as a whole. To spark this cooperation, Duke provided start-up funding for the Consortium with the explicit goal of developing a sustainability index that firms could use to transparently measure and communicate product sustainability:

> The Index will bring about a more transparent supply chain, drive product innovation, and, ultimately, provide consumers the information they need to assess the sustainability of products. . . . It is not our goal to create or own this Index; we want to spur the development of a common database that will allow the consortium to collect and analyze the knowledge of the global supply chain.[24]

Duke remarked that, as an engineer, he preferred "data and an elegant process" to solving problems and hoped to help work with stakeholders to create "a single source of data or a common standard for evaluating the sustainability of products" through the Consortium. He noted in his speech that the "ultimate step of the Index is to translate the information stored in the database into a simple tool that informs consumers about the sustainability of products," thus highlighting Walmart's continued search to provide customers transparent, simple, and holistic tools to evaluate product sustainability.

Bolstering the attempt to signal and build support for a transparent, public standard, Walmart established leadership of the emergent multi-stakeholder Consortium within two universities, the University of Arkansas and Arizona State University.[25] As Kistler explained, the choice of universities as key leaders stemmed from the desire to develop an "unbiased, science-based source" of information in the marketplace:

> I think of colleges and universities as being "neutral." If an index like this comes from any particular sector—like business, NGOs, or government—then it's unlikely that the other sectors will see it as credible. So universities are the closest thing I know to an unbiased, science-based source.

Still, skeptics questioned any effort that would be dominated by industry players who had strong incentives to write standards to their own advantage.[26]

Others, including Jon Johnson, the new co-director of the Consortium from the University of Arkansas, believed that firms could be motivated to participate in standards development that would improve market communication. To explain the reasoning of why firms would benefit from the cooperative work of the Consortium, Johnson used the concept of a "pre-competitive" space to identify the production of quality and credible information as a joint project from which all companies wishing to sell sustainable products could benefit:

> In a pre-competitive space, companies can create conditions under which they can later compete more effectively and efficiently. Information is the raw material of markets, and truly efficient markets require perfect information, but the information they have is imperfect. If firms can collaborate in a pre-competitive way to create better information with fewer information asymmetries, more credibility, more certainty, and most importantly, more harmonization so that everyone is speaking the same language, then they can later interact more effectively in a competitive market, because they're exchanging better information, and doing so more efficiently. Developing standards is a perfect example because companies should protect proprietary information but release the kinds of information that are necessary for decisions to be made across organizational boundaries.

While the concept of managing the commons is often applied to the study of the natural environment in sustainability research,[27] Johnson makes a similar argument about the benefits to cooperation in managing common standards. In the latter case, the benefits to common standards relates to "fewer information asymmetries, more credibility, more certainty, and . . . more harmonization" for all participating Consortium members. Johnson thus refers to a positive-sum game in which cooperative behavior in constructing and sustaining common standards would improve the ability of participating firms to better communicate with interested suppliers, customers, and stakeholders about sustainable product attributes. Under these "pre-competitive" conditions, firms' collective interests in constructing new forms of market intermediation would increase the flow and credibility of information across the market as a whole.

The concept of a positive-sum game in managing common resources also shaped the language of Walmart's own support for the Consortium. In justifying his support, Kistler remarked that developing collective sustainability standards are

> a collective good for the entire industry, similar to packaging changes. Packaging changes that a manufacturer makes for Walmart tend to ripple through the entire supply chain. We win, and our competitors win too. We know that by reducing packaging, by improving energy efficiency, our competitors gain the same advantages. But ultimately, its consumers we really care about, and the consumer wins regardless.

Like Johnson, Kistler believed that collaboratively developed standards, such as packaging initiatives, represent "a collective good for the entire industry." Not only would Walmart benefit, but its competitors and customers would as well.

Yet, while Walmart's early challenges in defining and measuring sustainable products led the company to help found the Consortium, subsequent experiences led them to new lessons about the challenges and delays to collective action, as illustrated in the learning points along line C in Figure 1. The Consortium faced its own growing pains, including funding, member recruitment, organizational and governance structure, staffing, and leadership that took time to put together, delaying the implementation of the Consortium's strategic agenda.[28] However, even as the Consortium began to operate, it faced challenges in managing the multiple scientific, political, and organizational issues that came with constructing a workable measurement system for product sustainability.

One major obstacle to producing a sustainability index was the science itself. Johnson noted,

> We expected in the beginning that a full, LCA [life cycle assessment]-based methodology for all products and all dimensions was going to be quite difficult to achieve in the near term, but we didn't know how far we could get with it. Many experts told us any kind of LCA-based approach would be impossible, while others were saying that it was ready to go out of the box. Rather than engage in an endless discussion among the academics, NGOs, and corporates, we decided to just try to build an LCA-based system and see for ourselves what was possible, what was impossible in the near term, what was impossible in principle, and how we could adapt the systems to generate something usable in the short term and aspirational in the long term.

Adopting a trial and experimentation approach, the Consortium first chose seven products to assess on the basis of internationally accepted life cycle analysis standards, to derive and support science-based sustainability claims. Two years later, the Consortium determined that the LCA approach was not economically scalable and reported that the LCA community had failed to come together in a way such that real progress could be made by the Consortium in a timely, collaborative manner. The early search for ways to develop and aggregate sustainability efforts thus revealed that producing original, scientific information took more time than initially expected, particularly as stakeholders increasingly expected that the search would end so that a sustainability index could be implemented.

In response, the Consortium moved from a strategy of collecting original scientific life cycle data to a reviewer model, which aggregated the opinions of scientific experts, industry leaders, and published studies (including LCA studies). Based on this aggregation approach, the Consortium in 2011 moved toward creating product category-specific "knowledge bases" or later, "dossiers." Dossiers included analyses of product category "hot spots" with generally acknowledged and potentially significant environmental or social impacts. A dossier also included a "category sustainability profile" that organized these hotspots by the different life cycle stages (e.g., raw materials extraction, manufacturing, and distribution) and for each of these stages delineated the environment and social impacts. Last, from the category sustainability profile, the Consortium produced a set of key performance indicators (KPIs) and category improvement opportunities that reflected the salient sustainability dimensions of the product category. By 2015, the Consortium had created a list of 110 fully completed categories that included a publicly available "Sustainability Insight" for general audiences and a "Product Sustainability Toolkit" free to paid members and available to others for a fee.[29]

While the Consortium eventually developed sustainability metrics that could be voluntarily adopted by member organizations, it refrained from entering the business of actually presenting sustainability labels to customers. Johnson described the difference between developing metrics and owning a label in the following manner:

> There is a fundamental difference between a system containing data sufficient to create a label and the label itself. That is to say, different stakeholders could create different labels from the same data system. Those differences would result from the different political, competitive, moral, social, and cultural beliefs emphasized by those groups. For instance, social dimensions such as working conditions might be important for one group but not another. Those kinds of judgments are just not within the purview or even expertise of the Consortium.

To Johnson, the challenge of developing any labeling system extends beyond reaching agreement about the environmental or societal impact of a single product attribute to making difficult "political, competitive, moral, social, and cultural" distinctions about which attributes should be included—with what weight—in assessing those impacts. In the same way that the "council of elders" had earlier proved incapable of arbitrating between different approaches to measuring product sustainability, the Consortium was unable to coordinate consensus over what should be included and how data would be collected and weighted to produce a label.

The coordination challenges of creating a shared, common database became especially salient in 2013, when Target announced it would be introducing a sustainability product index for about 7,500 of its products, based on supplier-provided information. Target reported that it had been working with GoodGuide, "in partnership with industry experts, vendors and NGOs, [to] help establish a common language, definition and process for qualifying what makes a product more sustainable."[30] Underwriters Laboratories had purchased GoodGuide in 2011, suggesting the strong market opportunities for similar sustainable product information intermediaries. Target's decision to implement its own solution, rather than join the Consortium, demonstrated that Walmart's goal of creating a collective market standard would not be easily achieved. Target's announcement only further increased the market fragmentation of sustainability standards and limited the potential reach of the Consortium's efforts.

The gap between the aims of Walmart's institutional work, as exemplified in line B in Figure 1, and the outputs of its efforts, as illustrated in line C, shaped Walmart's subsequent strategic choices. For instance, as the Target example illustrates, the emergence of a market standard remained distant. At least by 2015, the Consortium's KPI metrics did not yet represent a shared database that enabled comprehensive product comparisons across firms. In addition, the Consortium's decision not to own any collectively managed sustainability index or conduct original scientific research into life cycle impacts meant that member companies still needed to incur the transaction costs of reporting, auditing, aggregating, and communicating sustainability product information if they wished to implement any firm-specific labeling initiative. These limitations shaped Walmart's subsequent strategic choices on how to use the Consortium's metrics to further their ongoing search to translate Lee Scott's vision to sell sustainable products into concrete initiatives that worked within its low-cost business model.

Live Better Scorecards and the Sustainable Leaders Program, 2009-2015

To further explore Walmart's strategic adaptation to an evolving institutional environment, we now return to a firm-level perspective on Walmart's search to implement a sustainability product index, as illustrated in line D in Figure 1. These efforts ran in parallel to the company's institutional work with the Consortium,[31] but the outputs of the Consortium, as represented by line C, moderated what Walmart eventually considered possible to implement at the firm level.

Identifying low-cost, supplier-based innovations represented an early strategic initiative for Walmart. In 2009, the company began asking over 100,000 suppliers to provide answers to 15 questions on the sustainability of their operations in four areas—energy and climate, material efficiency, natural resources, and people and community—in an effort to encourage suppliers to begin thinking more deeply about their practices. These questions covered such areas as greenhouse gas emissions, procurement policies, and supply chain transparency. By 2012, the company began to pilot the KPIs from the Consortium, producing what it called "Live Better" scorecards for several product categories for suppliers who completed the Consortium-based questionnaires.

However, even as the company began to implement scorecards within its supply chain, it still had not figured out how to best communicate that information to its customers. Walmart Board Chairman Rob Walton's response to a question at the 2012 Fortune Brainstorm Green conference illustrates the company's challenge of implementing a customer-facing strategy:

> One of the questions was about [the sustainability index] not going fast enough. But good gosh, this is really complicated stuff. And, it's giving our buyers information to inform decisions and compare products. It will be a great day when we can give consumers that information.[32]

Walton's acknowledgment that the systemic constraints on developing a sustainability index were "really complicated stuff" was tied to his subsequent argument that external observers should instead look to Walmart's accomplishments with its suppliers to evaluate progress toward the company's goal of selling sustainable products. Even though Walmart was moving slowly in communicating with its customers, Walton suggested that the company was moving more quickly in working with its suppliers.

By 2013, the scorecard initiatives included 200 of the largest merchandising categories in its U.S. stores.[33] The company also promised at that time that, by the end of 2017, it would buy 70% of the goods it sells in U.S. Walmart and Sam's Club stores from suppliers that used the scorecard to evaluate and share sustainability product information. Walmart also announced changes in the evaluations of its global sourcing merchants, to make sustainability an even more important part of buyers' day-to-day jobs, such that 5% of their performance evaluations would be driven by sustainability objectives. Walmart began training buyers to understand the Live Better Scorecards for the products they purchased to implement this new initiative, looking specifically for supplier innovations that produced more sustainable products at little or no additional costs.[34] Devon Douglas, a senior manager of sustainability at Walmart, explained this emergent supplier-focused strategy in the following manner: "Are we trying to use [sustainability indexing] as a strategy to sell certain products? No. Our approach is to work with suppliers to create better products."[35]

Walmart quickly applied the Live Better Scorecard to supplement and support a number of broader, sector-specific initiatives that it was implementing in tandem with its suppliers. For instance, General Mills agreed in a 2014 summit to co-sponsor an innovation challenge with Walmart to encourage innovators and farmers to find promising ways to reduce greenhouse gas emissions in fertilizer management. The Dairy Farmers of America promised that by 2020, more than

90% of its 9,000 member farms would participate in its Gold Standard Dairy program, focused on resource efficiency and optimization.[36] The strategy of working with suppliers to look for such improvements and efficiencies still sought to maintain the everyday low prices that defined Walmart's existing business model and supply chain expertise.

However, even as the Consortium completed the analysis of more categories in 2015, and over 1,300 suppliers were participating in the Index, Walmart still faced the decision about the best way to implement the use of these scorecards in its own communication with consumers. Walmart created the Sustainability Leaders program in early 2015 to address this issue. Rather than making claims about product or even product category sustainability, the Sustainability Leaders program aimed to identify its best-performing suppliers. An aggregate ranking of companies was made by product category (e.g., televisions, computers, toys). Suppliers that scored at least 80% or ranked top in their category were deemed "sustainability leaders." On Walmart.com, the company highlighted 3,000 products produced by those companies and communicated to consumers that the dedicated Sustainable Leaders shop made "it easier to find products made by companies that have scored as best in class in Walmart's Sustainability Index."[37]

Yet, even while reporting its top performers, the website clearly stated that the information provided did not represent any sort of endorsement of a particular product and that customers were responsible for doing their own research:

> The badge does not make any representations about the particular environmental and/or social impact of a specific product. While not perfect, we believe this approach highlights companies that are leading among their peers and allows all industries to participate. We encourage you to do your own research and learn as much as you can when purchasing a product.[38]

One reason for such a qualifying statement is that the Sustainability Leaders badge was based on a company score at the level of a product category rather than an analysis of any individual product. Therefore, if a company earned a badge within any product category, then all the products that a supplier sold within that category were labeled with the designated Leadership label. Since the Consortium had developed its performance metrics at the product category level, and Walmart had designed its own surveys and ranking system around this system, the company did not possess the data to report comparative scores at the level of individual products.

Another limitation the company acknowledged was the lack of transparency. Although Walmart provided links to category sustainability information on the Consortium's website, neither the individual scorecard dimensions for a category nor the criteria for weighting and aggregating them for its suppliers were publicly available or subject to any external scrutiny or independent verification. In response to a hypothetical frequently asked question on its website about reporting limitations, Walmart also called the Sustainability Leaders badges "not perfect, but an important first step."[39]

Given these limitations, the Sustainability Leaders program sparked external concerns. Critic Stacy Mitchell suggested the Sustainability Leaders program was "straight out of Walmart's ten-year-old greenwashing playbook," noting that the website called a "giant 150 pound roll of bubble wrap" sustainable.[40] Former Seventh Generation CEO Jeffery Hollender assessed toilet paper on the site but found that it lacked any attributes normally associated with sustainable paper products.[41] Despite all its precautions in acknowledging the limitations of its Sustainability Leaders program, the company still had difficulty clearly communicating a sustainability index that distinguished more or less sustainable products to customers.

From Walmart's perspective, its cautionary approach implementing the Sustainability Leaders program illustrates a careful institutional adaptation strategy; it wanted to work within the constraints of the existing sustainability indicators as put forth through the consortium and also did not want to promise customers more than it could implement in practice. Thus, the company warns that the program does not perform some of the functions that even the company itself had initially hoped it might be able to accomplish; for instance, the index does not differentiate between more or less sustainable products, as it reports on aggregate company results rather than disaggregated product scores. Nor is the index based on a common database that extends beyond Walmart's own suppliers; thus, it does not report on the most sustainable products, but instead reports on the relative performance of low-cost suppliers within its own supply chains.

While some claim that these limitations represent greenwashing, Walmart's own answer to this critique is that they understand that the program is "not perfect, but an important first step." That is, despite its deviations from even its own original goals, the Sustainability Leaders index represents a first step toward the broader goal of developing more accurate and verifiable standards over the long run: "Our goal is to share the results, learnings, and best practices over time—and adapt accordingly."[42]

Discussion

To generalize from Walmart's experience, we first return to the original questions posed by Lee Scott in his 2005 speech about what a sustainability strategy would mean for the company and whether it would be consistent with its low-cost business model. An evolving answer to this question is related to the movement away from customer-facing initiatives aimed to shift consumer preferences and label sustainable products and the movement toward supplier-facing initiatives that searched for innovations that improved environmental or social performance without raising costs. The latter did not require the direct buy-in from customers since more sustainable products continued to compete favorably in terms of price.

Moreover, our analysis suggests that the company's eventual low-cost strategy emerged through experience. In its early steps along its sustainability journey, the company began to learn of the challenges of marketing sustainable products to consumers and, to address these issues, expanded its original vision of selling sustainable products to include a broader, more complex understanding of sustainability labels and standards. Mike Duke called for a "big picture view" of sustainability when announcing the formation of the Sustainability Consortium to develop a public, sustainable product index. Board Chair Rob Walton similarly expressed the dawning recognition that the development of a customer-facing sustainability index is "really complicated stuff" and still distant. From their early efforts to promote more sustainable products toward their later efforts to work with the Consortium to develop a common label, Walmart sought an inexpensive means to measure and communicate credible information about the sustainability attributes of mass-market products.

The lessons learned from Walmart's experience extend beyond the need to understand the complex underpinnings of sustainability labels to also identify the real-world challenges of implementing such standards within a low-cost business model. Motivating a potentially competing set of Fortune 500 companies to cooperate to build a collective standard proved to take more time and be more difficult than originally expected, thus creating new questions for the firm about the best way to adapt Lee Scott's original goal into operative initiatives that worked within the existing institutional context. The Sustainability Leaders initiative represents one example of such a compromise to figure out what could be done within existing resources and constraints.

Our historical analysis of Walmart's search processes differ from those that accuse Walmart of greenwashing for not meeting its own sustainable product goals. These external critics note that Walmart's full goals in selling sustainable products have not yet been met, and attribute this failure to a lack of commitment on the part of Walmart's leadership.[43] An institutional perspective provides an alternative explanation of why Walmart, or any large corporation, might not always end up fully implementing initial goals. In terms of Walmart's experience, this institutional moderating effect is illustrated in the interaction between lines C and D in Figure 1. At least over the short run, Walmart felt constrained by what it could accomplish as a firm because of the limited nature of the systemic inputs that the company received from the broader institutional environment.

The study of failed, partially implemented, or highly adapted sustainability programs like the Sustainability Leaders program offers an opportunity to move beyond the observation that many ambitious sustainability visions are not quickly or easily implemented and to move toward a better understanding of why and under what circumstances. To generalize from the Walmart case, the concepts of institutional intermediation, transaction costs, and experiential learning help to explain why many firms may deviate from original visions when implementing ambitious sustainability goals.

Institutions, Transaction Costs, and Low-Cost Sustainability Strategies

To explore the relationship between institutions and low-cost sustainability strategy in more general terms, we turn to an emerging markets literature that applies a transaction cost framework to analyze why institutions often moderate the ability of firms to successfully introduce new strategic initiatives.[44] From this perspective, markets are transactional arenas in which buyers and suppliers meet; if sellers face difficulties in communicating exactly what they are selling and customers remain skeptical about the information that they receive, then the transaction costs of exchange may lead many potential customers to exit the market altogether.[45]

In developed markets, institutional intermediaries often emerge to provide information about product quality and characteristics that customers find difficult to directly observe or experience.[46] Some institutional intermediaries are private, profit-seeking firms (e.g., Consumer Reports, JD Power, UL), whereas others are non-profit, collective action organizations that provide general public goods in shaping the quality of information and knowledge within the marketplace as a whole.[47] Industry and credentialing associations, such as the Fair Labor Association or the Forest Stewardship Council, represent open institutional intermediaries that strive to provide credible assessments and standards without the formation of independent, private companies.[48]

However, in the absence of established public or private institutional intermediaries to lower transaction costs, which this literature often identifies as "institutional voids," firms are required to internalize the costs of defining, validating, and communicating new product attributes to customers. For example, in the market for sustainable products, some customers may invest the time to buy their food from area farms that they can physically inspect, while others might be willing to pay a premium to trust organizations like Whole Foods or local cooperatives to present a viable range of sustainable options. In contrast, Walmart hoped to attract customers unwilling to make these investments, creating the challenge of constructing low-cost solutions to the problems of information and labeling in the emerging sustainable product marketplace. Therefore, unlike more differentiated competitors, low-cost retailers like Walmart are less likely to voluntarily incur additional transaction costs given the difficulty that these companies face in passing these expenses onto customers.

Under these conditions, it is not a surprise that Walmart's emergent strategy strayed away from incurring the transaction costs of trying to change customer attitudes and behaviors and toward seeking low-cost innovations that aligned with its existing low-cost strategy. To reduce waste and improve energy efficiencies in its stores, Walmart deployed its considerable resources to pursue well-defined goals, which enabled it to make significant progress on its original goals for waste reduction, transportation efficiency, and product packaging. In contrast, the lack of external metrics and internal capabilities to measure and communicate progress toward its product sustainability goals led Walmart to forgo a systemic customer-facing sustainability strategy and to focus instead on encouraging suppliers to seek operational efficiencies similar to those that Walmart had been able to achieve.

While Walmart did not fully succeed in designing a fully developed sustainability label that other firms could use effectively with little cost, the company's emergent supplier-focus strategy may have nonetheless stimulated activities for low-cost sustainability innovations. For instance, responses to an open-ended question in one study indicated that Walmart was the top-cited retailer (79%) driving suppliers' investments in product sustainability.[49] Since Walmart's supplier-facing initiatives focused internal attention on the sustainability attributes of products, such as tying the pay of Walmart's buyers to sustainability improvement, its programs lowered suppliers' transaction costs in marketing more sustainable products specifically to Walmart, even if these products would nonetheless need to compete equally well on other dimensions of performance such as price.

Decision Making under Institutional Uncertainty

The emerging markets literature suggests three types of strategic responses to competing under conditions of weak market intermediation: avoid the market until new standards become accepted and consolidated, engage in institutional work to change the business environment, and adapt strategies to fit existing institutional conditions.[50] This framework of strategic decision making under institutional uncertainty also provides insights for firms of all types wishing to understand and respond to the emergent institutional conditions within the sustainable product market.

The implications of an avoidance strategy relate to the arguments presented above. If the institutional standards of competition remain fragmented, then many low-cost competitors are likely to avoid even trying to pursue direct mass-market customer appeals given the high transaction costs that such strategies might entail. In this case, other types of sustainability programs, such as improving operational efficiencies (such as packaging improvements and energy reduction) are most likely to fill a corporate portfolio of sustainability-related initiatives.

While some low-cost companies may simply wait on the sidelines to allow other companies to incur the costs of constructing new standards, Walmart chose to promote institutional work via the Consortium to reduce transaction costs and harmonize standards. In the broader literature, institutional work views corporations not only as passive actors that respond to given rules of the game, but also as agents who may, deliberately or accidently, act to change those rules.[51] In the Walmart case, the company openly acknowledged in forming the Sustainability Consortium that public standards and information sharing could lower the transaction costs of measuring and marketing the sustainability attributes of products. These benefits would accrue to all market actors—including competitors, suppliers, and customers.

Moreover, Walmart's efforts to design the Sustainability Consortium relates to a broader literature on cross-sector partnerships and alliances as a means of institutional work. Some authors refer to this as a "societal-sector platform concerned with altering sectoral relationships to redefine the nature of a social need and the possibilities for coping with it."[52] Problems on such platforms tend to be "meta-problems" or those that are not solvable by any one sector of society. Instead of working product by product, or even industry by industry, Walmart hoped to reach beyond its boundaries to new partners in order to develop a holistic understanding of the problem and develop metrics that it hoped would become a global standard for addressing both environmental and social concerns.

In this case, the idea of institutional work means more than simply trying to determine what is best for a particular product line or strategy. It also involves determining what types of collective action organizations and potential partners are most likely to contribute to the development of the broader market as a whole. Figuring out what types of alliances and partners are necessary to pursue collective goals and determining how much and in what way to contribute to cooperative efforts are likely to represent important strategic issues for any firm wishing to enter into the emergent marketplace for sustainable products.

Walmart's experiences point to both the necessity of institutional work as well as to its limitations. Numerous researchers across multiple literatures have noted that a purely functionalist account of institutional emergence on the basis of market demand alone problematically explains observed outcomes in industry-led collective action organizations. In contrast, a political and organizational view of collective action in market arenas regards institutional work as a multi-stakeholder negotiation across multiple domains, involving states, NGOs, non-market actors, and firms that often lead to unexpected outcomes.[53] Negotiated and political processes often lead to delays, struggles, and limitations to firm-level efforts to fully control the institutional environments in which they operate.[54] Walmart's lessons therefore extended beyond realizing the benefits to changing the external environment, as illustrated in line B in Figure 1, but also to the necessity of adapting to it, as illustrated by the intersection of lines C and D.

An adaptation strategy requires modifications to original plans as firms learn through experimentation and trial over time. Under these conditions, sustainability initiatives may not fully meet the ideals of original visions nor represent a complete avoidance strategy; instead, observed outcomes may represent emergent solutions to less-than-desirable institutional conditions as firms figure out what is possible to accomplish given existing resources, capabilities, and knowledge.

The Sustainability Leaders program represents an example of such an emergent strategy that adapts to the existing institutional environment rather than attempting to change it. In contrast to critics who claim that the Sustainability Leaders program represents yet another illustration of the company's "ten-year greenwashing" agenda, we have instead placed the choice of this individual initiative within the context of a decade of experiments that revolved around the common theme of how to define, capture, and communicate sustainability information to customers and suppliers. The initiative clearly deviates from an ideal version of what a sustainability index or label might be able to accomplish, but nonetheless represents at least what Walmart suggests is a "step in the right direction" that aligned with its emergent supplier-facing strategy.

In exploring strategic adaptation and learning-by-doing in the implementation of sustainability programs, Simon Zadek suggests that "judging and ultimately guiding corporate performance requires an examination of whether a business is *doing what it can do* given its range of external options and internal competencies."[55] Since aligning strategies, internal business capabilities, and external market environments is a long and uncertain task, Zadek points to the need to look at learning as one marker by which to guide and judge performance:

> A business's contribution to sustainable development therefore needs to be understood in terms of [whether it] takes full advantage of opportunities for learning and action in building social and environmental objectives into its core business by effectively developing its internal values and competencies.[56]

From this perspective, a close examination of what firms do, and how they learn from these experiences, pushes the discussion of implementing sustainability programs beyond solely examining top-leadership commitment or long-term visions to broader discussions of what is feasible under existing institutional and business conditions to accomplish in a reasonable time frame. In this case, one criterion for evaluating Walmart's future sustainability efforts is whether the company will continue to allow the experimentation and trial that explores the boundaries of what is possible or whether it will grow more conservative in managing to measurable outcomes in order to avoid public failure and criticism.

Limitations and Future Research

Walmart's emergent low-cost sustainability strategy raises numerous questions for future research and practice. One relates to exploring more companies attempting to find a profitable niche within a broader mass market for sustainable products, particularly given the high transaction costs in systemically defining, measuring, and marketing the sustainability of any individual product. A second question relates to the responsibilities of mass-market retailers like Walmart if they do enter into this marketplace. For instance, a potential criticism of Walmart's emergent supplier-focused strategy is that solely working with suppliers to encourage low-cost innovation may miss the opportunity to build consumer preferences for more sustainable products that creates pressure on less sustainable products and producers. Studying the balance between supplier- and customer-facing sustainability initiatives across multiple cases and over time remains an ongoing topic of research into the design and implementation of low-cost corporate-wide sustainability strategies.

Another limitation of exploring only a single case is that while we examine what Walmart insiders came to believe what was possible to accomplish, we did not present any external standard by which to evaluate the validity of these beliefs. The lack of comparative cases makes it difficult to clearly identify the counter-factual of what might have been accomplished if different strategies or more resources had been committed to the problem.

Moreover, our story cautions against solely using Walmart's own goals as a definite measure of success. While implementation gaps between initial visions and realized goals may reflect a lack of commitment, our analysis supports the finding of other researchers that these types of unpredicted outcomes also reflect learning processes that shape emergent strategies over time.[57] From this perspective, a challenge of using company's espoused goals as benchmarks to evaluate future progress is that such a strict adherence to intentional strategies might hinder the search for unexpected innovations that accompany the implementation of complex goals through emergent strategies.

Instead of providing a definitive benchmark by which to evaluate Walmart's progress, we suggest that the case illustrates that questions of what counts, and who does that counting, remains at the heart of the broader firm and societal level issues of sustainable development. For instance, another limitation of our study is that we have looked mainly at the process of defining sustainability from the corporation's own perspective; we likely missed many issues that other actors might suggest are needed to enhance a broad sustainability agenda. For example, our interviews included scant discussion of government, even when the provision of public goods was the central topic. Nor did the sustainability participants discuss labor standards or wages when defining factors to include in sustainability standards, even though such issues are clearly expressed in Walmart's supplier code of conduct and sustainable agriculture initiative. Nor did a measure of product quality become a part of the "Live Better" Scorecards, despite an argument that the durability of any product might be strongly related to its long-term environmental impact. Issues of corruption might have been included too, particularly considering accusations that later emerged that Walmart Mexico made questionable payments to political officials during the same time period that it was establishing its sustainability program.[58]

Walmart's experiences illustrate that any sort of holistic set of criterion of how to evaluate the sustainability of organizations and products still remains contested and uncertain, suggesting that firms that wish to enter into this nascent marketplace might better approach it from the point of view of an emerging rather than developed marketplace. In developed market settings, institutions often work so quietly behind the scenes that market participants simply take them for granted. However, in emergent market conditions, stable rule-making, collective understanding, and credible communications cannot be expected, and firms often must respond and adapt to an institutionally fragmented, contested market environment. Managing in such complex and dynamic environments requires joint work by multiple actors to build new forms of market intermediation to provide meaningful and credible information to customers and suppliers as well as cross-sectoral cooperation to produce a level playing field better able to define the emergent rules of market competition. It also requires companies to actively manage strategic learning and adaptation processes as they inevitably respond to unexpected deviations from original designs.

Acknowledgments

We would like to thank our two schools, the Darla Moore School of Business at the University of South Carolina and the Sam M. Walton College of Business at the University of Arkansas, for their support of this project.

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Notes

1. Peter Dauvergne and Jane Lister, "Big Brand Sustainability: Governance Prospects and Environmental Limits," *Global Environmental Change*, 22/1 (February 2012): 36-45; Chris Laszlo, *Sustainable Value: How the World's Leading Companies Are Doing Well by Doing Good* (Stanford, CA: Stanford Business Books, 2008).
2. H. Lee Scott Jr., "Twenty First Century Leadership," Remarks as Prepared for Delivery, Bentonville, AR, Wal-Mart, 2005, accessed January 29, 2016, http://news.walmart.com/executive-viewpoints/twenty-first-century-leadership.
3. Lynne M. Anderson and Thomas S. Bateman, "Individual Environmental Initiative: Championing Natural Environmental Issues in U.S. Business Organizations," *Academy of Management Journal*, 43/4 (August 2000): 548-570; Pratima Bansal, "From Issues to Actions: The Importance of Individual Concerns and Organizational Values in Responding to Natural Environmental Issues," *Organization Science*, 14/5 (2003): 510-527; Monika I. Winn and Linda C. Angell, "Towards a Process Model of Corporate Greening," *Organization Studies*, 21/6 (November 2000): 1119-1147; Maurizio Zollo, Carmelo Cennamo, and Kerstin Neumann, "Beyond What and Why: Understanding Organizational Evolution towards Sustainable Enterprise Models," *Organization & Environment*, 26/3 (September 2013): 241-259; Sanjay Sharma, "Managerial Interpretations and Organizational Context as Predictors of Corporate Choice of Environmental Strategy," *Academy of Management Journal*, 43/4 (August 2000): 681-697.
4. Henry Mintzberg and James A. Waters, "Of Strategies, Deliberate and Emergent," *Strategic Management Journal*, 6/3 (July-September 1985): 257-272.
5. For instance, see Forest Reinhardt, "Environmental Product Differentiation: Implications for Corporate Strategy," *California Management Review*, 40/4 (Summer 1998): 43-73.
6. Unless otherwise indicated, all quotations in this manuscript were collected during a set of interviews during our study of Walmart's sustainability strategy and are part of a series of case studies. The cases were produced through a joint project of the University of South Carolina and the University of Arkansas and are publicly available at http://moore.sc.edu/walmartcases and http://sustainabilitycases.uark.edu. The cases were written solely for teaching and academic purposes; there was no financial or consulting relationship between the academic authors and Walmart.
7. Bansal, op. cit.; Donal Crilly, Maurizio Zollo, and Morten T. Hansen, "Faking It or Muddling Through? Understanding Decoupling in Response to Stakeholder Pressures," *Academy of*

Management Journal, 55/6 (December 2012): 1429-1448; Magali A. Delmas and Michael W. Toffel, "Organizational Responses to Environmental Demands: Opening the Black Box," *Strategic Management Journal*, 29/10 (October 2008): 1027-1055; Winn and Angell, op. cit.; Simon Zadek, *The Civil Corporation* (London: Earthscan, 2007); Zollo et al., op. cit.

8. Richard M. Cyert and James G. March, *A Behavioral Theory of the Firm* (Englewood Cliffs, NJ: Prentice-Hall, 1963); Mintzberg and Waters, op. cit.; Andrew M. Pettigrew, "The Character and Significance of Strategy Process Research," *Strategic Management Journal*, 13/S2 (Winter 1992): 5.
9. Andrew H. Van de Ven, "Suggestions for Studying Strategy Process: A Research Note," *Strategic Management Journal*, 13/S1 (Summer 1992): 169; Brian T. Pentland, "Building Process Theory with Narrative: From Description to Explanation," *Academy of Management Review*, 24/4 (October 1999): 711-724; Pettigrew, op. cit.
10. Ann Langley, "Strategies for Theorizing from Process Data," *Academy of Management Review*, 24/4 (October 1999): 691-710.
11. Thomas B. Lawrence, "Institutional Strategy," *Journal of Management*, 25/2 (April 1999): 161-187, at p. 167.
12. On the whole, Walmart left implementation decisions of its sustainability goals across its global operations to local subsidiaries. Over time, they began to implement globally organized initiatives, such as the sustainable agriculture project that coordinated cross-national activities.
13. Scott, op. cit.
14. Walmart, "Walmart Marks Fulfillment of Key Global Responsibility Commitments," Bentonville, AR, 2015, accessed December 12, 2015, http://news.walmart.com/news-archive/2015/11/17/walmart-marks-fulfillment-of-key-global-responsibility-commitments.
15. N. Craig Smith and Robert Crawford, "Walmart: Love, Earth (A)," INSEAD Case 09/2011-5830, Bedfordshire, UK, 2011; Marc Gunther, "Green Gold?" *Fortune*, September 3, 2008, pp. 75-78.
16. Conrad MacKerron, "Prius Envy and the Greening of Wal-Mart: A Blind Spot for the Human Cost," GreenBiz.com, 2008, accessed December 30, 2015, http://www.greenbiz.com/blog/2008/06/29/prius-envy-and-greening-wal-mart-blind-spot-human-cost; Wal-Mart Watch, "It's Not Easy Being Green: The Truth behind Wal-Mart's Environmental Makeover," 2007, accessed December 30, 2015, http://makingchangeatwalmart.org/factsheet/walmart-watch-fact-sheets/its-not-easy-being-green-the-truth-behind-wal-marts-environmental-makeover/.
17. Marc Gunther, "The Green Machine," *Fortune*, July 31, 2006, pp. 34-42; Edward Humes, *Force of Nature: The Unlikely Story of Wal-Mart's Green Revolution* (New York, NY: Harper Business, 2011).
18. Smith and Crawford, op. cit.
19. Erica L. Plambeck and Lyn Denend, "The Greening of Wal-Mart," *Stanford Social Innovation Review*, 6/2 (Spring 2008): 52-59.
20. Jean Friedman-Rudovsky, "Walmart Greenwashing: Workers Pay the Price," *Miami New Times*, January 6, 2011. http://www.miaminewtimes.com/news/walmart-greenwashing-workers-pay-the-price-6379374
21. Alan Murray, "Waste Not: Wal-Mart's H. Lee Scott Jr. on What the Company Is Doing to Reduce Its Carbon Footprint—and Those of Its Customers," *The Wall Street Journal*, March 24, 2008. https://www.wsj.com/articles/SB120611920074555201
22. Andrea Thomas followed Kistler in September 2010, serving through December 2014. Manuel Gomez followed Thomas, and Laura Phillips assumed the role January 1, 2016, reporting to Kathleen McLaughlin, President of the Walmart Foundation and Chief Sustainability Officer for Walmart.
23. Mike Duke, "Mike Duke, President and CEO of Walmart: Sustainability Milestone Meeting July 16, 2009," Remarks as Prepared for Delivery, Walmart, Bentonville, AR, 2009, accessed April 20, 2011, http://walmartstores.com/download/3880.pdf.
24. Ibid.
25. Arizona State University and the University of Arkansas jointly administered the Sustainability Consortium, but the official university affiliation grew to include Nanjing University and Wageningen University.
26. Joel Makower, "Inside Walmart's Sustainability Consortium," GreenBiz.com, 2009, accessed February 7, 2017, http://www.greenbiz.com/blog/2009/08/17/inside-walmarts-sustainability-consortium; By 2015, Consortium membership included over one hundred

global NGOs, government agencies, academics, and firms representing over $2 trillion in market capitalization.

27. See Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York, NY: Cambridge University Press, 1990).
28. This section is not designed to provide a full overview of the Consortium history, but instead focuses on the primary issues that shaped the limitations of the sustainability index as compared with its initial vision. For other histories, see the case study by David Hyatt and Andrew Spicer, 2012, "Walmart's Sustainability Journey: Defining Sustainable Products (B)," http://scholarworks.uark.edu/cgi/viewcontent.cgi?article=1006&context=scmtwscp or the case study by N. Craig Smith and Robert Crawford, 2011 "Wal-Mart's Sustainable Product Index," INSEAD Case 07/2011-5751. https://centres.insead.edu/social-innovation/what-we-do/documents/5751-WalMart-A-CS-EN-0-07-2011-w.pdf.
29. More information about the Sustainability Consortium can be found on its website at http://www.sustainabilityconsortium.org/.
30. Target, "Introducing the Target Sustainable Product Standard," 2013, accessed January 13, 2015, https://corporate.target.com/discover/article/introducing-the-Target-Sustainable-Product-Standard, 2013.
31. Space does not permit a full accounting of Walmart's product sustainability initiatives, which were numerous. The reader is directed to Walmart's Global Responsibility Reports for more detail.
32. Andy Serwer, "Wal-Mart Chairman: How We Came to Embrace Sustainability," *Fortune*, April 17, 2012, accessed February 7, 2017, http://fortune.com/2012/04/17/wal-mart-chairman-how-we-came-to-embrace-sustainability/. Mr. Walton was responding to a question that he had heard directed towards a Walmart panelist leading an earlier session.
33. Walmart, "Walmart Sustainability Index—Program Overview," Bentonville, AR, 2013, accessed December 30, 2015, http://customers.icix.com/?wpfb_dl=34. Note that there is not a direct articulation between the number of categories completed by the Consortium and Walmart's categories—Walmart's are more granular.
34. Ibid.
35. GreenBiz, "Inside the Sustainability Consortium: Session Note with Jon Johnson and Devon Douglas," State of GreenBiz Forum, 2011, accessed January 13, 2015.
36. Walmart, "Walmart Sustainable Product Expo Supplier Commitments," Bentonville, AR, 2014, accessed January 13, 2015 http://corporate.walmart.com/walmart-sustainable-product-expo-/_news_/supplier-commitments.
37. Walmart, "Introducing the Walmart Sustainability Leaders Shop," Bentonville, AR, 2015, accessed May 20, 2015, http://corporate.walmart.com/global-responsibility/environmental-sustainability/sustainability-leaders/introducing-the-walmart-sustainability-leaders-shop.
38. Ibid.
39. Ibid.
40. Stacy Mitchell, "Walmart Puts Green Label on Products It Doesn't Even Claim Are Green," *The Huffington Post*, 2015, accessed May 14, 2015, http://www.huffingtonpost.com/stacy-mitchell/walmart-puts-green-label-_b_6807876.html.
41. Jeffrey Hollender, "Is Walmart Selling Unsustainable Products from 'Sustainability Leaders'?" GreenBiz, 2015, accessed May 14, 2015, http://www.greenbiz.com/article/walmart-unsustainable-products-sustainability-leaders.
42. Walmart, "Sustainability Leaders Shop."
43. Mitchell, op. cit.; Guy Pearse, *Greenwash: Big Brands and Carbon Scams* (Collingwood, Australia: Black Inc., 2012).
44. Tarun Khanna, Krishna Palepu, and Richard Bullock, *Winning in Emerging Markets: A Road Map for Strategy and Execution* (Boston, MA: Harvard Business Press, 2010); Tarun Khanna, Krishna G. Palepu, and Jayant Sinha, "Strategies that Fit Emerging Markets," *Harvard Business Review*, 83/6 (June 2005): 63-76.
45. George A. Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," *The Quarterly Journal of Economics*, 84/3 (August 1970): 488-500; Khanna et al., *Winning in Emerging Markets*.
46. Nilanjana Dutt, Olga Hawn, Elena Vidal, Aaron K. Chatterji, Anita M. McGahan, and Will Mitchell, "How Open System Intermediaries Address Institutional Failures: The Case of Business Incubators in Emerging-Market Countries," *Academy of Management Journal*, 59 (2016): 818-840; Khanna et al., *Winning in Emerging Markets*; Johanna Mair, Ignasi Marti,

and Marc Ventresca, "Building Inclusive Markets in Rural Bangladesh: How Intermediaries Work Institutional Voids," *Academy of Management Journal*, 55 (2012): 819-850.
47. Dutt et al., op. cit.
48. Tim Bartley, "Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions," *American Journal of Sociology*, 113 (2007): 297–351.
49. Pure Strategies, "The Path to Product Sustainability: A Pure Strategies Report," Gloucester, MA, 2014, accessed February 7, 2017 info.purestrategies.com/.
50. Khanna et al., *Winning in Emerging Markets*; Khanna et al., "Strategies that Fit Emerging Markets."
51. Robert Z. Lawrence and Roy Suddaby, "Institutions and Institutional Work," in *The SAGE Handbook of Organization Studies*, ed. Stewart R. Clegg, Cynthia Hardy, Robert Z. Lawrence, and Walter R. Nord (Thousand Oaks, CA: Sage, 2006); Thomas B. Lawrence, Roy Suddaby, and Bernard Leca, eds., *Institutional Work: Actors and Agency in Institutional Studies of Organizations* (New York, NY: Cambridge University Press, 2011).
52. John W. Selsky and Barbara Parker, "Platforms for Cross-Sector Social Partnerships: Prospective Sensemaking Devices for Social Benefit," *Journal of Business Ethics*, 94/S1 (July 2010): 21-37, at p. 26.
53. See Bartley, "Institutional Emergence in an Era of Globalization," pp. 297-351; Tim Bartley, "Standards for Sweatshops: The Power and Limits of Club Theory for Explaining Voluntary Labor Standards Programs," in *Voluntary Programs: A Club Theory Perspective*, ed. Matthew Potoski and Aseem Prakash (Cambridge, MA: MIT Press, 2009), 107-32.
54. See also Timothy J. Hargrave and Andrew H. Van de Ven, "A Collective Action Model of Institutional Innovation," *Academy of Management Review*, 31/4 (October 2006): 864-888; Lawrence and Suddaby, op. cit.; Lawrence, op. cit.; Lawrence et al., op. cit.
55. Zadek op. cit., p. 37.
56. Ibid.
57. Mintzberg and Waters, op. cit.; Crilly et al., op. cit.
58. David Barstow and Alejandra Xanic von Bertrab, "The Bribery Aisle: How Wal-Mart Got Its Way in Mexico," *The New York Times*, December 18, 2012, A1.