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Walmart's Sustainability Journey: Andy Ruben and the Design of Organizational Structures and Systems (B)

In October 2007, Andy Ruben gazed over the expanse of blue cubicles at the Walmart corporate offices, reflecting on the strategic structures and systems he had established to meet the company's ambitious sustainability goals—100% renewable energy, zero waste, and the sale of sustainable products—set by CEO Lee Scott in a landmark speech in October 2005. Only months before that speech, Scott had tapped him to become Walmart's first Vice-President for Sustainability, cementing the sustainability leadership that Ruben had shown in the year of exploration leading up to the speech. Now, in line with a Walmart philosophy that stated that the top management team should learn all parts of the business, Ruben would soon take on a new job as Vice President, Sourcing and Operations, for Walmart's private brands. He would be handing over the sustainability reins to a successor, Matt Kistler. After two years in this position, Ruben had a unique opportunity to reflect on what he had done. Had he taken the right approach to bring about the change that Lee Scott wanted?

As he considered this question, he realized that his most lasting legacy would be the decentralized approach he had taken to developing the company's sustainability strategy. First, he had formed 14 Sustainable Value Networks (SVNs), charged with seeking new sustainability opportunities across the wide range of Walmart's products and operations. Second, he had explicitly included multiple external stakeholders in the network structure to ensure that new people, ideas, and approaches could interact with Walmart's existing expertise in seeking out

© 2012 Board of Trustees of the University of Arkansas and the University of South Carolina. This case study, designed to be read alone or as part of a series, was prepared by David Hyatt of the University of Arkansas and Andrew Spicer of the University of South Carolina. The case was developed solely as a basis for class discussion and is not designed to serve as a source of primary data or be construed as a commentary on management techniques. The authors thank Andy Ruben for his assistance and insights in the creation of this case. For more information about the Walmart Sustainability Case Project, a joint venture of the University of South Carolina and the University of Arkansas, please visit the project website: <http://sustainabilitycases.kenexcloud.org/about>.

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new directions and opportunities. Third, instead of building a large corporate office that led and controlled sustainability initiatives, he had deliberately developed a small sustainability office charged with forming and supervising the SVN and engaging in other efforts to spread sustainability throughout the organization. This decentralized organizational structure fit with Walmart's view of sustainability as an opportunity for the organization to discover, through trial and experimentation, what a company of its size and power could achieve.

Sustainable Value Networks

The 14 SVNs that Ruben organized revolved around the three aspirational goals: waste, energy, and products (see Exhibit 1). In designing the networks, Ruben placed responsibility at the same sites where capabilities were present to implement change: "We were intentional to organize around how the business was organized, which was merchandizing units as opposed to back-end technologies and capability."ⁱ The 14 networks corresponded as much as possible to existing business units, especially as they corresponded to broader sustainability goals. Thus, to address the challenge of 100% waste, the networks pertained to operations, management, and packaging. To address the challenge of renewable energy, separate SVNs focused on alternative fuels, buildings, logistics, and greenhouse gasses. For sustainable products, the networks included food and agriculture, electronics, chemical-intensive products, textiles, seafood, jewelry, forest products, and China. But these networks were not designed to be silos; they were to be malleable and interconnected, enabling them to address the full range of the company's footprint: upstream in the supply chain, internal in operations, and downstream to the consumer.

Each value network consisted of cross-functional teams, led by an executive sponsor and a network captain, the latter usually selected from among Walmart senior management in the relevant area. The members also included representatives from external groups, such as suppliers, nongovernmental organizations (NGOs), consultants, federal and state agencies, universities, trade associations, and third-party verification providers. (See Exhibit 2.)

Sometimes the collaboration even extended to competitors, especially if their participation might help push a technology to scale.

The SVNs also were charged with developing quick wins with short-term paybacks, intermediate projects designed for two- to three-year paybacks, and game changers that demanded long-term

investments of time and resources (initially, the goal was at least six quick wins, two innovation projects, and one game changer). The networks developed many stories of quick wins, which could be quickly communicated to the other networks and throughout the organizations. For example,

- Innovations in plastics recycling—the “sandwich bale”—saved \$3.5 million in 2007 and diverted 1,100 tons of plastic from landfills.
- The sale of 100 million compact fluorescent bulbs saved customers \$3 billion in energy costs and reduced CO₂ emissions by 25 million metric tons.
- LED lighting in refrigerator cases was expected to save \$2.6 million/year and reduce CO₂ emissions by 35 million pounds/year.ⁱⁱ

These stories of successes, and many others, were shared widely across the company, including in frequent meetings with the CEO and the senior leadership team. (See Exhibit 3 for a longer list of sustainability milestones at the time.) Ruben actively worked to ensure that early successes were highly publicized, because

Every time we told a story publicly we were not only recognizing and celebrating an individual, we were also showing what was possible, allowing each person hearing the story to consider what they could be doing.

The shared stories created a sense of traction and social purpose; perhaps most important, they also demonstrated quick business results.

While stories of quick wins built momentum and commitment throughout the company, Ruben still believed that the long-term payback would come from mobilizing the networks to restructure the industries in which they operated through game-changing innovations:

As an organizing principle, when we introduced the networks, we talked about their role to shift the businesses that we're in. We were very intentional about that. So, although the back-end work between agriculture and food and cotton and textiles is very similar, we were very intentional to have separate networks for textiles and food and agriculture; because we wanted to, actually, evolve how the business worked. And we wanted the role of the network to be able to convene and to transition its own industry.

While the networks were an innovative approach for creating project visibility and “safe” sites for experimentation, Ruben hoped they would evolve into hubs for radical innovation that could have major impacts on Walmart’s environmental impact and bottom line.

Sustainability 360

Learning from its quick wins and the power of engaging constituents in innovating for sustainability, Walmart announced its *Sustainability 360* in February 2007 (Exhibit 4). This program aimed to articulate and expand Ruben's inclusive strategy, engaging employees, suppliers, NGOs, and communities in sustainability efforts that would extend beyond the work being done within the SVNs. For example, Ruben helped develop the concept of personal sustainability projects (PSPs), designed to encourage Walmart employees to identify an area of their life or community that was not sustainable and develop a plan to fix it by making small changes to their everyday habits. The program was piloted in 2006 and formally announced in April 2007. By September 2007, 248,000 U.S. associates reported having a PSP, with outcomes that included, for example, recycling of almost 1 million pounds of aluminum, glass, paper, and plastic. Other projects included healthy meals, quitting smoking, and exercising. Some widely shared PSPs gained visibility on the company website, an effort to further reinforce the notion that everyone should be participate in Walmart's sustainability programs.ⁱⁱⁱ

Ruben also sought to extend sustainability mindsets throughout the organization by facilitating more than 20 "eat what you cook" sustainability trips for executives, removing them from the comfort of the boardroom and allowing them to experience firsthand the impact of environmental degradation. Ruben believed that these field trips created visceral experiences that gained traction in a world of financial analysis within the corporation:

Each trip was centered around a top Walmart Executive and designed based on their personality, interest and role in the company. We asked each executive to invite their top 3-4 people in their organizations which further identified leaders and engaged them in the journey. A big secondary benefit was the stories that followed from these 1 night trips. For instance, Mike Duke went to the Arctic Circle, Lee Scott went to visit with Maple Sugar Farmers and then stayed overnight at Mt Washington Observation Center, and Doug McMillon went to the largest landfill in NY.

These trips, and the stories they evoked, became part of broader efforts to build commitment to sustainability efforts throughout the organization.

The concept of partnering was also central to the networks and Sustainability 360. These partnerships might include supply chain relations, though increasingly, they featured outside constituencies that Walmart had previously resisted or ignored. Ruben and the networks instead

began inviting these groups to the table. For example, the environmental collective Carbon Disclosure Project had long pressured the retailer to collect greenhouse gas emissions data; now Walmart agreed to engage with the group.^{iv} The rationale was that radical changes to the business model would not happen without the kind of pressure and knowledge provided by these sources. (See Exhibit 5 for examples of the kinds of projects undertaken with NGOs and universities, originating from both within and outside of the networks.) Partnering with external stakeholders was critical for Ruben, who regarded them as instrumental for infusing new thinking and bringing new capabilities into the company, and its supply chain, without the benefits of a large corporate office for sustainability:

My whole framework was resourcing. I remember talking with people from the Environmental Defense Fund. We just kept pushing on ways to tap into their resources. My big plan was that I'd get EDF to open an office in Northwest Arkansas. The second they would do that, I would take it to the National Resources Defense Council. I would get NRDC to open an office in Arkansas. Then I would take it to 15 more NGOs. And my whole thought was, I've only got a small number of people, so I've got to figure out a model that's going to allow us to be successful.

The Sustainability Office

Ruben deliberately chose to develop a relatively small corporate sustainability group. He believed strongly that innovation needed to emerge from within the organization if it was to produce long-term results; therefore, Ruben hoped to embed responsibility for sustainability within the business units of the organization, rather than assign it to a strong central office. To enable this diffusion, he hired a small team to support the business units in their search for sustainability:

We organized it, eventually, like a strategy team. First we hired Janelle Kearsley whose job was to think about incentives and alignment. Janelle worked on setting up the SVNs, alignment of pay structures and incentives, the eat-what-you-cooks, milestone meetings, and PSP. Then we hired Tyler Elm who was, essentially, in charge of the building blocks of the strategy—managing the SVNs. And the third member of a strategy team Harriet Hentges who was in charge of stakeholder relationships. Through these relationships we would find the leading edge of research—what was going on in the world.

Ruben referred to Walmart's efforts as a sustainability strategy precisely because the goal was to embed its implementation into the everyday strategic activities of the organization as a whole:

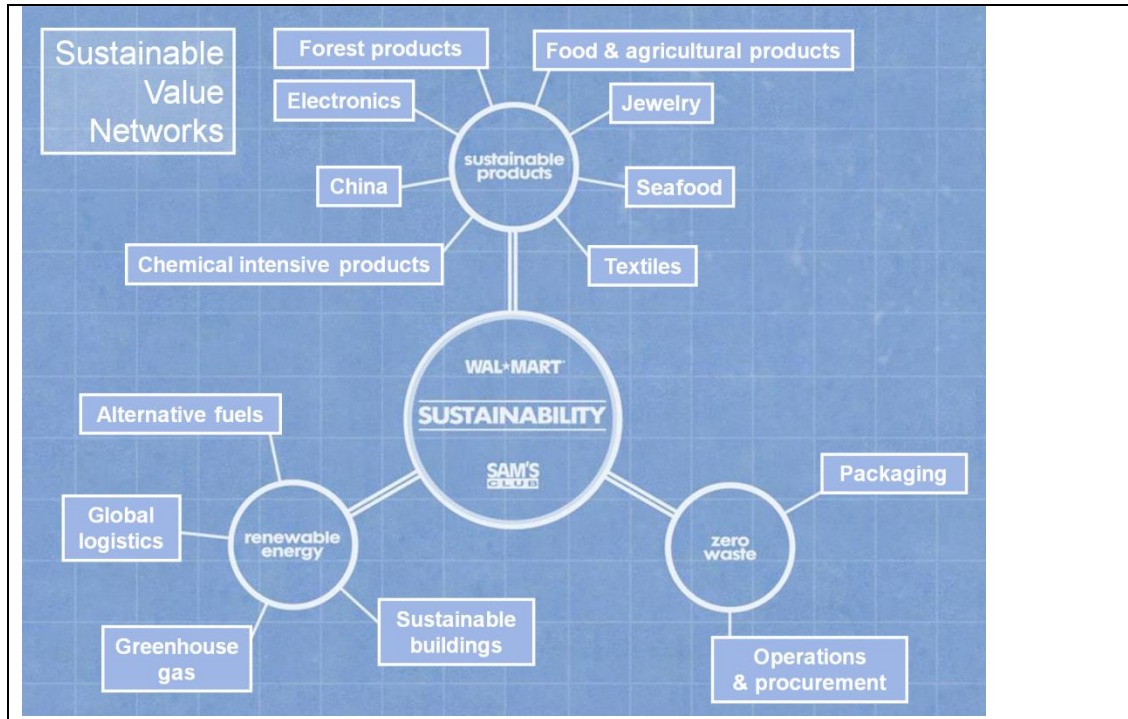
Business isn't done in the strategy group; business is done in the business units. The strategy group is a very small group. There's no power there, right? The power of sustainability was that it was being done in the organization.

Although individual networks and business units might implement many different types of initiatives, the job of the central office was to design central coordination and communication to allow new ideas to emerge from within the business units.

Looking Forward

Considering the company's reputation for innovation and rapid change capabilities, Ruben was not surprised that Walmart had identified an opportunity in sustainability and moved quickly. It has already made significant progress in energy and waste, though a systematic strategy for products was lagging. Because most of the impact of the company lay in its supply chain, a comprehensive strategy for defining and measuring sustainable products would be a significant challenge for his successor. Another challenge was finding ways to maintain the culture of experimentation and trial that defined the early period of innovation within the SVNs. He knew that as the program grew bigger and achieved more attention, there would be growing pressure for central coordination and control of activities through the sustainability office. But in Ruben's mind, the broad goal to use a sustainability lens to transform the business in which Walmart competed could be accomplished only if sustainability became firmly embedded throughout the organization as a whole.

Exhibit 1: Sustainable Value Networks




Source: Walmart Slide excerpted from presentation shown to merchants April 2007, courtesy of Walmart

Exhibit 2: SVN Membership



Source: Walmart Slide excerpted from presentation shown to merchants April 2007, courtesy of Walmart

Exhibit 3: Pages 6–8 from Walmart’s Sustainability Progress to Date 2007-2008 report

 Company		Sustainability Progress to Date 2007–2008 6
<p>The following summary provides a top-line overview of the progress we’ve made as we work to become a more sustainable company. We recognize that our process for measuring progress has not been, and is not, perfect. In many cases, there are inconsistencies in baselines and target dates for achieving our goals. This is largely a consequence of the fact that goals have been set by individual networks and teams across the business. As we move forward and work to promote greater accountability throughout the business, we will need to adopt a more systemic approach for benchmarking and measuring our progress.</p>		
<h3>Performance Overview</h3>		
<h4>Company</h4>		
Key performance indicator	2006/2007	
Revenue	\$344,992,000,000	
Net profit	\$12,178,000,000	
Number of Associates (employees)	1,900,000	
Profit per employee	\$6,409.47	
Number of stores globally as of 7/31/07	7,022	
Number of markets in which we operate	14	
Customers per week	176,000,000	
Number of board members that are independent from the management of the company	11 out of 15	
Accessibility to third-party global ethics helpline for suppliers, customers, Associates	Available in 45 countries – 140 different languages	
<h4>Community</h4>		
<h5>Jobs and Opportunities</h5>		
Key performance indicator	2006/2007	
Average household savings in United States	\$2,500	
Promotions to management positions in 2006	13,000	
Number of designated communities with Job and Opportunities Zones (JOZ)	7 Active and 3 Scheduled	
<h5>Store Siting</h5>		
Key performance indicator	2006/2007	
Acres permanently preserved through Acres for America Program	395,000 – three times the acreage U.S. stores occupy	
Number of brownfield sites developed in United States	4	
<h5>Charitable Giving</h5>		
Key performance indicator	2006/2007	
Total contributions	\$418,328,325	
Company contributions (cash and in-kind donations)	\$301,804,191	
Customer and Associate donations	\$116,524,134	
Number of Associate volunteer hours	Nearly 1,000,000	
<h4>Ethical Sourcing</h4>		
Key performance indicator	2006/2007	
Number of factory audits	16,700 in 8,873 factories	
Percentage of unannounced inspections	26 percent	
Total number of factories audited	8,873	
Number of direct import factories audited	6,757	
Number of domestic import factories audited	2,116	
Percentage of factories receiving high-risk violations	40.3	
Number of factories disapproved	23	
Inspection enhancements in 2006	Addition of environmental and health & safety criteria to ethical standards	
<h4>Associates Health Care</h4>		
Key performance indicator	2006/2007	
Percentage of U.S. Associates who have medical coverage	90.4 percent	
Percentage of U.S. Associates covered by Wal-Mart medical plans	47.4 percent	
Percentage of U.S. Associates selecting coverage for the first time that previously had no coverage	53.2 percent	
Percentage of U.S. Associates selecting coverage for the first time who say they previously were unable to afford coverage	27.5 percent	
Percentage of U.S. Associates selecting coverage for the first time who say they were previously on Medicaid	7.8 percent	
Percentage of U.S. Associates who say they receive medical coverage through Medicaid or another state program	3.41 percent	
<h4>Health Clinics</h4>		
Key performance indicator	2006/2007	
Number of in-store health clinics	More than 75	
Percentage of in-store retail clinic customers who say they would have gone without treatment if the in-store clinic was not available	10–15 percent	
Percentage of Wal-Mart health clinic customers who state they are uninsured	50 percent	
<h4>\$4 Generic Prescription Program</h4>		
Key performance indicator	2006/2007	
Estimated customer savings through \$4 prescription program	\$610,000,000	
Percentage of prescriptions that are filled without insurance	30 percent	



Company

Sustainability Progress to Date 2007–2008 7

Personal Sustainability Project

Key performance indicator	2006/2007
Number of U.S. Associates who say they have a PSP	248,340
Total miles U.S. Associates say they have walked, biked and swum	More than 1,109,421 miles
Combined weight U.S. Associates say they have lost	184,315 pounds
Number of U.S. Associates who say they have quit or reduced smoking	19,924
Additional number of U.S. Associates who say they have also shared the PSP project with their friends, family and community members outside of Wal-Mart	375,824
Pounds of materials U.S. Associates say they have recycled	675,538 pounds of aluminum, 282,476 pounds of glass, 5,953,357 pounds of paper and cardboard, and 3,177,851 pounds of plastic

Wages and Benefits

Key performance indicator	2006/2007
Average full-time hourly wage in United States	\$10.76
Sam's Club and Wal-Mart USA performance bonus awards	\$529,800,000

Diversity

Key performance indicator	2006/2007
Women in official and manager positions	39.69 percent
Number of officers missing their diversity goals	1
Percentage of U.S. workforce that is a minority	33.15 percent
Amount spent on supplier diversity program in 2006	More than \$4,200,000,000
Percentage of recruitment from historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs) and women's colleges in 2006	38 percent
Number of Associates engaged in diversity mentoring program in 2006	212,000

Environment

Footprint

Overall

Key performance indicator	2006/2007
Annual investment to meet sustainability goals	\$500 million

Buildings

Key performance indicator	2006/2007
Existing building efficiency. Target: 20 percent increase by 2012	Tested and identified a 15 percent increase in efficiency
High-efficiency stores	Opened two high-efficiency prototypes in 2007 that are expected to be 20 percent more efficient
New building efficiency. Target: Open viable prototype that is 25–30 percent more efficient by 2009	2008 store prototype expected to be 25 percent more efficient
Renewable energy. Target: Long-term goal of 100 percent renewable power	22 on-site solar power commitments announced – total power production estimated to be 17 million kWh (kilowatt-hours) per year

Transportation

Key performance indicator	2006/2007
Fleet efficiency. Target: Identify 25 percent reduction by FYE08	15 percent actual gain; 10–13 percent tested and identified for implementation in future tractors.
Number of trucks in fleet in 2005	6,936
Number of trucks in fleet in 2006	7,075

Zero Waste

Key performance indicator	2006/2007
Solid waste reductions per store/club in United States. Target: 25 percent reduction weight by October 2008	Measurement tool in development

Climate Change

Key performance indicator	2006/2007
Global CO ₂ emissions	20,388,574 tons
Direct CO ₂ emissions	5,801,302 tons
Indirect CO ₂ emissions (electricity)	14,587,272 tons



Company

Sustainability Progress to Date 2007-2008 8

Sustainable Products

Seafood

Key performance indicator	2006/2007
Marine Stewardships Council (MSC) – certified products Target: Full certification by 2010	22; all farmed shrimp factories certified by ACC, in process are on shrimp farm

Electronics

Key performance indicator	2006/2007
ROHS compliant PCs and large electronics – toward goal of full compliance by end of 2007	Majority of PCs and large electronics are ROHS compliant
Electronics waste (e-waste)	124,000 pounds recycled through over 40 recycling events in 2007

Compact Fluorescent Light Bulbs

Key performance indicator	2006/2007
Compact fluorescent bulb sales	100 million bulbs sold between October 1, 2006 and September 30, 2007

Chemicals in Products

Key performance indicator	2006/2007
"Priority chemicals" or "chemicals of concern"	First three chemicals announced – Propoxur, Permethrin, NPEs (Nonyl Phenol Ethoxylates)

Textiles

Key performance indicator	2006/2007
Organic cotton	World's largest buyer in 2006 – estimated 20 percent increase in sales in 2007
Conversion cotton	World's largest buyer in 2007 – purchased more than 10 million pounds in 2007
Alternative fibers	Estimated 15 percent increase in sales in 2007

Wood Products

Key performance indicator	2006/2007
Sustainable harvested wood	100 percent of ASDA's (UK) hardwood garden furniture is certified by the Forest Stewardship Council

Supply Chain

Packaging

Key performance indicator	2006/2007
Percentage packaging reduction	2,000 vendors logged onto scorecard and over 100 products submitted
Number of U.S. stores with total conversion to compacted detergent	1,519

Note: All numbers are global unless otherwise noted.

Exhibit 4: Sustainability 360



Exhibit 5: Sample Partnerships with NGOs and Universities

Goals	SVN	NGO/University Partnerships and Activities
100% Renewable Energy	Global Greenhouse Gas	Environmental Defense Fund (EDF) : Reverse growth curve for greenhouse gas emissions; improve energy efficiency in stores Carbon Disclosure Project (CDP) : Help suppliers manage greenhouse gas emissions; reduce Walmart’s total carbon footprint
	Alternative Fuels	EDF : Increase truck fleet fuel efficiency; improve packaging Rocky Mountain Institute (RMI) : Hybrid diesel–electric trucks to improve fuel efficiency Clinton Climate Initiative (CCI) : Explore new technologies, including LEDs and solar power
	Global Logistics	RMI : Sustainability in jobs, products, and processes; monitor environmental processes of suppliers; assist suppliers with process innovation; oversee chain of custody for eco-labeled products; improve logistics program
	Buildings	RMI : Cut energy use in stores; decrease heating and cooling costs CCI : Efficient building materials and LED lighting EDF : Sensor-activated, low flow faucets to reduce water flow by 80%
Zero Waste	Waste	EDF : Reduce plastic shopping bag waste
	Packaging	EDF : Reduce, reuse, and recycle plans; create educational materials for customers CDP : Measure energy to create products throughout supply chain
Sustainable Products	Chemical Intensive Products	EDF : Introduce chemical safety standards for suppliers; reduce toxic components in products
	Electronics	Green Electronics Council (GEC) : Improve environmental and social performance of electronic products; develop scorecard
	Food, Agriculture, Seafood	Marine Stewardship Council (MSC) : Certification of fisheries that meet environmental standards World Wildlife Fund (WWF) : Help boat operators prepare for certification; increase fisheries and processing plants with MSC certification Mercy Corps & USAID : Improve lives of small-scale farmers in Guatemala Transfair : Supply fair trade–certified coffees
	Forest & Paper	WWF (Global Forest Trade Network) : Use responsible forestry; phase out illegal and unwanted wood sources; use wood products from certified sources
	Jewelry	Conservation International (CI) and Initiative for Responsible Mining Assurance : Jewelry with documented chain of custody; diamonds, gold, and silver will come from mines demonstrating environmental and social leadership
	China	EDF : Greening the China supply chain
	Textiles	Organic Cotton Exchange : Purchase cotton from farmers who use organic methods; support t-shirts made from transitional cotton (and farmers that make the transition to the organic process)
Source: Compiled by authors from press accounts and other public sources		

Endnotes

ⁱ Unless otherwise indicated, all quoted material from Andy Ruben came from personal interviews on July 6, 2011, and July 26, 2012, as well as follow-up conversations conducted expressly for the development of this case.

ⁱⁱ Walmart, 2008 Sustainability Progress to Date 2007–2008, <http://www.walmartstores.com/sites/sustainabilityreport/2007/companyPerformance.html>.

ⁱⁱⁱ Sacks, D. 2007. Working with the enemy, September 1, *Fast Company*. Available at: <http://www.fastcompany.com/magazine/118/working-with-the-enemy.html>.

^{iv} Serwer, A. 2005. Bruised in Bentonville, April 18, *Fortune*. http://money.cnn.com/magazines/fortune/fortune_archive/2005/04/18/8257005/index.htm Accessed 2009/5/5: CNN.