A Case Study of Wal-Mart's "Green" Supply Chain Management

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Summary

Supply chain management has been the cornerstone to Wal-Mart's success and remains their primary competitive advantage in the retail/department store industry. Their distribution system is generally regarded as the most efficient and they have an approach to supply chain management that has long emphasized visibility through the sharing of information with their suppliers. Although there are hundreds of logistical functions which allow Wal-Mart to be the price and logistics leader, the focus will be primarily on the company's newly adopted strategy of making logistical processes "green" and more environmentally conscious. According to the *Supply Chain Management Review,* Wal-Mart CEO Lee Scott committed the company to three ambitious goals: to be supplied 100 percent by renewable energy; to create zero waste; and to sell products that sustain Wal-Mart's resources and the environment.

Wal-Mart's 14 Sustainable Value Networks, the Network's structure, new "green" logistics technologies, and additional future initiatives will be considered along with counter arguments which suggest that Wal-Mart's green initiative is simply unsustainable. The main sticking point seems to be the same one that has long held back the adoption of better light bulbs, home solar panels, or hybrid cars. Upfront costs are unavoidable; and the promise of potential savings down the road does not resonate with consumers, or smaller Wal-Mart suppliers, the same way it does with big corporations. So that's the big question: How much will Wal-Mart invest in green technologies now to clean up its act down the road?

Introduction

Wal-Mart has undergone many growth stages since Sam Walton first decided to be the best retailer in the world. His initial strategy was to target low-income families in rural areas by offering significantly lower costs. When David Glass took over in 1988, Walton's mission was truly realized through the use of technology in distribution and supply chain logistics, which allowed Wal-Mart the opportunity to cut costs and lower prices for end users. Lee Scott took the reins in 2000 to steer Wal-Mart toward sustainability. Scott's business model to strengthen supply chain management processes by "going green" was a strategic decision that positively impacted Wal-Mart's growth, distribution techniques, and corporate identity. His knowledge of distribution systems and push for sustainability has transformed the company into an eco-friendly powerhouse that continues to cut costs and remain at the frontier of distribution systems technology.

Background

Wal-Mart leadership has done well to put the right people in the right seats on the bus to drive the company forward. Founder and original Wal-Mart CEO Sam Walton strategically chose his successor David Glass to lead the company in 1988. Art Turock claims that "the most impactful decision Sam Walton made during his reign was to select and develop successors equipped to lead Wal-Mart to the next level of complexity" (Turock, 2004). From 1988 to 1999, CEO David Glass transformed the company from just a retailer into a retail distributor, using technology to develop Walton's original goal while staying in line with his core values. While Sam Walton built his strategy on low prices to the masses, CEO David Glass enhanced his growth strategy through the use of technology.

Sophisticated technology boosted supply operations such that Wal-Mart's efficient retail stores became the manifestation of a fast and flawless distribution business. When Glass succeeded Walton, he believed that "technology would ultimately drive this business to be the size that it is" which was the fundamental difference that set his approach apart from that of Walton's (Turock, 2004). The late 80s and 90s began a technology boom, with the computer industry making rapid advancements. Glass identified this as a strategic opportunity to enhance business and distribution at an early stage in development. Emphasizing visibility through the sharing of information with suppliers, Glass reframed the company strategy in terms of *how* to be the low-cost operator and low-cost leader by focusing on logistics and distribution. A more advanced distribution system would move product faster and more efficiently, allowing Wal-Mart to maximize use of their suppliers as well as internal distribution lines. Glass used cutting edge technology to create a logistical competitive advantage in "an industry with high volume, inelastic pricing, fragmented market share, and inefficient distribution" (Turock, 2004). Because of David Glass' work, Wal-Mart's supply chain and distribution system is now regarded as the most efficient and remains their primary competitive advantage in the retail industry.

Going Green

Requirements

Lee Scott took control of Wal-Mart in 2000 with a newly adopted strategy of making logistical processes more economically friendly. "Green" logistics, at its core, means implementing a system that can independently monitor overseas suppliers to make sure they meet social and environmental standards. Though the push for becoming environmentally friendly is important, a global company like Wal-Mart must consider the transformation's effect on the bottom line. Lee Scott saw the two goals as intertwined: "being a good steward of the environment and being profitable are not mutually exclusive. They are one and the same" (MSNBC, 2005). Scott provided an example by calculating that improving fuel mileage efficiency in the trucking fleet by one mile per gallon would save more than $52 million per year. The move toward sustainability also integrated Corporate Social Responsibility (CSR) into Wal-Mart's business model. Ideally, this CSR policy would function as a built-in self-regulating mechanism where Wal-Mart could monitor and ensure their adherence to laws, ethical standards, and international norms. This CSR policy would be a way for the company to embrace responsibility for the impact of their activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere.

The Next Level

Wal-Mart has attempted green initiatives before, but Scott's plan is different and has the potential for success based on many reasons. In the past, Wal-Mart dealt with environmental issues defensively rather than cooperatively, proactively, and as opportunities for profit. In 1989, in response to letters from customers about environmental concerns, the company launched a campaign to convince its suppliers to provide environmentally safe products in recyclable or biodegradable packaging. However, this large-scale effort was met with some skepticism from commentators who believed that it was intended to generate benefits for Wal-Mart at the expense of its suppliers. Nevertheless, the company did earn some goodwill among environmentalists as the first major retailer to speak out in favor of the environment. When vendors claimed they had made environmental improvements to products, Wal-Mart began promoting the products with green-colored shelf tags. It should be noted that although Wal-Mart promoted these products, the company did not actually measure or monitor the improvements. Regardless, the company sold as many as 300 products with green tags at one point. By the early 1990s, the green tag program disappeared altogether, and environmental issues slipped off of the Wal-Mart's list of strategic priorities.

The new sustainability strategy needs to be deeply embedded in Wal-Mart's operations and supply chain management to meet the ambitious goals set in 2005. In the words of Lee Scott, "We recognized early on that we had to look at the entire value chain. If we had focused on just our own operations, we would have limited ourselves to 10 percent of our effect on the environment and eliminated 90 percent of the opportunity that's out there" (Plamback, 2007). Wal-Mart's leadership must therefore evaluate the entire value chain as a means of implementing sustainability through distribution systems. Creating metrics for analysis is paramount to Wal-Mart's ability to monitor corporate operations and global suppliers to be able to support their real efforts for improvement with substantial data.

Ambitious Goals

In late 2005, Wal-Mart President and CEO Lee Scott gave his first presentation broadcast to over 1.5 million employees in over 6,000 stores and each of its suppliers. He laid out a detailed summary regarding Wal-Mart's new sustainability initiative to make a positive impact and greatly reduce the impact of Wal-Mart on the environment in order to become the "most competitive and innovative company in the world" (Plambeck, 2007). In his speech, Lee Scott laid out three very ambitious goals in which he vowed Wal-Mart would:

1. Be supplied 100 percent by renewable energy in the very near future

2. Create zero waste
3. Sell products that sustain Wal-Mart’s resources and the environment

Clearly, Wal-Mart is trying to differentiate itself in an area where it was once considered a laggard. Even some of the harshest Wal-Mart critics have started to agree that the company has begun to make good on its promises. Obviously, these goals can seem overly ambitious to most, but they should not seem inconceivable considering Wal-Mart’s past success with seemingly un-reachable goals.

The three goals were just an introduction to Mr. Scott’s speech. He also discussed the following goals:

1. Increase fuel efficiency in Wal-Mart’s truck fleet by 25 percent over three years and doubling it within 10 years
2. Reduce greenhouse gases by 20 percent in 7 years
3. Reduce energy use at stores by 30 percent in 7 years
4. Cut solid waste from U.S. stores and Sam’s Clubs by 25 percent in three years.
5. Buying diesel-electric and refrigerated trucks with a power unit that could keep cargo cold without the engine running, saving nearly $75 million in fuel costs and eliminating an estimated 400,000 tons of CO2 pollution in one year alone
6. Making a five-year verbal commitment to buy only organically grown cotton from farmers, and to buy alternate crops those farmers need to grow between cotton harvests. Last year, the company became the world's largest buyer of organic cotton
7. Promising by 2011 to only carry seafood certified wild by the Marine Stewardship Council, a group dedicated to preventing the depletion of ocean life from overfishing.
8. Buying (and selling) 12 weeks' worth of Restrictions on Hazardous Substances (RoHS)-compliant computers from Toshiba

Although this may seem like a very large list for a company to accomplish, each of these are attainable and place Wal-Mart in a great competitive position for the future.

Sustainable Value Networks

While Wal-Mart is building value added networks of government agencies, nonprofits, employees and suppliers to “green” its supply chains, the company is using a network approach to lower overall carbon and environmental footprint in order to increase profitability while increasing margins. For years Wal-Mart has been narrowly focused on operations and supply chains, growth, and profits. Recently, Wal-Mart reached out to external stakeholders to try and develop areas of maximum environmental impact and identify key networks which would help achieve these goals. In return for participating in these value-added networks, participants would receive information about as well as a say in Wal-Mart's operations. Tyler Elm, Wal-Mart's senior director of corporate strategy, and Andrew Ruben, Wal-Mart's vice president of corporate strategy and business sustainability, directed Wal-Mart's network leaders to, "derive economic benefits from improved environmental and social outcomes" (Elm, 2007). "It's not philanthropy," he adds. According to a Stanford Social Innovation Review, "By the end of the sustainability strategy's first year, the network teams had generated savings that were roughly equal to the profits generated by several Wal-Mart Supercenters" (Denend, 2008). Below is a list of Wal-Mart's sustainable value networks and how the company plans to accomplish each of the main three goals:

<table>
<tr><th colspan="4">Wal-Mart's Sustainable Value Networks</th></tr>
<tr><th colspan="4">Each of the 14 networks serves at least one of Wal-Mart's three environmental goals.</th></tr>
<tr><td>Goals</td><td>To be supplied by 100% renewable energy</td><td>To create zero waste</td><td>To sell products that sustain our resources and the environment</td></tr>
<tr><td>Networks</td><td>• Global Greenhouse Gas Strategy
• Alternative Fuels
• Global Logistics
• Energy, Design, Construction, & Maintenance</td><td>• Operations and Internal Procurement
• Packaging</td><td>• Chemical Intensive Products
• Seafood
• Electronics
• Food & Agriculture
• Forest & Paper
• Jewelry
• China
• Textiles</td></tr>
</table>

At the center of the business sustainability strategy pursued by Wal-Mart is a shift from generating additional value through price-based interactions, relationships with nonprofits, suppliers, and other stakeholders. Through the above networks, Wal-Mart is gaining a system perspective which helps retailers find ways to address environmental issues. In exchange for these suppliers addressing the issues, nonprofit network members gain huge leaps towards their overall missions because of the scale of the operations at Wal-Mart. Suppliers also enjoy not only the stability that more intimate relationships with Wal-Mart brings, but also the guidance and support from Wal-Mart's nonprofit partners.

The Wal-Mart sustainability strategy no doubt looks to be off to a promising start; they must not become complacent and must press-on carefully in order to make these networks sustainable and able to expand without interruption. The first thing they need to do is manage these partnerships carefully in order to keep costs down. They also need to be able to manage the balance between offering "green" and conventional "non-green" products in its stores. Finally, because of the very high number of nonprofits in the network, Wal-Mart must manage the loss of these partnerships. Individual groups may be unable to get credit for a large reduction on environmental impact. Over time, these groups' inability to be able to demonstrate their impact may cause some problems with their fundraising because donors will demand more and more data on their performance. These problems could eventually cause the nonprofit groups to withdrawal from the networks.

Counter-Arguments to Wal-Mart Going Green

While some stakeholders and management become increasingly confident about the new sustainability initiatives, history dictates that there is reason to worry. Many critics argue that Wal-Mart's green initiative is simply unsustainable. As with many companies attempting to make their business strategy more "green", upfront costs become unavoidable and are simply not worth the investment. Wal-Mart will need to spend in upwards of $500 million per year in order to achieve the goals mentioned earlier in the study. The promise of potential savings down the road does not resonate with consumers, or smaller Wal-Mart suppliers, the same way it does with big corporations. However, it is important to note that Lee Scott stated in 2007, "Tangible profits generated by Wal-Mart's sustainability strategy in the first year of implementation were roughly equivalent to the profits from several Wal-Mart SuperCenters." Intangible benefits, such as public goodwill and improved assurance of supply, are worth much more to the retailer than the profits generated the first year of implementation.

As Wal-Mart attempts to scale up networks and improve upon "green" initiatives, the company faces three possible obstacles:

1. Increased Costs
2. A Sub-Optimal Product Assortment
3. Criticism of Factory Labor Conditions.

Wal-Mart must take these challenges seriously because public reputation is on the line as it makes more and more promises to the public. With increased dependence on a limited number of selected suppliers, Wal-Mart also may face rising prices from the narrow supply base, especially in times of limited resources. Also, with fewer suppliers Wal-Mart may miss opportunities to create innovative products that customers may want but are not necessarily environmentally friendly. Wal-Mart must continue to innovate while managing incremental "green" changes to their supply chain management. Each of the nonprofit partners will continue to push Wal-Mart in choosing product assortment lines.

Conclusion

According to the 2009 Wal-Mart Sustainability Report, Lee Scott was quoted as saying, "The facet is sustainability at Wal-Mart isn't a stand-alone issue that's separate from or unrelated to our business. It's not an abstract or philanthropic program. We don't even see it as corporate social responsibility. Sustainability is built into our business. It's completely aligned with our model, our mission and our culture." In this case study we have outlined the requirements needed to become a sustainable business, the reason why this initiative is different than others previously attempted by Wal-Mart, goals presented by management, the new value networks, and risks Wal-Mart needs to address. They have already taken major steps including a "green" website where they give tips on how customers can go green and what they can do to reduce their environmental impact. Wal-Mart critics argue that the steady dose of these initiatives is an effort to deflect attention from its work-place policies and its financial performance. They need to continue to invest in its environmental policies as well as address the issues facing their workforce in order to prove these initiatives are not just a public relations stunt. However, if Wal-Mart proves that it is serious about reducing environmental impact and devoted to investing in green initiatives, critics will have to unclench their fists for a round of applause. At least for a moment.

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