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Megatrends in the retail & consumer products industry

Building value by addressing the impact of climate change

Highlights

- Initiatives to address global warming and changing weather patterns can help retail and consumer companies lower costs and operational risks.
- Businesses are embracing clean power and energy-efficient equipment to reduce their carbon footprint—and meet the demands of investors and customers.
- Initiatives to halt deforestation and conserve water are increasingly important to a company's operating costs and reputation in local markets.
- Businesses are building community resilience and redesigning how products are made and used to achieve real sustainability.
- Meaningful change will require that companies establish long-term relationships with their suppliers and invest in how they operate.

How businesses are reacting to changes in climate and weather

As the Earth grows warmer, shifts in climate and weather are inevitable. We have already seen more severe winter weather, longer droughts, hotter heat waves, and torrential flooding.

Many scientists believe greenhouse gas emissions are the primary cause of global warming and changing weather patterns, and that current efforts to reduce these gases are largely insufficient. In fact, the global economy has not met the decarbonization goals needed to limit global warming to the two degrees Celsius threshold in any of the past six years.[1] To achieve that objective, carbon emissions must be decreased by 6.2% every year until 2100—a formidable challenge given that the global decarbonization rate was just 1.2% in 2013. And even if decarbonization goals are met, there is no guarantee that the trajectory of global warming will be changed.

The financial costs of climate change and severe weather are considerable and will continue to mount. In 2013, major weather events resulted in $120 billion in global monetary losses.[2] Future impacts of climate change include an estimated 70% drop in annual crop yields in some parts of the US and projected property losses of up to $106 billion by 2050 as rising sea levels consume coastal properties, according to a recent report by The Risky Business Project.[3]

In the short term, sustainability initiatives present numerous opportunities for retail and consumer companies to cut costs, protect reputations and differentiate brands. Beyond that, businesses will need to become leaner and smarter to prepare for the new normal of climate change. They must carefully consider physical risks to their operations and supply chains and take into account increasing demands from stakeholders and consumers.

Achieving meaningful results will demand that companies make a long-term investment in sustainability, renewable energies and supply chains. Not only will this help to build real resilience and stability, but it will also help to boost financial performance for the future.

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[1] PwC, *Two degrees of separation: Ambition and reality*, September 2014
[2] Audit & Risk, *Top ten risks facing organisations in 2015*, January 29, 2015
[3] The Risky Business Project, *Risky Business: The Economic Risks of Climate Change in the US*, June 2014

Curbing carbon gases through clean energy and efficiencies

Retail and consumer goods companies continue to take steps to reduce their carbon footprint, conserve natural resources and improve energy efficiency. Because they understand that global warming will very likely increase, many are increasingly focused on adapting to and addressing the impacts of climate change.

Saving the planet, however, is not necessarily their motivation. Reducing carbon and conserving energy can have business benefits like lower costs and operational risks. Many companies have also embraced sustainability in response to pressure from activists and regulators and because of a desire to burnish their corporate reputations. They also want to meet the demands of consumers who increasingly prefer sustainable goods and manufacturing practices.

How a company manages its climate change strategy is also significant to a growing group of investors. More than a third of institutional investors consider a company's performance on social responsibility and environmental issues as "essential" to their decision making, according to the Sustainability Accounting Standards Board (SASB).[4] And, they do this with good reason. A recent study by the Harvard Business School found a clear correlation between a company's material sustainability efforts and financial performance.[5]

Investing in renewable energies

Some large companies have invested in renewable energies like wind and solar power to lessen their carbon footprint, curb operational costs and hedge against the volatility of fossil fuel prices.

Kohl's is a company that is in the vanguard of clean power. Across 13 states, the retailer has installed 161 solar locations that generate 50 megawatts of power annually, with each location generating enough power to offset up to 50% of the store's energy use.[6] Similarly, IKEA has installed more than 700,000 solar panels globally and owns approximately 157 wind turbines in Europe and Canada.[7]

Other companies are leveraging in-store opportunities to lower their monthly electricity bills. Many are switching to LED lighting, which consumes up to 40% less electricity than fluorescent bulbs, and others are installing energy-efficient next-generation refrigerators.

The payoffs can be considerable. IKEA says its investments in energy efficiency have yielded more than $70 million in cost savings since 2010.[8] IKEA's leaders make it clear that investments in efficiency and renewables are good for business because they make the company more resilient and help shield it from future increases in energy prices.

Energy-efficient transportation

Transportation is a significant expenditure for retail and consumer goods companies, and energy-efficient equipment presents an opportunity for businesses to trim operating costs and reduce their carbon footprint.

> ***Reducing carbon emissions and conserving energy can have direct business benefits, including reductions in costs and operational risks.***

Increasingly, businesses are driving down energy costs with fleets of efficient vehicles powered by electricity and compressed natural gas, which emit considerably less greenhouse gases than oil. PepsiCo's Frito-Lay North America division has deployed more than 250 all-electric delivery trucks, which emit 75% less greenhouse gases than diesel.[9] It should be noted, however, that an increase in use of compressed natural gas for transportation and manufacturing could result in price volatility. That's a risk that manufacturers, in particular, should carefully consider.

UPS, a company whose business hinges upon transportation, is deploying routing-optimization software that it says will eliminate 100 million delivery miles driven per year when fully implemented in 2016. UPS estimates this will result in a 100,000 metric ton reduction in carbon-dioxide emissions—the equivalent of taking more than 21,000 passenger vehicles off the road for a year—and save $300 million annually in fuel costs.[10]

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[4] Sustainability Accounting Standards Board, *Investor Data, Policy Insights*, October 22, 2014
[5] Harvard Business Review, *Corporate Sustainability: First Evidence on Materiality*, 2015
[6] Kohl's Department Stores, *Kohl's Department Stores Recognized With 2014 EPA Sustained Excellence in Green Power Award*, November 19, 2014
[7] IKEA, *Swedish retailer IKEA to install Missouri's largest rooftop solar array on future St. Louis store opening Fall 2015*, January 14, 2015
[8] IKEA, *IKEA: Building a better business through intelligent energy usage*, February 5, 2015
[9] Frito-Lay North America, *New York Charges Forward: Frito-Lay Increases Fleet of All-Electric Delivery Trucks and Rolls Out Enhanced Charging Stations in the State*, September 13, 2013
[10] UPS, *UPS Accelerates Use of Routing Optimization Software to Reduce 100 Million Miles Driven*, March 2, 2015

Taking a stand on deforestation and water scarcity

For most businesses, the bulk of carbon emissions occur upstream in supply chains, often in geographies that are very distant from corporate facilities. There is perhaps no better example than the role of deforestation in the footprint of companies in the fiber and food sectors.

According to current UN estimates, approximately 32 million acres of forests are lost each year, which contributes up to 20% of annual global greenhouse gas emissions.[8] Clearing of land for agriculture is a primary driver of deforestation and is particularly acute among companies that use palm oil, soy, biofuels, timber and beef.

Some consumer goods companies have found that mitigating the impact of deforestation can pay off in both cost benefits and sustainability. Kimberly-Clark, for instance, plans to transition half of the wood fiber it uses from natural forests to alternative fiber sources by 2025.[9] Not only will this help preserve the world's forests, but it will also create business advantages by reducing cost volatility, making the supply chain more resilient and diversified and providing more flexible fibers for the company's paper-based products.

Similarly, Cargill has been recognized for its efforts in mapping and reducing the local impact of its palm oil and soy supply chains as well as its other sustainability initiatives.[10] The global food company has partnered with nongovernmental organizations (NGOs) and governments in North and South America, Europe and Asia to make supply chains more sustainable, reduce deforestation and increase crop yields of local farmers.

Impact of climate change on water

Water scarcity has long been a top environmental concern. It's now a critical issue for businesses and society as climate change continues to increase water scarcity and negatively impact the production of crops and raw materials.

In the US, climate change has resulted in extreme heat and shifting precipitation patterns that have left states like California and Texas in deep drought while causing a rise in precipitation in the Northeast. Also adding to water stress is the depletion of aquifers used in agricultural irrigation.

And it could get worse. A study by the Potsdam Institute for Climate Impact Research forecasts that global warming of two degrees Celsius would put 40% more people around the world at risk of "absolute water scarcity."[11]

It's a threat that most people around the world understand. Many are holding companies accountable for their use of local water resources and demanding that manufacturers commit to sustainable water policies in their communities.

At the same time, businesses have felt the sting of increased water costs due to droughts caused by global warming and increased demand as populations multiply. Many now understand that water conservation is not only critical to gaining the trust of local populations, but that it can also help curb energy use and curtail costs. This is particularly true of the use of heated water.

Increasingly, companies realize that initiatives to halt deforestation and conserve water can curb energy use, cut costs, and foster trust in local populations.

Consumer goods companies are taking action to conserve water. Procter & Gamble, for instance, reduced water use at its manufacturing plants by more than 58% per unit of production between 2002 and 2012.[12] The company is expanding its commitments to reduce water used in facilities located in water-stressed regions and has set a goal to provide one billion people with access to water-efficient products by 2020.

Conservation is particularly essential to beverage manufacturers since water is the primary ingredient of their core products. That's why The Coca-Cola Company and its bottlers have invested almost $2 billion in water conservation since 2003. And to achieve its goal of becoming water neutral by 2020, Coca-Cola has launched hundreds of initiatives and partnerships to improve water efficiency and protect local watershed globally.[13]

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[8] UN, *Climate Summit 2014: Action Area: Forests*, accessed May 7, 2015
[9] Kimberly-Clark, *Kimberly-Clark Announces Ambitious Sustainable Development Goal for Forest Use*, June 18, 2012
[10] Cargill, *CDP names Cargill sector leader in tackling deforestation*, accessed May 7, 2015
[11] Proceedings of the National Academy of Sciences, *Multimodel assessment of water scarcity under climate change*, accessed May 7, 2015
[12] Procter & Gamble, *P&G Expands Sustainability Goals to Conserve Resources, Protect Environment*, October 13, 2014
[13] Coca-Cola, *Water Stewardship and Replenish Report*, accessed February 14, 2015

Building community resilience and shaping consumer behavior

While climate change presents steep challenges for retail and consumer companies, it also offers significant opportunities. Helping communities prepare for and mitigate the impact of severe weather can go a long way toward protecting a company's local reputation and even boosting sales by offering the right products at the right time.

To that end, some retailers have created storm command centers to ensure continuity of operations during severe storms. Walmart, for instance, has an Emergency Operations Center at its Bentonville, AK, headquarters as well as disaster-distribution centers in high-risk areas that are positioned to provide rapid response in the wake of climate events.[14] The retailer has strategically identified potential weather-related risks and has implemented business continuity plans for each store function. This builds resilience and helps the stores provide needed goods after natural disasters.

Forward-thinking companies are also planning beyond the store walls to reduce the impact of severe weather on employees and local communities. Many encourage consumers and employees to check in on vulnerable populations that may need help in severe weather, and some even have processes to provide employees with gas and transportation to get to work in wild weather.

This type of community resilience is a central tenet of the R!SE initiative, an alliance run by the UN.[15] R!SE promotes risk-based investments in disaster reduction as well as public-private collaboration. Participants understand that a company is only as resilient as its local community and that managing disaster risks is good for the business and ultimately the global economy.

Making changes in the value chain

While companies often begin their sustainability efforts by focusing on power efficiencies and renewable energies, real environmental leaders are addressing the carbon impact of their upstream supply chains and the use and care of their products by consumers.

Over the past decade, companies have moved product manufacturing to developing nations to take advantage of lower production costs. Many of these nations, however, use high-carbon energy like coal. In effect, businesses have relocated—and even increased—global greenhouse gas emissions.

Some businesses have launched initiatives to redress the relocation of carbon emissions by helping developing nations use renewable energy to strengthen the sustainability of supply chains and reduce energy costs. Walmart, for example, is working to improve the energy efficiency of its China-based supply chains.[16] The company helps Chinese manufacturers identify and implement energy-efficient projects specific to each facility. Walmart predicts the program will yield "significant potential savings" in energy costs among participating suppliers. At PwC, we believe that helping supply chain partners in developing nations improve resilience, reliability and flexibility is a long-term strategy that can yield significant sustainability and profitability results.

Another opportunity for change lies in redesigning both how products are made and how customers use them. Levi Strauss & Co. provides a great example. The company has developed a manufacturing process that it says reduces the amount of water used in garment finishing by up to 96% and has conserved one billion liters of water since 2011.[17] Recognizing that laundering accounts for 23% of the water—and much of the energy—used in the lifecycle of jeans, the company also encourages customers to adopt care methods that use less energy and water, including washing jeans less often and in cold water and hanging them up to dry.

The long view on sustainability

Ultimately, retail and consumer companies will need to challenge the short-term quarterly profit mentality and balance immediate capital needs with investing in the building of value over years rather than months.

Improving supply chain sustainability will require that businesses establish long-term relationships with their suppliers and invest in how they operate. Only then will suppliers be able to deliver on the environmental and social issues that consumers expect at no extra cost.

We believe that meaningful breakthroughs can be achieved by adding sustainability performance as a factor that determines compensation. A shift of this magnitude will require courage and clarity about what matters most for the long-term success of the business, society and the environment. Companies that take action now will be better positioned to protect and create business value as climate change continues to have an impact on both environmental ecosystems and business environments.

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[14] PwC, *Interview with Mark Cooper:* Walmart takes collaborative approach to disaster recovery, accessed May 7, 2015

[15] R!SE, *Program summary*, accessed May 7, 2015

[16] Wal-mart Stores, Inc., *Walmart Continues to Strengthen Global Supply Chain Sustainability; Announces New Commitment to Advance Factory Energy Efficiency in China*, August 27, 2014

[17] Levi Strauss & Co., *Levi Strauss & Co. Reaches 1 Billion Liters of Water Saved Through Sustainability Initiatives*, March 17, 2015

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