



## Sustainable Retailing

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### Abstract

As consumers seek products that cause minimal environmental harm and bring about positive social impact, and as awareness of supply chain impact grows, retailers must embrace sustainability. Given their unique position in the supply chain between upstream suppliers and downstream consumers, retailers are key to a circular economy in which products at the initial end-of-life stage are returned to the supply chain for continued use. By serving as a connection between suppliers and consumers, retail initiatives can help to reduce, reuse, and recycle. Furthermore, retailers can leverage their unique position in the supply chain to enable and legitimize a focus on social issues across the supply chain. We discuss such actions, the challenges that need to be overcome to have scalable impact, and the mechanisms retailers can utilize to make such progress.

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Sustainability has emerged as one of the most critical issues facing retailers (Erez 2019; Widlitz 2020). Retailers' sustainability initiatives reduce the negative impact of products on both people and the environment throughout the supply chain, which continues to be a top consumer demand. Retail Industry Leaders Association reports that 93% of global consumers expect brands to support social and environmental issues. According to a recent study of 19,000 consumers in 28 countries (Widlitz 2020), nearly

60% are willing to change their shopping habits to reduce environmental impact, with 80% saying sustainability is important to them. In a survey of 120 outdoor retailers from thirteen countries, 94% claimed that consumer demand for sustainable products has increased in the last two years (Suston-EOG Survey 2019). From 2013 to 2018, 50% of CPG growth came from sustainability marketed products (Whelan and Kronthal-Sacco 2019). In a Mintel survey in 2020, 59% of consumers said treating employees fairly is the best way for a company to show they represent consumers' personal values.

In addition to providing environmentally sustainable materials and packaging, consumers want to buy from companies that take the long-term view, focusing on both the environmental and social impact of their supply chain activities (Erez 2019). More and more retailers are paying heed. For example, Ikea has pledged to use only renewable and recyclable materials and reduce its footprint by 70% per product, and Levi's is leading the fashion industry by reducing chemical and water use during production (Widlitz 2020). Walmart is eliminating empty miles

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through backhaul and has initiated Project Gigaton to eliminate one billion metric tons (a gigaton) of greenhouse gases from the global supply chain by 2030. Patagonia implements a “4-fold” process ensuring that its suppliers meet sourcing, quality, social, and environmental standards predetermined by Patagonia.<sup>2</sup> CVS is partnering with the Aetna Foundation to address social factors that impact people’s health, and operates Project Health to offer free screenings in underserved communities (Cheney 2020). Starbucks supports coffee farmers with their Coffee and Farmer Equity (C.A.F.E.) practices as well as through coffee research centers to address agricultural challenges faced by coffee farmers (Splitter 2019).

For retailers, sustainability is a competitive imperative that goes beyond simply portraying themselves as good corporate citizens (Mueller 2018). First, sustainability can help differentiate the brand from its competitors, improve brand equity, build customer loyalty, and attract younger consumers (Erez 2019). A study by Nielsen Insights (2015) suggests that both Millennial and Generation Z consumers are willing to pay more for products and services that are committed to social and environmental causes. Second, there are increased regulations on environmental and other sustainability related practices. Retailers mitigate business risk through increased regulatory compliance and reduce liability by strengthening the sustainability of their supply chain (Mueller 2018). Third, sustainability practices aid retailers in attracting capital by meeting requirements from institutional investors with specific ESG requirements (Kang, Germann, and Grewal 2016). Fourth, sustainability helps businesses expand margins by cutting fixed and variable costs through waste reduction, energy savings, lower packaging and transportation costs, lower inventory and warehousing costs, reduce employee turnover, and mitigate healthcare costs. Among retailers, 51% state cost savings as their main objective for adopting sustainability goals (Mueller 2018). Retailers are also motivated by the positive impact of sustainability on legitimizing the company (Hofenk et al. 2019) and attracting and engaging employees (Whelan and Fink 2016). There is an increased emphasis on integrating sustainability related values in retail supply chains, which can increase their attractiveness to consumers (Rakowski 2018). Yet, challenges in implementing sustainability as a holistic system incorporating suppliers and customers persist.

### Sustainability: Concept, Definition, and Application in Retailing

Winterich (2019) defines sustainability as a set of ideas, attitudes, intentions, and behaviors that involve the strategic consideration of economic, environmental, and social resources for the success of current and future generations. Stated differently, a sustainability oriented retailer, while considering the long run, goes beyond just economics to include environmental and social considerations for current and future generations. Sustainability for businesses is often referred to as the triple bot-

tom line (TBL or 3BL) or the 3P’s, which refer to a company’s consideration of economic performance [profit] as well as environmental impact [planet] and social impact [people] (Elkington 1998). Sustainability goes beyond environmental stewardship to also embrace the “people” component. Sustainability attends to the working condition and well-being of employees, the impact of sourcing decisions on inequalities in society, and opportunities for underrepresented segments of society. Sustainability initiatives for increasing living wages, providing safe working conditions, and ensuring fair treatment apply not only to the retailer’s direct employee pool but also to indirect employees, who work for partners within the retailer’s supply chain. Considerations of stakeholders such as local communities and society at large reflect the broadening definition of sustainability.

Conceptually, sustainability goes beyond corporate responsibility initiatives or philanthropic activities that some retailers have promoted for decades. Early corporate social responsibility initiatives that focused on social issues were primarily grounded in ethics and moral philosophy. Sustainability initiatives that arose later focused on environmental issues grounded in physical science (Bansal and Song 2017). Over time, these initiatives have merged and expanded to also include social welfare issues under the umbrella of sustainability. Today, the concept of sustainability embodies environmental, ethical/moral, and social issues. In terms of definition and scope, we view sustainability as going beyond CSR initiatives alone. We also intend to circumscribe the unique and central position of retailers—among manufacturers, wholesalers, customers, and consumers—that can be leveraged to provide long-term benefits for the environment and society at large as well as retailers’ financial performance.

Financial performance goals such as sales growth and shareholder value have historically been the primary focus of retailers. Increasingly, retailers are integrating sustainability goals with profit and sales growth goals. Rather than competing goals, retailers aim to tackle them as complementary goals whereby achieving sustainability also enhances profits and growth.

Economic benefits aside, retailers are beginning to consider operating costs by limiting the use of natural resources and minimizing harm to the ecosystem by reducing emissions. For example, grocery retailers are responsible for approximately ten percent of U.S. food waste (43 billion pounds annually) with even more food waste in the supply chain (Weigel 2020). Responding to this challenge, large food retailers, including Walmart, are deploying technology to reduce food waste throughout the supply chain, saving money and environmental resources (Kleinman, Schneider, and Strumwasser 2018; Kor, Prabhu, and Esposito 2017). Although it was not always easy to calculate, the impact of sustainability initiatives on critical outcomes can now be ascertained using new measurement techniques and technologies embedded in retail supply chains. For example, retailers in the apparel industry can use the Higg Index to measure and score a product’s sustainability performance at every stage (Radhakrishnan 2015).

In terms of human impact, sustainability recognizes that retail supply chains do not exist in a vacuum; they impact, and are impacted by, their employees, suppliers, and the communities in which retailers operate. For example, Walmart has invested

<sup>2</sup> Patagonia’s statement available at: <https://www.patagonia.com/our-footprint/working-with-factories.html> (last accessed on July 18, 2020).

Table 1  
 Ikea's sustainability assessment.

Planet	Aerator in every bathroom and kitchen faucet reduces water flow while maintaining pressure; 100% of cotton is from sustainable sources; buying back furniture for resale or recycling.
People	Provided rug weavers with regular work in a safe environment with legal, regulated wages and benefits. Started training schools where trainees are paid while learning.
Profit	Ikea saw 29% increase in sales of products that contributed to a more sustainable life at home for consumers. All lighting is LED, cutting energy costs.
System-wide Integration	Integrated business functions by working with suppliers for sustainable raw materials and changing consumer behaviors through reuse; circular business commitment by 2030 through advocacy and partnerships.
Future Focus	Waste reduction for future health of planet and society; all plastic in products will be renewable or recycled by 2030.

\$100 million in training programs to help employees advance their retail careers as well as for training one million farmers who are directly and indirectly part of its supply chain (Macri 2018). When low coffee prices threatened coffee farmers, Starbucks committed \$20 million in relief funds to provide them with income stability (Almeida 2019). While social issues may be more difficult to quantify, the advantage of addressing social issues in the supply chain is that it can simultaneously boost firm performance and enhance legitimacy (Carter and Jennings 2002; Yawar and Seuring 2017). For example, in the U.K., B Corps, which are a network of purpose-driven companies using business as a force for good, were found to have an average year-on-year growth rate of fourteen percent, 28 times greater than the national economic growth rate of 0.5% (Sustainable Brands 2018). Thus, it is not surprising that companies are increasingly seeking to address social issues in their supply chain and expand from a for-profit business model to a for-profit model with social purpose (Lee, Bolton, and Winterich 2017). The B Corp Beautycounter offers “clean” beauty products that eschew ingredients that are legal yet questionable. Its employees and customers are also instrumental in lobbying for clean beauty regulations. In 2018, Beautycounter’s annual revenue grew by 33% (Raphael 2019).

In terms of time frame, retail supply chain sustainability not only focuses on the present and near future, but the long term. Specifically, sustainability considers how current operations will impact future generations, as stated in the 1987 Bruntland Report (World Commission on Environment and Development 1987). At the same time, it promotes a shift from short-term quarterly results to a long-term focus on both financial and ESG performance recognized by investors (Eccles and Klimenko 2019).

In summary, sustainability in the supply chain requires retailers to deploy system-wide integration in the entire supply chain to minimize harm to the environment and individuals, and to benefit the environment and society over time. Going beyond placing recycling bins in retail stores, sustainability includes a full consideration of the environmental and social impact of doing business, from acquisition of raw materials to product disposal, reuse, or recycling; from safety and well-being of employees to safety and well-being of society at large. Fig. 1 provides a framework for assessing retailing sustainability (adapted from Winterich 2019). A notable feature of Fig. 1 is to assess the joint emphasis on the economic (profit), social (people), and environmental (planet) impact of supply chain activities with an eye toward their long-term future impact. To be sure, relatively

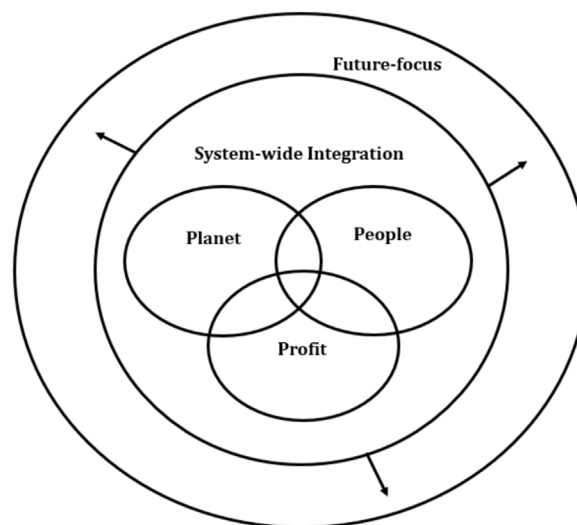


Fig. 1. A framework for conceptualizing and assessing sustainability (Winterich 2019).

few companies have implemented and achieved the desirable holistic and system-wide integration in their supply chain and business models (Mosher and Smith 2015). Table 1 depicts an application of the framework to Ikea. Ikea sustainability efforts have three foci—profit, people, and the planet. Notably, many investments by Ikea will yield returns in the long run and have a future focus.

### Retailing and Sustainable Supply Chain Management

Sustainable supply chain management or SSCM is defined as “the management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development, i.e., economic, environmental, and social, into account which are derived from customer and stakeholder requirements” (Seuring and Müller 2008, p. 1700). SSCM aims to maximize supply chain productivity and social welfare while minimizing environmental impact. Initially, sustainable supply chain management focused on reducing environmental impact; in recent years, there has been an increasing emphasis on the social impact of SSCM.

SSCM has attracted tremendous attention from academics and practitioners in recent years (e.g., Linton, Klassen, and Jayaraman 2007; Wilhelm et al. 2016). Emerging evidence sug-

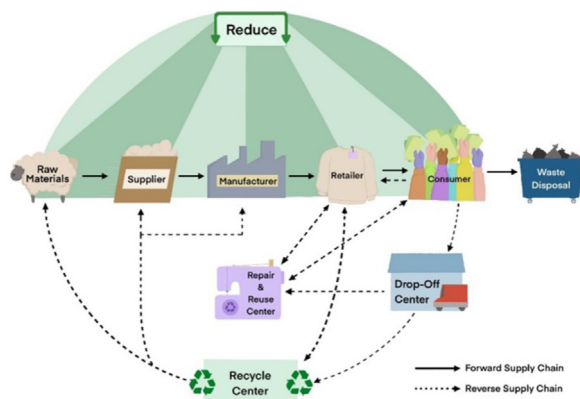


Fig. 2. Closed-loop sustainable retail supply chain (the circular economy).

gests that SSCM helps organizations achieve better financial and nonfinancial performance (e.g., Tsoufas and Pappis 2006; Vachon and Klassen 2008). Yet, despite its popularity, SSCM is poorly understood in the retail sector.

SSCM is closely associated with the concept of circular economy (Abbey and Guide 2018; Bernon, Tjahjono, and Ripanti 2018; Govindan and Hasanagic 2018); an idea rooted in the ancient concept of “circle of life” which recognizes that when something perishes, it gives rise to something new (Toupin 2019). Applied to a supply chain, the concept of circular economy contrasts the traditional, unidirectional flow of material and products from a consumer to the end consumer (also called forward supply chain) to a bidirectional flow of material and products amongst members of the supply chain. Specifically, a circular economy emphasizes “closing the loop” by incorporating a reverse supply chain along with the traditional forward supply chain, where the reverse supply chain enables the reverse flow of materials among channel members in such a way that materials are reused or recycled wherever possible (Carter and Ellram 1998). Reverse supply chains augment forward supply chains by ensuring that the product itself is easy to recycle or reuse and made with minimal new materials. For example, an outcome of Coca-Cola’s efforts to build a reverse supply chain is the increased use of recycled products in the manufacture of Coke bottles and cans. A closed-loop supply chain can help a company achieve sustainability goals more easily (Abbey and Guide 2018; Amin and Zhang 2012; French and LaForge 2006; Souza 2013).

Fig. 2 envisions a circular economy for the clothing industry. The solid lines in Fig. 2 represent the forward supply chain. Ensuring that the clothing industry’s forward supply chain aligns with the principles of the circular economy requires members of the supply chain to focus on reducing reliance on non-renewable inputs and new raw material as well as reducing pollution and waste. The reverse supply chain of the clothing industry, represented by the dotted lines in Fig. 2, aspires to make the supply chain regenerative, ensuring that clothing material does not end up in waste. To do so, companies are innovating ways to reuse clothing via rental and secondary markets as well as through repair services. For example, H&M recently introduced a recycling machine in one of their Stockholm stores that converts old

garments that a customer brings in (e.g., a sweater), into something new (e.g., a hat) while the customer watches (H&M 2020). The reverse supply chain in the clothing industry also entails developing chemical processes to turn used polyester and other clothing material back into raw materials so that there is zero reliance on natural resources. Such bidirectional or closed-loop supply chains focus on preventing natural resource depletion and environmental degradation through product recovery, reuse, and recycling, while at the same time addressing social issues such as societal inequities along the forward and the reverse supply chain.

Dell Inc., the computer manufacturer, provides a good example of a closed-loop supply chain. Historically, Dell did not focus on a sustainable supply chain and consumers of its products discarded them, with many ending up in landfills. Today, Dell designs its PCs and components to be easily reused and upgraded. Moreover, they can be easily disassembled and recycled at the end of their life. Additionally, the company has set goals to use 50 million pounds of recycled-content plastic and other sustainable materials in its products by the end of 2020 and to recover two billion pounds of used electronics in the same period (Hardcastle 2017).

Although bidirectional flow of material makes a supply chain more circular, it is not just material flow that matters. Information flow is equally, or even more, important in creating and providing opportunities for sustainable practices and helping channel members coordinate. Besides environmental benefits, enabling a circular economy and this bidirectional flow of material and information can also provide opportunities to advance global social justice by addressing societal and wage inequity. It can also aid and accelerate human development by improving human health in societies facing pollution and environmental degradation, and by providing better health and safety conditions for labor forces across the globe.

### Achieving the Circular Economy Through Reduce, Reuse, and Recycle

Achieving a circular economy encompasses three principles or the three R’s: Reduce, Reuse, Recycle (U.S. Environmental Protection Agency 2020).

*Reduce* focuses on reducing inputs such as resources, energy, and material during the manufacturing phase, along with reduced emissions and waste in the forward supply chain. This includes the application of new technologies and processes to reduce the negative impact of production and consumption on the environment, humans, and society while keeping an eye on financial returns. Companies may also redesign products to reduce the packaging necessary to protect them when shipped. For example, Tide and Seventh Generation have introduced redesigned laundry detergents that are several pounds lighter by cutting down on plastic in the packaging and making the detergent more concentrated (Pisani 2018). Similarly, Modelez committed to eliminating 65,000 metric tons of packaging (Chief Packaging Officer 2019).

*Reuse* refers to the reuse of the entire product or its components, after its first life cycle, that is, initial utilization by



the original consumer. Reuse can take the form of remanufacturing the product into new products or repairing the products for extending their lives. Consider the fashion industry. Global consumption of apparel hovers around 80 billion items, but, on average, each clothing item is worn between three to seven times based on the country studied (Thomas 2019). Yet, in a single year, fashion contributes nine trillion liters of water usage, 3.3 billion tons of CO<sub>2</sub> emissions, and uses 1,074 billion kWh of electricity (Gwozdz, Nielsen, and Müller 2017). Rent the Runway, an e-commerce retailer, rents out fashion clothing, and leverages the principles of reduce and reuse to lower total production and consumption of apparel by facilitating reuse.

*Recycle* involves converting and transforming materials that would otherwise be considered waste into new materials or products that can be used. Retailers can encourage recycling by providing a convenient place for consumers to return goods at the end of the initial life cycle, and even incentivize them to do so. Adidas' Futurecraft Loop shoe is the first performance running shoe designed for a circular life cycle. Adidas takes back these worn shoes to make new shoes. Apparel retailer North Face offers a discount on purchases when customers bring in worn clothing to be recycled. By telling customers that the materials collected for recycling will be transformed into new products, retailers can increase their recycling behavior (Winterich, Nenkov, and Gonzales 2019).

Achieving a circular economy through the 3R's involves both upstream suppliers and downstream consumers, and retailers can play a pivotal role in facilitating, propagating, and enforcing the 3R's in the retail supply chain. Retailers can enhance their suppliers' sustainability efforts by helping them reduce the amount of raw material and natural resources (e.g., wood, water, energy) used in manufacturing the products they sell. For example, retailers can encourage their suppliers to use reusable packaging or returnable transport items as replacements for cardboard shipping or pallets. Using this type of packaging may encourage buyers to send the material back to manufacturers (e.g., Glock and Kim 2015). Retailers can also encourage their suppliers to reuse waste, used products, and scrap material to manufacture the product (Lapkin, Joyce, and Crittenden 2004), ultimately reducing the amount of material that ends up in landfills. A critical aspect of this is providing infrastructure, information, and training to suppliers who often lack these means to implement sustainability initiatives. This is particularly true of small, native, and indigenous suppliers in developing or underdeveloped geographies.

A major challenge facing upstream suppliers in implementing a circular economy is creating a process for acquiring already-used products to return to the reverse supply chain loop (Abbey and Guide 2018). On this front, retailers can motivate, enable, and facilitate consumers to reduce, reuse, and recycle and therefore facilitate the adoption of the circular economy in multiple ways. First, retailers hear consumers' demands for products that meet environmental and social sustainability goals and alter shelf-space allocation for companies that meet these demands. Second, retailers enable consumers to reduce waste by encouraging them to purchase less aesthetically pleasing products (Grewal et al. 2019; Koo, Oh, and Patrick 2019) or products

that have less packaging. Third, the success of the circular economy hinges on consumers returning used products via various product acquisition management programs (Amin and Zhang 2012; Guide and Van Wassenhove 2001). Retailers can increase consumer convenience through simple efforts such as clearly labelled recycling bins at each store location. Fourth, consumers need to be open to reused and remanufactured products. Retailers can promote reused and remanufactured options to increase their attractiveness, thereby addressing this concern. Last, retailers are the face of the product for many consumers and are best suited to meet consumer demand for social initiatives through better treatment of employees and charitable initiatives.

Retailers can use the basic strategic levers of product, place, promotion, and price as well as packaging to ensure that consumers and suppliers adopt sustainability goals. For example, retailers can encourage renting products instead of owning them while at the same time encouraging suppliers to manufacture more durable products. Retailers can use price promotions to incentivize consumers to recycle and suppliers to adopt more recycled products as part of their product line. Similarly, retailers can use advertising to enhance perceptions about sustainable products and simultaneously communicate to suppliers about the need to focus on such products. Table 2 describes the many ways in which retailers can facilitate the circular economy by using these strategic marketing levers to ensure that suppliers and consumers are focused on the 3R's and social impact. Specifically, the columns in Table 2 describe the goals of a retailing SSCM (reduce, reuse, recycle, and social) and how they can be achieved through consumers (downstream) and suppliers (upstream). The rows show the 5P's that serve as action levers consistent with the basic marketing framework. We specifically separate out product and packaging. Our view is that packaging involves an entirely separate set of activities, processes, and initiatives with respect to sustainability management in supply chains.

### Retailers' Role in Facilitating the Circular Economy

Retailers are well positioned to take the lead in driving sustainability via the circular economy concept for several reasons. Retailers represent the central and critical linkage between the upstream and downstream actors in a supply chain (Grewal and Levy 2007). They can lead and support the supply chain linking raw material producers, manufacturers, wholesalers, transporters, warehouse, and other elements of the supply chain involved in serving customers (Ellram, La Londe, and Weber 1999). The upstream actors include natural resources and resource producers, suppliers (manufacturers, wholesalers, transportation vendors, among others), technology partners, NGOs, and other constituents that interact with retailers prior to customer purchase of a product. The downstream actors include customers who purchase the product from a retailer, retailer employees interfacing with customers, consumers who consume the products, the households and communities where consumption occurs, and potential stakeholders who influence and are influenced by the consumption process. Examples of these stakeholders include, but are not limited to, local organizations that facilitate recycling efforts, providers who help consumers with

Table 2  
A framework for achieving sustainable supply chain management in retailing.

	Reduce		Reuse		Recycle		Social Outcomes	
	Consumer	Supplier	Consumer	Supplier	Consumer	Supplier	Consumer	Supplier
Product	Reduce ownership through rental	Design products for high use or with less raw material	Increase duration of product use via repairs	Partner to offer repair services	Offer durable products from recycled material	Use recycled materials in products	Ingredients are less harmful to consumers	Production minimizes toxins to laborers
Package	Offer reduced or no packaging	Innovate product design to eliminate packaging	Packaging is refillable	Design package for reuse	Use packaging that is commonly collected with curbside recycling	Design durable packaging that is readily recycled	Reduce frustration with packaging waste	Reduced or compostable packaging reduces plastic pollution
Price	Lowered usage costs from reduced energy use	Design products to use less energy	Price refills at a discount relative to new purchases	Revise profit model to accommodate increased sales of refills but decrease in new unit sales	Offer discounts or return deposits for collected recyclables	Collaborate with regulators and supply chain partners to incentivize use of recyclables	Support companies using fair labor	Pay fair wage to laborers
Place	Access to second-hand or refurbished goods	Develop partnerships with suppliers to sell returns and damaged goods	Improve access to refills	Alter shelf space to promote refills	Serve as collection center for recycling	Develop a distribution model for collected recyclables	Consumers donate to food banks at checkout	Distribute food and household products to food banks and communities in need
Promotion	Offer alternatives to free products with purchase	Identify promotional items with reduced environmental footprints	Promote reusables through incentives	Alter infrastructure to streamline service when customers bring reusables	Communicate correct recycling policies	Encourage suppliers to add recycling labels to packaging	Communicate practices through certifications	Meet certification standards

their consumption process such as household service providers (lawn mowing, cleaning, housekeeping, etc.), and so forth. As shown in Fig. 2 and Table 2, retailers are the focal point of interaction among the myriad upstream actors (e.g., suppliers) and downstream actors (e.g., customers) in the supply chain. This is discussed next.

### *Retailers' Influence on Upstream Suppliers*

A retailer's supply chain may account for four times the gas emission as the focal company (CDP 2018). A typical consumer goods company's supply chain accounts for more than 80% of its greenhouse gas emissions and 90% of its impact on natural resources like air, land, and water (Bove and Swartz 2016). There is growing realization that successful sustainability efforts engage suppliers and other upstream members of the supply chain, with one-third of businesses planning to choose suppliers and partners that are more sustainable (HSBC Navigator Survey 2019). Getting upstream suppliers to adopt sustainability initiatives is an effortful and resource intensive task for most retailers.

Retailers may partner with suppliers on compliance challenges over human rights and labor issues (Nidumolu, Prahalad, and Rangaswami 2009). One of the ways firms attempt to reduce costs throughout the supply chain when consumers demand inexpensive and throwaway products is by reducing wages and creating unsafe working environments (Lewis et al. 2015). In some unfortunate cases, these practices encourage modern-day slavery (Bales 2016). Retailers face a conflict as increased consumption drives economic growth while also often precipitating environmental degradation as well as human rights abuses in marginalized communities (Fuchs and Lorek 2005; Trentmann 2016). As such, sustainability efforts increasingly consider the working conditions of the low-wage labor pool, especially in developing nations, expecting they be given a basic living wage, sanitary and safe working conditions, and opportunities to grow. This heightened awareness pressures retailers to manage their supply chain partners to uphold the sustainability values important to customers and community stakeholders.

Because of retailers' unique position connecting suppliers and customers, retailers can motivate suppliers to adopt sustainability goals by implementing standards, norms, and guidelines that drive suppliers' sustainability efforts (Gielens et al. 2018; Hermes 2012). Retailers can also educate their upstream supply chain members on customers' sustainability needs, willingness to pay for a sustainable product, and ways to effectively communicate with them. While in some cases retailers may consider cancelling relationships with supply chain partners because of environmental or human rights infractions, it may actually be beneficial for both parties to continue the relationship. By investing in supply chain relationships, upstream partners can earn the required resources to implement the appropriate compliance strategies to mitigate environmental and social deficiencies. If retailers were to completely end relationships with channel partners, there may be a decrease in sustainability improvements because of a lack of required resources or compliance oversight.

A comprehensive example of how a retailer uses its position in the supply chain to improve supply chain sustainability is Walmart's ambitious *Project Gigaton*. Project Gigaton seeks to eliminate (reduce) one billion metric tons (a gigaton) of greenhouse gases from the global value chain by 2030. Walmart requires suppliers who agree to participate in this initiative to be part of the sustainability hub, set goals, and report their impact to other members. Walmart incentivizes participants by not only exercising their position in the supply chain, but also recognizing the suppliers who participate in this initiative. The consortium provides an opportunity to educate Walmart's suppliers of the benefits of sustainable practices and empowers them with the tools that enable the adoption of sustainability goals. Perhaps an indicator of its success, at last count, over 1,600 suppliers partnered in this initiative. In addition to its environmental benefits, Project Gigaton yields societal benefits including improved air quality and working conditions for suppliers' employees, job creation, and better consumption experiences for Walmart's customers.

Table 3 lists various retailer initiatives that promote sustainability in the upstream supply chain. For example, in order to offer "Forever" bottles to reuse with cleaning tablets, Blueland must work with suppliers to develop durable bottles as well as cleaning solutions that dissolve in water and require minimal packaging. Retailers can also serve as a distribution point for reused, remanufactured, or recycled products from suppliers. For example, Nordstrom's "See You Tomorrow" retail store sells returned and damaged clothing, which is a change in supplier relations as Nordstrom no longer returns these items to the supplier or landfills them.

### *Retailers Influence on Downstream Customers*

Consumer participation is vital in closing the sustainability loop. Prior research has documented an "intention-action" gap in consumers' sustainability efforts and their adoption of sustainable products. Not all consumers who report positive attitudes toward sustainable products and services follow through with their wallets. In one recent survey 65% said they want to buy purpose-driven brands that advocate sustainability, yet only about 26% actually did (White, Habib, and Hardisty 2019). Further, 31% of consumers said lack of support from business is a barrier to participating in a circular economy and 27% admit to not knowing how to participate in a circular economy (Sharma 2020). These statistics suggest that customers may lack the motivation, ability, and opportunity to support sustainability goals.

Retailers have sought to address these concerns with the end customer's sustainability efforts through many initiatives outlined in Table 3. For example, Unilever entered a partnership with Walmart and Hilary Duff to develop a "bring it to the bin" campaign. Designed to motivate shoppers to recycle in all areas of the home, this campaign seeks to educate and incentivize consumers about recycling all packaging, including bathroom plastics. Lush Cosmetics, a bath and body brand, offers free products to customers who bring in empty product packaging to recycle, and makes solid shampoo bars that help reduce packaging waste, offering "naked" or packaging-free products. Other

Table 3  
 How retailers are using the 3r's to enhance sustainability outcomes.

	Reduce	Reuse	Recycle	Social Outcomes
Product	Rent the Runway offers clothing rentals	Best Buy's Geek Squad offers repair services	Walmart and Hilary Duff develop "bring it to the bin" campaign to encourage recycling	Levi's digitally finishes jeans, stopping employee exposure to harsh chemicals
	Care by Volvo and Hertz My Car offer vehicle subscription services	Dell designs its computers to be upgraded easily	Adidas Futurecraft Loop shoes are to be ground down after use and made into new shoes.	Coca-Cola pledges to eliminate child labor in sugar harvesting by 2025
	Starbucks introduced new strawless lids with nine percent less plastic	Ikea buys back furniture for resale	Google plans to introduce recycled materials in 100% of their Made by Google products launching in 2022 and beyond.	Ikea partnered with Better Cotton Initiative to promote sustainable use of resources within its cotton supply chain, improving the lives of farmers in South Asia
Package	Lush offers 35% of products "naked" (packaging-free)	Blueland has concentrated cleaning tablets to refill "forever" bottles	Green Toys uses paper or cardboard packaging that is easier to recycle than plastic toy packaging	Henkel sets up social plastic, which allows people to get tokens for food when returning packaging
	Seventh Generation and Tide redesigned lighter laundry detergents by cutting down on plastic in packaging	Loop provides products in refillable packaging		Molson Coors makes compostable, biodegradable six-pack rings to reduce harm to wildlife from pollution
Price	Nest promotes cost savings from smart Nest Thermostat	Dollar Shave Club offers low-priced razor blade refills to encourage reuse of razor handle	North Face created "Clothes the Loop" to encourage apparel recycling by offering a discount on next purchase	Target raised minimum wage for frontline workers
Place	Nordstrom's See You Tomorrow Resale Shop sells returned and damaged clothing	Ulta Beauty sells customizable Eyeshadow Bars with single refills sold in store	Preserve partners with Whole Foods to collect plastic utensils in store, utilizing distribution centers	Each Aldi store partners with a local Feeding America member food bank
Promotion	Net-a-Porter uses proprietary labels to identify eco-conscious products	Target offers a 5-cent discount for each reusable bag	Walmart will Label 100% of food and consumable private brand packaging with the How2Recycle® label by 2022	Beautycounter is a Certified B [Benefit] Corporation
	Kroger offers Pickuliar Picks for imperfect produce			

retailers are helping educate customers about sustainable products by creating entire sections for sustainable products in their stores or websites (e.g., REI allows consumers to filter results by sustainability attributes such as recycled materials, animal welfare, and organically grown cotton). Loop, the company that is bringing back the "milkman" model by offering traditional consumer products in refillable packaging will have an aisle in retail stores (Pierce 2019). Other retailers are educating consumers by developing proprietary labelling systems that label products as eco-conscious, socially responsible, or sustainable (e.g., Net-a-Porter and Selfridges use proprietary labels).

As listed in Table 3, retailers have integrated customers into the circular economy. Consumers may rent clothing from retailers like Rent the Runway or repair electronics through services like BestBuy's Geek Squad. Retailers also educate consumers about how to recycle, as with Preserve's collaboration with Whole Foods. Whole Foods collects plastic cutlery that is returned to their distribution centers for Preserve to transform them into products that range from recycled toothbrushes to tableware. Additionally, many retailers are now selling used products in their stores. Not only does this increase the accept-

ability of consuming used products, but it also makes it easier for consumers to buy and return them. Specific examples of such efforts are Nordstrom's "See you Tomorrow" shop that sells reused and damaged clothing, and Walmart's recent partnership with ThredUp to give its customers exclusive access to ThredUp's gently used branded products.

### Scaling Sustainable Supply Chains for Systemic Impact

Most retailers are in the early stages of scaling up their sustainable supply chains with sustainability viewed as ad-hoc, bolted-on solutions with little systematic efforts. Retailers must overcome five key impediments to implement a scalable sustainable supply chain focused on both 3R's and social outcomes. Fig. 3 shows the five impediments: short-term focus, single stakeholder, internal change, stand-alone initiatives, and adoption orientation. By moving to the right on each of these factors retailers can achieve scalable, sustainable supply chains and reap the benefits associated with such supply chains, thereby serving as mandates for the increasingly popular C-suite role of Chief Sustainability Officer.





Fig. 3. Impediments to scaling up sustainable supply chain management.

### Long-Term focus

Many sustainability practices do not yield immediate positive returns as they require either a change in customer behavior or adoption and/or implementation of standards across supply chain members, both of which take time. For example, the resale market grew 25 times faster than the overall retail market in 2019 with total resale market expected to hit 64 billion dollars within the next five years, but such growth has taken decades to arrive (Thomas 2020). It is only now that recommerce retailers such as ThredUP or Rent the Runway are reaping the benefits. Similarly, on the supplier side, sustainability initiatives, albeit often framed as a win-win, involve making trade-offs between economic, social, and environmental goals in the short run as many suppliers might not meet sustainability standards set by retailers. In such cases, instead of severing relationships, retailers will have to work with the suppliers to help them achieve these standards. Indeed, The Sustainability Consortium is an attempt at helping the suppliers meet sustainability standards in the long run. Additionally, some sustainability-promoting technologies might be prohibitively expensive in the short term, but exponential improvements of technology and lowering of costs can make these profitable in the long run. Thus, to achieve scalable sustainable supply chains, retailers must take a longer-term approach in evaluating their sustainability initiatives and measuring their benefits. Perhaps recognizing this, some retailers and channel members (e.g., Unilever) have shifted to annual rather than quarterly reporting. Additionally, for lasting impact, retailers must move away from short-term metrics and use nontraditional performance indicators that assess environmental and social impact. One way to accomplish this is to create a report card that explicitly incorporates short-term and long-term metrics and goals that signal progress on those metrics.

### Multiple Stakeholders

Supply chains, by definition, involve a network of businesses that facilitate the flow of goods and services globally. While retailers can initiate their own sustainability practices, they need to coordinate activities across multiple participants in the supply chain to scale their impact. Even within its immediate supply chain, while it might be relatively easier for retailers to enforce and monitor sustainability standards of first-tier suppliers, it becomes particularly challenging to ensure that second- and third-tier suppliers adopt sustainability standards (Villena

and Gioia 2020). To overcome this challenge, Ikea,<sup>3</sup> which uses approximately one percent of all cotton produced in the world, partnered with Better Cotton Initiative to promote a sustainable cotton supply chain, improving the lives of farmers in South Asia and reducing the use of chemical fertilizers and pesticides.

Other stakeholders have to be considered to enable a sustainable supply chain. An initial focus on suppliers' social and environmental impact needs to be aligned with consumer attitudes. Sustainability practices should also consider industry resistance and potential collaborations to overcome such resistance among stakeholders. Regulatory pressures may be thwarted if multiple stakeholders partner with a retailer and are engaged in the process of self-regulation, that is, voluntary setting of new industry standards, norms, and goals. Indeed, many sustainability issues will require many different retailers to collaborate across their respective retail supply chains. For example, Action Collaboration Transformation (ACT), an initiative made up of global brands and retailers and trade unions, aims to achieve living wages for garment workers through collective bargaining. Retailers can engage multiple stakeholders through information sharing, participating in industry forums, and developing formal and informal networks among the diverse stakeholders who may otherwise not interact with each other.

### Infrastructure Overhaul

Once a retailer makes internal changes to be sustainable, they can alter the infrastructure in conjunction and consultation with other stakeholders. Lack of supporting infrastructure can lead to some sustainability initiatives failing and can prevent others from ever getting started. For example, many retailers plan to use renewable energy to power their stores but the infrastructure to adopt renewable energy sources and its cost are still prohibitive for most retailers. Starbucks, for example, has made a commitment to source 100% of the energy across its U.S. and Canadian stores from renewable sources either through purchasing credits or through making direct investments (Golden 2019). Similarly, electric-vehicle adoption is hindered by lack of EV charging stations. Many gas stations (e.g., Wawa, Sheetz) have recently turned their attention on increasing the footprint of these EV charging stations, addressing an infrastructure need.

Lack of infrastructure overhauls can result in solutions being bolted on, instead of the process being reimaged. For example, poultry and produce currently produced in the U.S. can be shipped to China for processing before it is returned to the U.S. for consumption. While such processes may lower costs and seem efficient, they might not enhance (environmental) sustainability efforts. To achieve environmental sustainability goals, it might make sense to process the produce in the U.S. as well, thereby requiring a complete infrastructure overhaul. Similarly, at the heart of sustainable supply chains is the idea of hyper-transparent supply chains, that is, supply chains where companies know the sourcing and working conditions of all

<sup>3</sup> Ikea's statement available at: <https://about.ikea.com/en/sustainability/responsible-sourcing/committed-to-sustainable-cotton>.

its suppliers, not just tier one suppliers. Such hyper-transparent supply chains can only be achieved by digitizing the supply chain and incorporating technologies such as artificial intelligence, blockchain and RFID. For example, Nike is trying to gain transparency and visibility into the operation of its factories and inventory flowing across multiple countries by extensively adopting RFID and other technologies, and reimagining the supply chain infrastructure.

Industry organizations can help raise funds for developing new infrastructure and establish guidelines and norms for their utilization and deployment. The success of such infrastructure initiatives allows them to be expanded and replicated. Consumers may be more likely to change behavior because of the convenience and ease afforded by infrastructure, facilitating reduce, reuse, and recycling initiatives. For example, infrastructure that allows single-stream recycling pickup from consumer houses can dramatically improve recycling compared to when consumers are required to take their recyclables to a recycling center.

#### *System-Wide Integration*

Several retailers start stand-alone, ad-hoc sustainability initiatives in response to consumer or supplier demands, regulatory changes, or macroeconomic shocks (e.g., COVID-19). These stand-alone initiatives may achieve short-term outcomes such as preventing consumer boycotts or regulatory fines but they are unable to achieve the magnitude of impact that can occur under system-wide integration. System-wide integration occurs when the initiative is (1) supported by and relevant to multiple participants, (2) backed by resources and infrastructure, and (3) woven into the fabric of “how retailing is done.” An example of a company moving from stand-alone initiatives to system-wide integration is Starbucks. Take the example of plastic straws. In 2018, Starbucks eliminated plastic straws and replaced them with paper straws in Korea.<sup>4</sup> In the same year, they announced the goal to eliminate plastic straws globally across their stores by 2020, developing innovative strawless cold beverage lids. In 2020, following their commitment to eliminate plastic straws, Starbucks eliminated plastic straws in Asian countries such as Japan, Indonesia, and Thailand while at the same time improving their innovative strawless lid by making it with less plastic. When sustainability initiatives are integrated throughout the supply chain from raw material suppliers to consumers, the benefits from any one initiative are multiplied, particularly since stand-alone initiatives can easily run out of resources and/or be adopted by others, providing very little or no competitive advantage. However, to achieve system-wide integration, retailers should focus on a smaller number of sustainability initiatives rather than chasing the latest environmental fad.

#### *Entrenchment Orientation*

As explained by Zeitz, Mittal, and McAulay (1999), “adopted practices that are not yet entrenched are referred to as fads, and *entrenchment* is defined as the embedding of practices such that they are likely to endure and resist pressure for change” (page 741). By adopting an entrenchment orientation toward sustainability, retailers can ensure that sustainability initiatives and practices endure within the retailing sector and do not become passing fads. This requires a longer-term focus, involving multiple stakeholders, overhauling infrastructure, and focusing on system-wide integration so that sustainability is fully embedded in the retailing sector. From a leadership perspective, retailers can also reform industry and organizational culture to integrate sustainability as a core value, which can mitigate consumers’ concerns regarding greenwashing. As Vincent Stanley, Director of Philosophy at Patagonia, notes: “We try to take stands only on issues where we have solid experience and never rely exclusively on advertising to make our point” (Stanley 2020). Indeed, and to this point, Patagonia refuses to take stands on issues such as immigration wherein they are not experts but always stand for environmental issues, family leave, and child-care (Stanley 2020). An entrenchment orientation goes hand in hand with system-wide integration—by focusing on a few initiatives retailers such as Patagonia ensure they are consistently implemented and, over time, become entrenched in the supply chain rather than being uprooted by the latest fad (Mittal and Sridhar 2020).

### **Key Behavioral Mechanisms to Enable/Influence Sustainable Retail Supply Chain**

Retailers can help infuse sustainability in the retail supply chain through the five mechanisms described next.

#### *Incentive Alignment Mechanisms*

There is a vast literature in marketing showing the effect of incentive alignment on how consumers, retailers, manufacturers, wholesalers, and others behave (Alba et al. 1997). To the extent that actors are value and/or profit maximizing, their behaviors can be influenced by aligning their motivation and opportunity to the goal of sustainability. Retailers such as Amazon, Walmart, and Target can play a pivotal role in aligning incentives for various actors in the supply chain to promote sustainability. Indeed, aligning incentives is perhaps the most sure shot way of advancing sustainability goals across the supply chain. As an example, Best Buy offers promotions to encourage customers to recycle used appliances and computer equipment, and Henkel provides unique tokens for individuals to redeem food if they bring in used plastic. Retailers may provide monetary and nonmonetary incentives to their suppliers and partners to promote sustainability practices in their supply chain. For example, Target, both in store and online, labels products that are formulated without a group of commonly unwanted chemicals, incentivizing suppliers not to use such chemicals.

<sup>4</sup> Starbucks statement available at: <https://stories.starbucks.com/press/2020/starbucks-eliminates-plastic-straws-how-available-across-the-u-s-and-canada/>.

### *Infrastructure Development and Investments to Facilitate Long-Term Sustainable Behavior*

Sustainability initiatives such as recycling, reusing, and reducing require substantial infrastructure investments (e.g., recycling containers, green investments) and careful coordination across multiple entities for optimal utilization (Yudelson 2009). Since most sustainability efforts require reimagining the way companies do business, infrastructure investments are often the difference between successful and failed sustainability efforts. For example, Best Buy's recycling infrastructure has collected over two billion pounds of electronics and appliances through its recycling program, which involves close coordination around processes such as picking up appliances from customers' homes, helping customers wipe hard drives clean, providing promotions to incentivize customers to recycle, and to educate them about purchasing greener electronics.<sup>5</sup> Similarly, to meet their goals for 100% renewable energy, Starbucks invested in solar farms in North Carolina.

### *Mechanisms for Developing and Enforcing Norms*

Norms play a critical role with helping structure economically efficient relationships among independent parties (Heide and John 1992). Retailers can not only help to develop norms favorable to promoting sustainability but also enforce them through mutual reinforcement (Burchell, Rettie, and Patel 2013). For example, studies show that promoting norms such as "75% of guests reuse their towels" led to increased towel reuse among hotel guests (Goldstein, Cialdini, and Griskevicius 2008; Terrier and Marfaing 2015). Consumers are also more likely to reduce energy use when their usage is compared to neighbors (Allcott 2011). Sustainability norms also influence suppliers as individual companies and industry organizations set new standards to which suppliers must conform. As an example, the American Cleaning Institute's Cleaning Product Ingredient Safety Initiative provides specific guidelines to its members. These non-binding guidelines provide sector-wide norms that are accepted and followed by manufacturers of cleaning products sold in retail stores.

### *Governance Mechanisms*

The development, maintenance, and support of sustainability initiatives requires adequate governance at many levels: from local, state, and national governments to shareholders and even customers (Aras and Crowther 2008; Young 2016). For example, corporate governance mechanisms such as those related to ESG (environment–sustainability–governance) have led to specific actions that are documented and disseminated widely to shareholders and customers. Yet, to this day, while companies have shown improvement in addressing the impact of social and labor issues within their own operations, they may be

neglecting the risks that exist among their suppliers. The 2019 Business Sustainability Risk and Performance Index report that analyzed over 40,000 companies found that 80% of suppliers lack supply chain due diligence measures, 57% failed to monitor working conditions, and 44% lack health and safety preparedness, revealing the need for proper governance and monitoring mechanisms across the supply chain (EcoVadis 2020). Governance mechanisms are not restricted to within the supply chain. Retailers are also impacted by state or local governments such as bans on single-use plastic bags (National Conference of State Legislatures 2020). At the same time retailers can design and advance internal governance mechanisms such as conducting periodic audits and issuing reports evaluating their sustainability efforts and using ethics committees to resolve dilemmas pertaining to their sustainability initiatives (Zyung et al. 2020).

### *Information Exchange and Education*

The importance of information exchange and education is critical from a variety of perspectives. The Suston-EOG (2019) Retail Sustainability Survey found store managers and small retailers had low to intermediate knowledge about key sustainability themes such as product CO<sub>2</sub> footprint, microplastics, and the Higg index. Similar concerns about suppliers, their lack of knowledge and inability to achieve sustainability goals imposed on them (Villena and Gioia 2020). Retailers use many avenues to disseminate their sustainability-related knowledge and their efforts to address sustainability. For example, Walmart's 2019 Environmental, Social & Governance report provides important information to its shareholders while Walmart's sustainability consortium transfers knowledge among suppliers. Best Buy's recycling infrastructure provides customized information to residents of each state to help them recycle appliances and electronics in a manner consistent with state and local laws. As another example, the Center for Retail Compliance (2018) educates consumers and retailers on the environmental impact of products, greenhouse gases, chemicals, toxins, and waste.

### *Using the Five Mechanisms to Scale Sustainability*

Retailers can use all five mechanisms to ensure the widespread adoption and entrenchment of sustainability in their supply chain although the relative efficacies of these behavioral mechanisms can vary based on various contextual factors such as the focus of the sustainability initiative, the size of the firm undertaking the sustainability effort, and the resources available to the focal company. We believe that retailers utilizing several mechanisms simultaneously and systematically are more likely to succeed than retailers using a single method sporadically. As an example, setting norms, aligning incentives, and enforcing governance and oversight is more likely to ensure the success of a supply chain sustainability initiative than relying on norms alone or on governance mechanisms that fail to align participants' incentives.

Table 4 builds on Table 3, and provides various mechanisms used for successful retailing sustainability initiatives. We use

<sup>5</sup> See: <https://www.bestbuy.com/site/services/recycling/pcmcat149900050025.c?id=pcmcat149900050025>.

Table 4  
 Behavioral mechanisms enabling sustainability in retail supply chain.

	Reduce	Reuse	Recycle	Social
Product	Rent the Runway offers clothing rentals at lower price than owning clothes  Care by Volvo and Hertz My Car offer vehicle subscription services  Starbucks introduced new strawless lids with 9% less plastic	Best Buy’s Geek Squad offers repair services  Dell designs its computers to be upgraded easily  Ikea buys back furniture for resale	Walmart and Hilary Duff develop “bring it to the bin” campaign to encourage recycling Adidas Futurecraft Loop shoes are to be ground down after use and made into new shoes. Google plans to introduce recycled materials in 100% of their Made by Google products launching in 2022 and beyond	Levi’s digitally finishes jeans, stopping employee exposure to harsh chemicals Coca-Cola pledges to eliminate child labor in sugar harvesting by 2025
Behavioral mechanisms	- <i>Infrastructure</i> - <i>Norms</i> - <i>Incentive alignment</i>	- <i>Incentive alignment</i> - <i>Infrastructure</i> - <i>Norms</i> - <i>Education</i>	- <i>Infrastructure</i> - <i>Education</i>	- <i>Governance</i> - <i>Norm</i> - <i>Incentive alignment</i>
Package	Lush offers 35% of products “naked” (packaging-free)  Seventh Generation and Tide redesigned lighter laundry detergents by cutting down on plastic in packaging	Blueland has concentrated cleaning tablets to refill “forever” bottles  Loop provides products in refillable packaging	Green Toys uses paper or cardboard packaging that is easier to recycle than plastic toy packaging	Henkel sets up social plastic, which allows people to get tokens for food when returning packaging Molson Coors makes compostable, biodegradable six-pack rings to reduce harm to wildlife from pollution
Behavioral Mechanisms	- <i>Education</i> - <i>Incentive alignment</i> - <i>Infrastructure</i>	- <i>Incentive Alignment</i> - <i>Infrastructure</i> - <i>Norms</i> - <i>Education</i>	- <i>Governance</i> - <i>Infrastructure</i>	- <i>Incentive alignment</i> - <i>Education</i> - <i>Norms</i>
Price	Nest promotes cost savings from smart Nest Thermostat	Dollar Shave Club offers low-priced razor blade refills to encourage reuse of razor handle	North Face created “Clothes the Loop” to encourage apparel recycling by offering a discount on next purchase.	Target raised minimum wage for frontline workers
Behavioral mechanisms	- <i>Incentive alignment</i> - <i>Education</i>	- <i>Incentive alignment</i> - <i>Norms</i> - <i>Education</i>	- <i>Incentive alignment</i> - <i>Infrastructure</i> - <i>Norms</i>	- <i>Norm</i> - <i>Governance</i>
Place	Nordstrom’s See You Tomorrow Resale Shop sells returned and damaged clothing	Ulta Beauty sells customizable Eyeshadow Bars with single refills sold in store	Preserve partners with Whole Foods to collect plastic utensils in store, utilizing distribution centers.	Each Aldi store partners with a local Feeding America member food bank
Behavioral mechanisms	- <i>Incentive alignment</i> - <i>Infrastructure</i> - <i>Norms</i>	- <i>Norms</i> - <i>Infrastructure</i> - <i>Education</i>	- <i>Infrastructure</i> - <i>Education</i> - <i>Norms</i>	- <i>Governance</i> - <i>Norms</i> - <i>Education</i>
Promotion	Net-a-Porter uses proprietary labels to identify eco-conscious products.  Kroger offers Pickuliar Picks for imperfect produce	Target offers 5-cent discount for each reusable bag.	Walmart will Label 100% of food and consumable private brand packaging with the How2Recycle® label by 2022	Beautycounter is a Certified B [Benefit] Corporation
Behavioral mechanisms	- <i>Norms</i> - <i>Education</i> - <i>Governance</i>	- <i>Incentive alignment</i> - <i>Infrastructure</i> - <i>Norms</i> - <i>Education</i>	- <i>Governance</i> - <i>Education</i> - <i>Norms</i>	- <i>Norms</i> - <i>Governance</i> - <i>Education</i>



the basic marketing strategic levers of 5P's to discuss how retailers can enable customers and suppliers to achieve sustainability goals associated with 3R's and societal outcomes through the five mechanisms discussed above. We now revert to Walmart's Project Gigaton example to discuss how these five mechanisms can be used to enable the circular economy. In terms of infrastructure and coordination, Walmart provides a well-defined process and website that can be used by suppliers to document their progress with sustainability. Suppliers are recognized for their efforts, which sets social and economic norms that can be followed by others. By stating that more than 1,000 suppliers have committed to Project Gigaton, Walmart is creating and supporting a social norm for sustainability (Boynton 2019). Walmart uses voluntary and involuntary governance mechanisms to support sustainability. Thus, Walmart has pledged to support only suppliers whose textile mills use the Sustainable Apparel Coalition's Higg Index Facility Environmental Module (FEM) to measure and help improve environmental performance by 2022 (Boynton 2019). The module helps standardize the way that apparel, footwear, and textile manufacturing websites share information with the brands buying their products (Clancy 2018). Finally, Walmart conducts an annual summit to facilitate information exchange and education among its supplier and employee community. This is in addition to the updated information available on the Project Gigaton website. By incorporating all five mechanisms in Project Gigaton, Walmart ensures that its sustainability efforts yield the expected impact throughout the supply chain.

### Sustainability in Retailing: A Research Agenda

Research examining sustainable supply chains can benefit from taking the vantage point of a retailer trying to enable upstream suppliers and downstream consumers to adopt sustainability related goals. Taking a consumer and supplier perspective can provide a broadened and richer avenue for developing future research. In this section, we discuss future research on the retailer-consumer link and retailer-supplier link. Table 5 provides illustrative future research questions in each of these domains and the identified subdomains.

#### *Retailer-Customer Sustainability Efforts*

Customers (buyers) and consumers (users) are two of the most influential external stakeholder groups that can influence retailers' desire to implement SSCM in retailing. First, customers must purchase and pay for sustainable products and services. Second, consumers should return, reuse, and recycle products after initial use by reintroducing the product back into the supply chain. Third, customers' purchase and consumption behaviors must reflect their stated desire for sustainability. This may not occur if customers and consumers do not have the motivation, ability, or opportunity to do so; in many cases, customers and consumers remain confused and overwhelmed by product information on sustainability attributes and appropriate behav-

iors. From a marketing perspective, there are many research opportunities.

#### *Effective communication*

As companies recognize consumers' growing demand for sustainable products, they are offering more and more green labels and sustainability attributes. One consequence of these efforts is greenwashing, misleading claims about environmental performance, or environmental benefits of a product or service that can leave consumers confused and skeptical (Chen and Chang 2013; Delmas and Burbano 2011). One solution to address this issue entails cooperation among retailers, suppliers, and industry organizations to create standardized labels that consumers can easily interpret. Future studies should examine what types of communication (e.g., standardized labels) generates the best response from consumers. Studies should also examine if voluntary regulation by an industry is an effective way to generate consumer support or if it is riddled with concerns of authenticity.

More generally, research is needed to better understand consumer decision-making regarding sustainability product claims—how do consumers weight and trade off sustainability with other attributes. Evidence also suggests that sustainability may not be the most important attribute in consumer decision-making; consumers may still weight price and quality more than sustainability (Luchs et al. 2010; Van Doorn and Verhoef 2011) especially since sustainability is not only an abstract attribute (White, Habib, and Hardisty 2019), but one whose benefits may not be apparent to customers (Tully and Winer 2014).

Marketing scholarship should also conduct research to better understand communication approaches and strategies with customers and consumers about post-purchase behaviors. After consumers purchase a product, what is the best way to help them utilize the product in a sustainable manner? Even when consumers do not buy a product for its sustainability benefits, can they learn the benefits of sustainability during the consumption process? How can communication efforts be tailored to increase customer engagement and involvement in sustainability efforts? Strategy researchers can examine the role of communication strategies designed to align customers, employees, and shareholders. A key question that has not been examined in previous research is the extent, and consequences, of alignment between firms' communication to these different stakeholders.

#### *Motivating behavior change*

Even when consumers understand information about retailer and supplier sustainability efforts, they may not be motivated to change their own behavior, as evidenced by the intention-behavior gap (White, Habib, and Hardisty 2019). At the basic level, retailers and academics seek to examine ways to motivate consumers to purchase sustainable products. However, motivating behavior change—from a sustainability perspective—is even more important during the post-purchase consumption phase. Thus, research into changing consumers' post-purchase behaviors so that they reduce, reuse, and recycle is a key research priority. Research should examine the myriad impediments to post-purchase sustainable behaviors. The cost to the environ-

Table 5  
Under-researched sustainability domains and illustrative research questions.

Domain area	Illustrative future research questions
Effective communication	<ul style="list-style-type: none"> <li>• How can sustainability related information on social and environmental impact be standardized to reduce consumer confusion?</li> <li>• How can the environmental and social impact of product purchase be effectively conveyed to consumers?</li> <li>• How can marketing communications influence post-purchase consumption behaviors that are aligned with a circular economy?</li> </ul>
Motivating behavior change	<ul style="list-style-type: none"> <li>• How can supplier incentives and customer incentives be aligned for profitable take-back programs? What role does the framing of incentives—instrumental and symbolic—play in alignment?</li> <li>• How can new business models such as shared services, rather than ownership, be normalized without stigma? What role do self-service technologies and web-enabled consumption play in sustainable behaviors?</li> <li>• How can retailers use alternative offerings to mitigate overconsumption through disposable lifestyles? What is the role of ownership utility versus consumption utility in promoting or preventing sustainability behaviors during consumption?</li> </ul>
Retail transformation	<ul style="list-style-type: none"> <li>• To what extent might consumer attitudes toward sustainability incentivize minimal product returns even if they are free? How can the wastefulness of product returns be made salient to consumers to minimize returns? Can shipping fees be used to help consumers engage in sustainable consumption?</li> <li>• When do customers’ sustainability values drive the choice of delivery mode for online purchases? How can this be enhanced?</li> <li>• As the social and environmental costs of home delivery (e.g., traffic, pollution) continue to be treated as externalities, what are the potential consequences to retailers if this issue is addressed by public policy?</li> </ul>
Sustainability culture in retailing	<ul style="list-style-type: none"> <li>• What are the economic and noneconomic antecedents and outcomes of a sustainability culture?</li> <li>• What is the role of customer focus in adopting and implementing a sustainability culture? Do sustainability culture and customer-focus reinforce or impede each other?</li> <li>• How can retailers balance their focus on satisfying customer needs when customers may not value sustainability as much as other stakeholders?</li> <li>• What factors encourage senior leaders and employees of a company to value sustainability?</li> </ul>
Retailer-supplier relationships to promote sustainability	<ul style="list-style-type: none"> <li>• What is the role of a retailer’s relational capital with its suppliers in enabling the adoption and entrenchment of sustainability in the supply chain?</li> <li>• What governance mechanisms and norms work best to achieve sustainable supply chains in retailing?</li> <li>• What role does information technology play in the adoption and entrenchment of sustainability?</li> </ul>
Sustainability outcomes	<ul style="list-style-type: none"> <li>• Should sustainability outcomes be conceptualized in terms of the level of reduction, reuse, and recycling? How can we measure them using standardized and easy-to-use scales?</li> <li>• How can marketing help develop a customer-based measure of retailer sustainability? Future research should not only develop such a sustainability index, but also examine its association with a variety of firm-level outcomes.</li> <li>• What impact does sustainability have on broader societal outcomes such as quality of life, life satisfaction, and how it improves people’s lives?</li> </ul>

ment of a “throw-away” lifestyle is high, but consumers must be motivated to invest the effort to overcome the convenience factor. In contrast to disposable goods, consumers’ attachment to material possessions can make it difficult for them to part with such possessions that could otherwise enter the secondary market or circular economy via recycling (Trudel, Argo, and Meng 2016; Winterich, Reczek and Irwin 2017). There may be stigmas such as frugality that need to be overcome for nontraditional rental business models to be successful, for which social norms may be useful. In general, consumer behavior scholars should address the efficacy of many different approaches—norms, incentives, and education—that can be deployed simultaneously to encourage sustainable behaviors. From a marketing strategy perspective, research is needed to develop metrics that help retailers measure the success of their sustainability efforts.

These metrics should go beyond traditional sales-based metrics in retailing to focus senior management’s attention on repeat utilization, recycling rates, and margin expansion from savings gained through reusing, reducing, and recycling (Sustainable Development Goals 2020).

*Retail transformation*

The transformation besetting retail—online shopping, home and autonomous delivery, replacement of brick-and-mortar stores with click-shopping, implementation of technologies such as omnichannel, shopping platforms such as Etsy—has fundamentally redefined the retailing industry (Fisher, Gallino, and Xu 2019). This transformation has exacerbated concerns about sustainability based on factors such as increased packaging for home delivery and overconsumption from increased con-

venience. But, it has also provided niche retailers with the opportunity to focus on customers who value sustainability and are willing to pay for it. We need more research to understand the strategic implications of this transformation for the retail sector. Does the asymmetric growth of retail giants such as Walmart and Amazon increase or decrease sustainability in retail supply chains? Will the advent of online specialty retailers fragment the market for sustainable products and services? These are issues marketing strategy scholars should examine using analytical and empirical research approaches.

From a consumer behavior perspective, research should examine the impact of these changes in consumer choice processes, and their impact on consumer attitudes and behaviors related to reduce, reuse, and recycle. These research programs will invariably also inform public policy debates (Rai, Verlinde, and Macharis 2019). For example, as the rate of home deliveries and pickups expands, so do related social costs such as fuel pollution and global warming. Research is needed to understand if, when, and how retail transformation can be a stimulus or a barrier to sustainability practices.

#### *Retailer–Supplier Sustainability Efforts*

As noted previously, a key factor facilitating sustainable supply chains is the long-term cooperation between retailers and their suppliers. Both parties must take a longer-term, system-wide approach to supply chain management to overcome impediments to sustainability. Invariably, marketing scholars can inform these efforts using a variety of research methods such as analytical models, surveys linked to specific behaviors, and secondary/archival datasets. In this regard, several research perspectives can inform research inquiry.

#### *Sustainability culture in retailing*

Organization culture has been defined as a set of accepted behavioral rules, norms, and rituals (e.g., Trice and Beyer 1984) or shared values, ideologies, and beliefs (e.g., Schwartz and Davis 1981). A strong organizational culture can help companies adapt to changing goals (Cameron and Quinn 2011). In the context of sustainability, research is needed to ascertain the antecedents, dimensions, and consequences of a sustainability culture among retailers and their partners. In terms of articulating the dimensions of a sustainability culture, research should incorporate both economic and noneconomic antecedents and outcomes of a sustainability culture, since a narrow economic focus may be limiting. More generally, there is a need to understand the role of customer focus in adopting and implementing a sustainability culture. Is it possible for retailers to overfocus on sustainability at the expense of satisfying underlying basic customer needs such as quality, low price, and convenience? Do sustainability culture and customer-focus reinforce or impede each other? How can retailers balance their focus on satisfying customer needs when customers may not value sustainability as much as other stakeholders such as institutional investors and suppliers?

#### *Retailer-supplier relationship to promote sustainability*

Marketing scholarship has a storied history examining exchange relationships from a business-to-business perspective (Gundlach and Murphy 1993). As discussed earlier, retailers desirous of scaling up sustainability in retail supply chain would need to develop a close and cooperative relationship with their suppliers and other stakeholders. Several questions in this regard remain unanswered. What is the role of a retailer's relational capital with its suppliers in enabling the adoption and entrenchment of sustainability in the supply chain? Accounting for price and quality, what is the extent to which retailers' satisfaction with their suppliers depend on the suppliers' sustainability performance (Mittal and Sridhar 2020)? What governance mechanisms and norms work best to achieve sustainable supply chains in retailing? Specifically, research can examine the efficacy of governance structures such as incentive-oriented structures, monitoring-based structures, or enforcement-based structures to implement supply chain sustainability.

Increasingly, investment in and application of information technology systems has been advanced as a key reason for increased competition and a differentiating factor that enables organizations to survive and thrive (Aral and Weill 2007; McAfee and Brynjolfsson 2008). However, limited studies have examined the role of information technology in enabling the triple bottom-line. Nonetheless, technology has increasingly emerged as an enabler of sustainability goals from nudging customers to engage in sustainable actions to facilitating sustainable procurement practices, reducing wastage and reducing impact on the environment. Future studies should examine the role of information technology in promoting sustainability. Specifically, how the use of technology, information exchange, and data facilitate the adoption and integration of SSCM in the retail sector. How the use of technology can ensure supply chain transparency and influence the costs and benefits of transparency. Again, both analytical and empirical models can be used to examine these issues.

#### *Sustainability outcomes*

Sustainability is a broad and multidimensional construct. Should sustainability outcomes be conceptualized as the level of reduction, reuse, and recycling? Which specific social outcomes should be included in sustainability? Similar to the American Customer Satisfaction Index, is there a need to develop a customer-based measure of retailer sustainability? Future research should not only develop such a sustainability index, but also examine its association with a variety of firm-level outcomes. These downstream outcomes may include financial outcomes (accounting and stock market metrics) and nonfinancial outcomes related to retailer reputation and brand-equity (Martin et al. 2018).

As more and more retailers and supply chain members adopt sustainability goals, shareholders will require a clearer understanding of how to evaluate performance of these sustainability initiatives, enhance accountability of channel members toward these sustainability initiatives, and ascertain the bottom-line impact of these sustainability initiatives on company and societal goals. From a macro-marketing perspective, scholars should

measure the impact of SSCM on broader societal outcomes such as quality of life, life satisfaction, and how it improves people's lives. Further, sustainability should also be linked to brand equity since brand equity is seen as a key antecedent of financial performance. In this context, researchers can also examine concepts such as eco-branding, sustainability branding, and employee-based brand equity. Sustainability related issues can have political overtones (Jung and Mittal 2020); since they can polarize a firm's consumer base, studies should examine when firms should actively lead such efforts and when they should play a follower role (Hydock, Paharia, and Blair 2020).

## Conclusion

With changing societal norms and consumer attitudes, the need for businesses to consider and incorporate sustainability in their core strategy has never been more important. Retailers, as customer-interfacing entities, are in a unique position in any supply chain to influence both upstream suppliers as well as downstream customers. As described in this paper, retailers can address sustainability in retail supply chain using the circular-economy concept. Retailers can ensure that all supply-chain participants reuse, reduce, and recycle and address societal issues to attain sustainability goals. Achieving these goals requires implementing specific behavioral mechanisms to gain commitment from suppliers and consumers, and we describe ways in which retailers can accomplish these goals. We hope that retailers, scholars, and others will benefit from the insights in this article to make the needed and necessary progress on sustainability.

### Executive summary

Sustainability is an increasing focus of retailers as consumers are becoming more concerned with environmental and social impact of their purchases. Because retailers are an important link in most supply chains, they can play a pivotal role in ensuring sustainability of the entire supply chain. Specifically, they can influence both upstream suppliers and downstream members of the supply chain (customers) to be more sustainable through a circular economy, which occurs when products at initial end-of-life stage are returned to supply chain for continued use. However, sustainable supply chains in the retail sector are not well understood. As such, many retailers have yet to commit to sustainability and those that do may struggle to meet their sustainability goals. This paper seeks to bridge this gap in extant knowledge by showcasing how retailers can enable a sustainable supply chain by leveraging its position in the supply chain to encourage suppliers and customers to adopt sustainability goals. In doing so, the paper identifies key issues that hinder adoption of sustainable supply chains among retailers and advances a research agenda for academics to better educate retailers on how to effectively adopt and achieve sustainability goals.

The paper begins with a discussion of sustainability and its application to the retail sector followed by a brief review of sustainable supply chain management, focusing on how sustainability requires enabling a circular economy. From this examination, the critical role of retailers in a circular economy,

due to their position in the supply chain between suppliers and consumers is identified. To better understand how retailers can use this position of influence, a framework for achieving sustainable supply chain management in retailing is proposed. This framework draws upon the traditional marketing touchpoints (product, price, place, promotion, as well as packaging, given its relevance to a circular economy) that retailers have access to and pairs it with core principles of a circular economy (reduce, reuse and recycle as well as social impact). Using examples of retailers' current sustainability initiatives, this framework illustrates how retailers can use their strategic levers to work with both consumers and suppliers to adopt sustainability goals.

Of course, retailer's engagement in sustainability initiatives are not without challenges. Thus, the next section of the paper addresses impediments to scaling sustainable supply chains to ensure that they have a systematic impact. Specifically, companies can advance the sustainability imperative by adopting a more long-term focus that engages multiple stakeholders and requires a system-wide integration and infrastructure overhaul that will ultimately result in sustainability being an entrenched organizational orientation. Such guidance could serve as mandates for increasingly popular top-management roles such as chief sustainability officer. Building on this discussion, the key behavioral mechanisms that can improve the success of retailer sustainability initiatives are presented. Drawing upon the illustrative examples used in the framework, the authors argue that incentive alignment, infrastructure development, development of norms, governance, and information exchange and education will help scale sustainability in retail supply chains.

The paper concludes by setting a research agenda to further advance retailing sustainability, particularly from a marketing lens. Consistent with the theme throughout the paper, we discuss how marketing can add to research on sustainable supply chains via both the retailer-customer link and retailer-supplier link. More specifically, we identify six broad and fertile avenues for future research: 1) effective communication, 2) motivating behavior change, 3) retail transformation, 4) sustainability culture in retail, 5) retailer-supplier relationship management and 6) measuring sustainability outcomes. Altogether, this paper lays the foundation for retailers to work with both customers and suppliers to achieve sustainability initiatives using key behavioral mechanisms and overcoming potential impediments.

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