

MEMORANDUM

TO: Jenn Low, CEO of Wanderlust + Co

FROM: Katherine Kurohara, Senior Consultant at Bain & Company

DATE: September 19, 2021

SUBJECT: Sustainability Initiatives for Wanderlust + Co

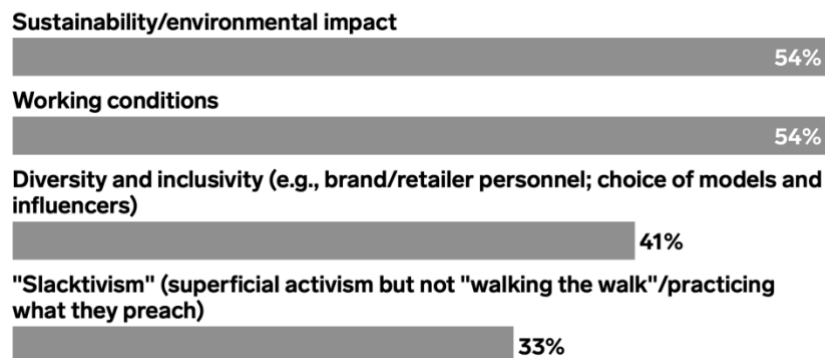
As we discussed in our last meeting, you asked me to investigate ways to incorporate sustainable practices into Wanderlust + Co's operations to both benefit the environment and meet consumer demand. I have identified and analyzed three avenues through which Wanderlust + Co can best achieve this:

1. Eco-friendly packaging
2. Sustainable last-mile delivery
3. Consumer incentive: flexible delivery times

Definition of trend

As you are aware, the efficiencies and flexibility of e-commerce that have become foundation of modern shopping culture — from lightning-fast shipping speed to single-use plastic packaging — continues to produce negative impacts on the environment. Consumers are realizing this and responding accordingly; 48% of U.S. consumers — 75% for millennials — are actively changing their purchasing habits to reduce their impact on the environment (Nielson). For online fashion brands in particular, sustainability influenced where 54% of shoppers bought from, as shown on the figure below (Abrams).

Factors that Have Influenced Where Adults in the US and Europe Buy Fashion and Clothing, Sep 2020 % of respondents



Young consumers especially are increasingly putting a premium on sustainability as large and small e-commerce businesses alike are transitioning to more sustainable models, serving as a greater opportunity for Wanderlust + Co to capitalize on their consumer base to drive brand loyalty and competitive agility while also benefitting the environment.

Eco-friendly packaging

With the growth of ecommerce, the most visible and pointed to environmental burden is the increase in packaging waste. B2C companies are prioritizing eco-packaging as an economic and social strategy — more now than ever. In fact, concepts such as “green design” and “eco-design” have become the new normal (Moreno). Consumers are also taking a stand; according to Trivium Packaging’s 2021 Global Buying Green Report, 54% of consumers say sustainable packaging is a factor in their product selection process (Trivium). Sustainable packaging is a way for brands to stand out by providing unique unboxing experiences to consumers, while also contributing to environmental sustainability. Looking across the positioning of industry players today, there are key aspects that Wanderlust + Co can integrate into their supply chain operations.

Packaging material

Sourcing and development play significant roles in sustainable packaging, which entails choosing eco-friendly materials during the packaging process. Material science and engineering has produced a new wave of innovative, sustainable alternatives to single-use packaging materials like plastic, which fall into three categories: recyclable, reusable, and compostable. Here are various options and accompanying packaging suppliers you can look into:

- *Paper and cardboard* – a common alternative to plastic packaging since they are recyclable and reusable. Companies like Amazon are making its boxes out of recycled corrugated cardboard or other cellulosic materials.
 - Packlane is a minimal, affordable option that offers its Econoflex corrugated cardboard shipping box made from 100% recycled Kraft. It is fully biodegradable and recyclable.
 - Ranpack provides paper converters with no upfront costs to implement. Paper packaging comes with greater operational efficiency and cost savings by reducing materials usage, space, packing time, and damage rates.
- *Bioplastics* — derived from renewable, plant-based materials such as wheat straw and polylactic acid (PLA) that biodegrade much faster and breaks down from heat or light.
 - Storopack manufactures various biodegradable plastic packaging products, including mailer bags, foam and air cushions, and loose fills that can protect Wanderlust + Co’s fragile products.
- *Post-consumer recycled (PCR) resin* — recycled plastic from post-industrial waste.
 - Noissue, a popular custom sustainable packaging manufacturer, provides a range of products made from recycled material. They make their products accessible to small businesses like Wanderlust + Co by offering low order minimums.
- *Compostable material* — sustainable packaging from biological sources and plant fibers such as straw. A pioneering example of this is IKEA; the global leader has invested in mushroom packaging made of mycelium fungus.
 - Sendle, a packaging provider, sells home compostable packaging made from cornstarch and polylactide.
 - The Hemp Plastic Company uses a compostable polymer made of 100% plant-based Polylactic Acid resin with 25% hemp for their products.

To keep up with the latest information on e-commerce packaging, you can join [Packagingdigest.com](https://www.packagingdigest.com) to get newsletters and updates on best practices and competitors in the industry.

Packaging design

Another key aspect of sustainable packaging is the design, which allows for the optimization of resources during the packaging process. In addition to unsustainable material, overpackaging continues to impact production and transportation through overuse of materials and energy (Lu et al.). Many companies are addressing this through consolidated storage to use less space, thus reducing packaging material used and delivery costs; Raylo, a smartphone subscription start-up, altered the design of their box by using lighter material and reconstructing the shape. The redesign resulted in a 21% weight reduction to decrease shipping costs, 11% packaging cost reduction, and 21% less glue used (“Raylo Decreased Packaging Costs”). Simple changes to the production process can have a cumulative effect on environmental impact. For additional resources and information, the Sustainable Packaging Coalition (SPC) is the leading voice on packaging sustainability that has built a coalition hundreds of businesses, government agencies, and educational institutions that offer diverse perspectives across the packaging supply chain. An SPC membership provides the proper guidance, abundant resources and services, and collaboration opportunities necessary for Wanderlust + Co to successfully implement sustainable packaging.

Sustainable last-mile delivery

You mentioned your desire to make a lasting impact on reducing Wanderlust + Co’s carbon footprint, so I would like to draw your attention to the final stage of the supply chain process: last-mile delivery. Parcel delivery transportation proves to be the most environmentally damaging stage, increasing the number of delivery vehicles in the world’s top 100 cities by 36% (World Economic Forum). In fact, delivery traffic is estimated to contribute to 32% of the increase in carbon dioxide over the next 10 years (World Economic Forum). Looking beyond packaging innovations to larger B2C sustainability practices, leading e-commerce businesses are investing in less traditional distribution strategies that are viable options for Wanderlust + Co.

Green vehicles

Among the trend towards sustainable alternatives to last-mile deliveries, electric vehicles are changing the delivery landscape as major carriers have begun to electrify their local delivery fleets. Technology is now accessible enough for EV’s to truly compete with and slowly replace fossil-fueled ones. This can be reflected in a number of major company investments: Amazon ordered 100,000 electric delivery vans in 2019 expected to all be on the road by 2024 (Hawkins). FedEx has also committed to sustainable delivery by expanding its fleet to add 1,000 electric vehicles from Chanje Energy Inc (“Fedex Acquires Chanje”), and UPS bought 10,000 electric delivery trucks from Arrival (Peters, 2020). The future of local, last-mile delivery is electric. Additionally, FedEx, UPS, and USPS all offer eco-friendly programs should Wanderlust + Co decide to go electric. In terms of product availability, manufacturers are increasingly entering the local delivery market segment through EV production. General Motors announced their new business, BrightDrop, that will provide an ecosystem of electric first-to-last-mile vehicles, software, and services. (“GM Launches BrightDrop”). Although shifting to EV delivery is long-term endeavor, with more electric truck options entering the market, local delivery fleets in the U.S. will soon have no problem adopting EV’s, making them accessible to small businesses like Wanderlust + Co.

Local depot

In the move to eco-friendly shipping methods, incorporating alternative places of delivery over traditional home delivery has become a promising method to reduce one's carbon footprint through route optimization. By offering shoppers additional delivery options such as pick-up points or parcel locker locations, you can streamline last-mile delivery routes, significantly reducing the travel time of freight vehicles and therefore greenhouse gas emissions (Edwards et al.). Additionally, directly shipping to parcel lockers improves first attempt delivery rates, thus eliminating the extra carbon emissions and external costs of split shipments and re-attempts for failed deliveries. From an economic standpoint, customer self-pickup is also highly cost-efficient; compared to regular home delivery, it reduces transportation costs by 55-66% (Deutsch and Golany). Logistic companies have realized the environmental and economic incentives of self-pickup systems, which is why we are seeing companies like Amazon and DHL going great lengths to implement parcel locker networks throughout the West.

Consumer incentive: flexible delivery times

The e-commerce industry's arms race to have the shortest delivery times damages the environment in many ways: multi-item orders often lead to multiple independent deliveries and more underutilized vehicles on the road with more trips and stops per route. Optimizing speed over consolidation renders a greater environmental footprint. Longer delivery times would allow Wanderlust + Co to increase delivery vehicle utilization, and there are ways to achieve this while still satisfying your goal of meeting consumer demand. Offering greener delivery choices — through dynamic pricing or sustainability messaging — can help Wanderlust + Co reduce carbon emissions and compensate for customer expectations about fast delivery and product variety.

One option is to incentivize greener purchases through **dynamic pricing**: lower prices for more eco-friendly but slower delivery options. According to Bain & Company, shipping two items together rather than separately produces 35% less per-item emissions and reduces shipping costs by over 50% (Cheris et al.). You can avoid split shipments and limit packaging by encouraging customers to consolidate their items into one order, offering discounts or store credit for slower shipping or those who buy multiple items. Aside from Amazon's consolidated packaging system, Jet.com has a Smart Cart that modifies prices in real time for items that would ship together. Not only does this method decrease packaging waste, but it also promotes more purchases, increasing Jet.com's average basket size to almost seven (Cheris et al.). In addition to consolidated packaging, you can decrease emissions from delivery travel time by offering lower prices for time windows that maximize the vehicle's delivery route. Olive, a service that delivers packages for retailers, schedules weekly, rather than daily, deliveries that allows them to aggregate orders and ship them together from a centralized location, reducing transport emissions and packaging waste (Olive).

Sustainability messaging is another approach that builds off of the rise in green consumerism among today's shoppers by prompting them with information at the point of purchase about the environmental footprint of different delivery options. The Green Button Project, a part of the Sustainable Logistics Initiative at MIT, found that when provided with an environmental incentive, 40% of consumers are willing to wait on average four days longer for home deliveries. (Fu and Saito). They performed a field test on Coppel, one of Mexico's largest retail companies, based on this four-day lead time; vehicle utilization increased from 49% to 57% and 10,631kg of CO2 equivalent was saved. A strategic lesson Wanderlust + Co can take from this research is that implementing a

flexible distribution system that offers extended delivery times depending on consumer preference would allow Wanderlust + Co to combine demand, travel distance, and delivery time to maximize vehicle utilization while also meeting service targets. Consumers are willing to choose green over faster delivery options when presented with environmental incentive, and such a brand-enhancing initiative can differentiate Wanderlust + Co from other fashion e-commerce retailers.

Next steps

Whether it's a sustainability approach through flexible delivery times, consolidated shipments, eco-friendly packaging, electric vehicle delivery, or carbon offset shipping, Wanderlust + Co can reduce its environmental footprint while also appealing to consumer demand. Here are a few recommendations for you going forward:

- Decide which direction you want to take your company. This may include conducting cost benefit analyses, evaluating long-term goals, and mapping the value chain.
- Consult with stakeholders and external experts to identify Wanderlust + Co's current and potential impact across sustainability goals
- Establish a cross-functional sustainability council, bringing representatives from across supply chain, operations, customer experience, technology, finance, and more.

At Bain & Company, we work with leading companies to integrate sustainability into their operations and core strategies for success in the long-term. Regardless of which avenue you decide to pursue, we welcome the opportunity to continue this conversation and support Wanderlust + Co's next wave of growth.

Thank you again for choosing to work with Kurohara Consulting Co. I look forward to hearing from you.

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