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ENVIRONMENTAL IMPACTS OF FAST FURNITURE

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EXECUTIVE SUMMARY

Sustainability in the furniture industry is sparse due to the popularity of fast furniture pieces produced overseas and sold in U.S. stores. Made from cheap materials, these products are convenient to order online, but are not made to last. Production of these furniture pieces has dramatically increased in recent years due to faster-paced lifestyles and nomadic living trends of younger generations.

However, these trends are detrimental to the health of the planet, using materials like particleboard and laminate that are not sustainable, shipping from foreign countries contributing to the ocean's decline, and contributing to deforestation and an increase in landfill waste.

In looking at this information, it became apparent that there are countless ways for fast furniture brands to do better. These include:



1. Providing radical transparency about the products being sold to consumers
2. Becoming an active member of the circular economy
3. Normalizing making extra parts for the ease of at-home furniture repair
4. Creating partnerships with nonprofits and thrift stores

The fast furniture industry needs to shift its practices for the sake of saving the planet and slowing down climate change. Adjusting practices to become more sustainability helps the brand gain a better reputation, as well as helping the environment.

PROBLEM STATEMENT

When we think about sustainability, many immediately think about plastic consumption and fast fashion, but we often forget about furniture trends and the rate in which furniture is dumped in landfills. According to the Environmental Protection Agency (EPA) (2018), nearly 10 million tons of furniture was disposed of in landfills in 2018, up from 8.9 million tons in 2010. Only a small portion of furniture is recovered from landfills to be recycled.

From a brand responsibility standpoint, many people representing the Millennial and Gen Z generations are becoming increasingly concerned about making responsible consumer choices (Schaverien, 2018). This includes purchasing from companies that actively work toward a more sustainable future. The bottom line is that brands who care about sustainability get a double benefit: a healthier planet and a better consumer reputation.

This white paper will address the problem with the lack of sustainability in the furniture industry. For the purposes of this report, the definition of “furniture” includes tables, chairs, mattresses, and sofas, as defined by the EPA. By learning more about the impact of this industry, brands can be held accountable for the furniture that are going into the wastestream each year and begin to adjust their sustainable business practices to join the fight against climate change.



BACKGROUND

History

In 1960, only approximately 2 million tons of furniture was generated in the U.S. By 1980, this number had doubled, and by 2018, the U.S. had increased their furniture production to over 12 million tons (Environmental Protection Agency, 2020). The increase in furniture production has far exceeded the country's population growth. While some furniture brands are focusing their efforts on sustainability, a vast majority are not, creating a trend similar to the fast-fashion movement we see taking place in the apparel industry.

Not very long ago, consumers bought furniture to last a lifetime. Pieces were so long-lasting that they often could be passed from generation to generation. If furniture needed to be fixed, reupholstered, or revarnished, people would simply take care of it as opposed to leaving it on the curb to be transported to a landfill. These hearty pieces were often produced domestically, which was reflected in the quality of materials and techniques used to make the items (Cummins, 2020). The quality of these items was desirable enough to put in the time for restoration and pass along for generations to come.

1960–2018 Data on Furniture and Furnishings in MSW by Weight (in thousands of U.S. tons)

Management Pathway	1960	1970	1980	1990	2000	2005	2010	2015	2017	2018
Generated	2,150	2,830	4,760	6,790	8,120	9,340	10,820	12,050	12,210	12,080
Recycled	-	-	-	-	-	-	10	10	40	40
Composted	-	-	-	-	-	-	-	-	-	-
Combustion with Energy Recovery	-	-	90	1,150	1,570	1,700	1,910	2,350	2,380	2,360
Landfilled	2,150	2,830	4,670	5,640	6,550	7,640	8,900	9,690	9,790	9,680

Sources: Department of Commerce, International Sleep Products Association and Mattress Recycling Council.

Retrieved from: Environmental Protection Agency, 2020

BACKGROUND

Why is "Fast Furniture" Desirable?

Society has since moved to a faster-paced lifestyle with no time for DIY projects. Consumers want convenience, not a hard search for furniture. Companies like Wayfair and Ikea make it easy to order trendy furniture at the click of a computer mouse without having to dig through antique shops and thrift stores for the exact item consumers are looking for.

Additionally, affordability and accessibility to sustainable furniture is hard to find. Many furniture companies who make sustainable pieces are out of budget for the average american. Meanwhile, fast furniture brands are dropping prices considerably because they're able to use cheaper materials and pay lower wages for foreign production, usually taking place in China. This means that consumers who cannot afford a \$1,000 couch can find an option that is affordable and trendy, though not usually sustainable.

Those interested in furniture trends also turn to fast furniture brands because it is an easy and affordable way to stay up to date on what's hot. In the past few years, it has become the norm to cycle out furniture based on what's in style instead of collecting timeless pieces that are less likely to end up in a landfill. Brands that produce fast furniture are putting out products rapidly to keep up with what's trending, making it easily accessible for those seeking something to update their home decor.

Many consumers look to update their decor when they move from place to place. Millennials are prone to relocation, oftentimes leading them to throwing away furniture instead of paying to move it because a lot of fast furniture items cannot withstand a move to begin with (Bischof, 2019). Fast furniture pieces are cheap and typically not worth seeing what could happen to them in a moving truck.



BACKGROUND

Why is Fast Furniture Bad?

Companies use lightweight materials like particleboard and laminate, which are not good for the planet.

Using lightweight materials reduces shipping costs for fast furniture companies, however it has a lasting impact on the environment. Particleboard is made from pressed wood chips or jute-stick chips with a synthetic resin or other similar bonders. Because of this, it requires high energy to manufacture, and the dust from working with some of the resins used in particleboard can be carcinogenic and create respiratory issues for those working with it (Sustainability and Particle board, 2014). Additionally, particleboard is damaged very easily and cannot be sanded and repainted in the same way that solid



timber can. If exposed to moisture, this material is prone to swelling and rotting, which makes it a difficult material for reuse and recycling (Bischof, 2019).

Laminate is also known for splitting apart and peeling away. Items made from these materials aren't likely to last more than a few years, especially if they need to be reassembled after a move.

Shipping from foreign countries significantly increases furniture's carbon footprint.

The fuel used to power cargo ships often emits sulfur and nitrogen oxides, particular matter, and carbon dioxide. While these vessels are considered fuel efficient, 80 percent of ships use heavy fuel oil, which has a higher carbon output (Environmental Impact of Maritime Freight, 2019). Cargo ships are additionally known to discharge harmful components into our oceans, decreasing water quality, negatively impacting ocean life, and increasing public health risks.

In 2019, carbon emissions from shipping made up three percent of total greenhouse gas emissions, and are projected to increase to 20% of total global emissions by 2050 if more policies are not put into place (Environmental Impact of Maritime Freight, 2019).

Fast furniture contributes to overseas deforestation.

Deforestation is the second leading cause of climate change, only after the burning of fossil fuels (Forests and Climate Change, 2021). Forests help regulate ecosystems, protect biodiversity, and so much more, but the impacts of deforestation are keeping forests from combating climate change.

Forests are one of the most important parts of fighting climate change. Studies show that approximately 2.5 billion tons (one-third of CO₂ released from burning fossil fuels) is absorbed by forests each year (Forests and Climate Change, 2021). The production of fast furniture is detrimental to this data, as it harms the health of some of the world's largest forests.

Many fast furniture products are made in China, and China sources timber from Central Africa. The sourcing of these materials has been proven to impact the health of forestry in this region. Because of the high demand of American consumers, Chinese companies are needing to extract more lumber from Central Africa than ever before (Cannon, 2018).

Additionally, a study conducted by the World Wildlife Fund in 2016 reported that 68 percent of retailers selling fast furniture are failing to put timber sourcing policies in place in order to protect forests and provide transparency to consumers (Usborne, 2020).

Fast furniture is overproduced, contributing to the amount of furniture waste dumped in landfills annually.

Of all household items, furniture is the least-recycled and the second largest portion of urban waste. Because of the cheap materials used to make these items, they are not meant to last. Their limited life span means increased consumption for replacing furniture items and increased waste in landfills (How Fast Furniture Affects the Environment, 2020). In fact, most of the furniture currently taking up space in landfills was made within the last 10-15 years (Berg, 2021).

An example of this overproduction can be seen in Ikea's production of their "Billy" bookcase. It has been found that a Billy bookcase is made every three seconds (Usborne, 2020). This product is made of particleboard and other non-recyclable materials. While Ikea says they are committed to using more renewable materials that can be repurposed and recycled by 2030, the overproduction of items like this bookshelf contribute to deforestation, the impacts of shipping, and increased landfill waste.

Fast furniture production is often tied to unethical treatment of production employees.

As discussed previously, many fast furniture items are produced in foreign countries. This means that companies making these items have different employee ethics that allow for lower pay for relatively high-risk jobs (Cummins, 2020). Those working in this industry are often exposed to harmful sawdust and carcinogens released from the materials used to create fast furniture items.

RECOMMENDATIONS

Identifying the key issues within the fast furniture industry is of first and foremost importance. From there, furniture brands can begin to think about how to decrease their impact on the planet and its resources. From a brand responsibility standpoint, there are many resources available to help brands become greener for the sake of the planet and their consumer base. This next section includes some recommendations for furniture brands to take into account when adjusting their sustainability practices.



1 Radical Transparency

Brands can build trust from consumers by using radical transparency in their business practices. While this is not an easy choice to make because it can be risky, it is often the right choice for the sake of brand authenticity. It's important to recognize that brands who participate in radical transparency cannot pick and choose what it wants to be transparent about (Mathew, 2020).

From the perspective of fast furniture, being radically transparent should include informing consumers about the lifespan of the products they are purchasing, and the materials they are made out of that may or may not be sustainable.

According to Mathew (2020), there are four ways to begin to think about implementing radical transparency:

1. Know your consumer: Knowing what a brand's consumer base values most helps navigate the challenges that can come with radical transparency.
2. Plan for risk: Radical transparency means an increased risk of consumer opinions and backlash. Having a risk management plan can help in responding to these issues.
3. Embrace accountability: Taking ownership for actions or inactions can build trust with consumers and allow for problems to be resolved faster.
4. Up your communication: The more open a brand is about their flaws, the more the brand will need to share with consumers. Managing consumer reactions is part of this.

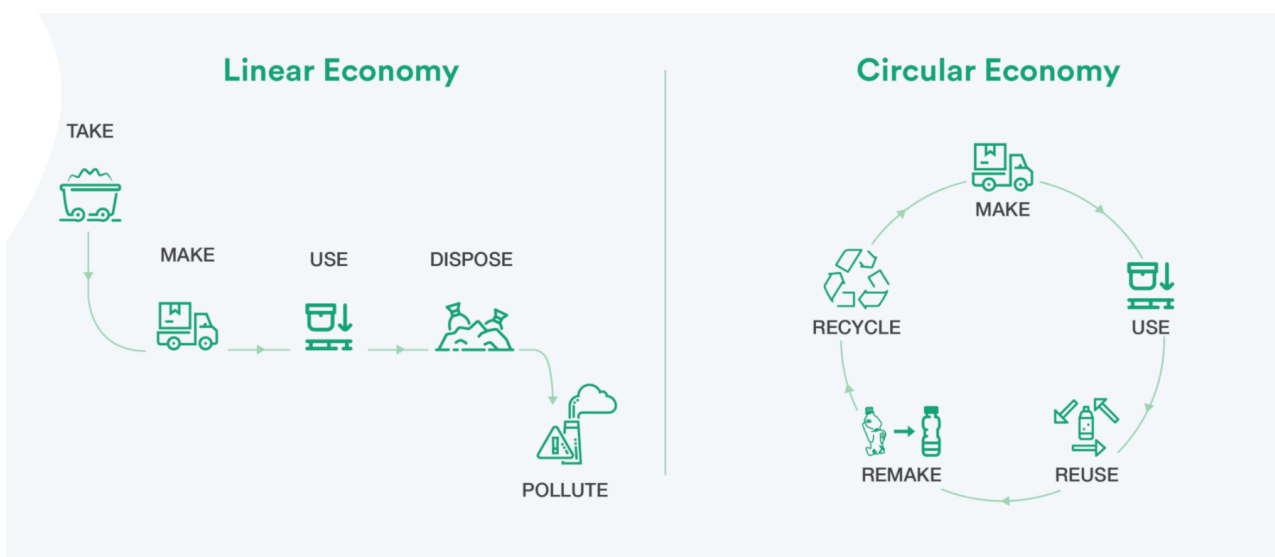
2 Circular Economy

The circular economy is not a new idea, but it is one that can truly make an impact on climate change. It is a different way of thinking about the way brands produce and people consume. The circular economy suggests that instead of a linear method of production (take, make, use, dispose pollute), the method should be circular (make, use, reuse, remake, recycle, repeat). This method creates products that last, while eliminating waste and pollution and regenerating natural systems that help improve the state of the environment (Schindler, 2021).

The circular economy method comes with many advantages, including a reduction in global CO2 emissions, job creation, material cost savings, economic growth, and groundbreaking innovation (Schindler, 2021). Brands can benefit greatly from adopting this model in terms of improving brand reputation and recognition.

According to RTS (2019), there are seven principles of a circular economy:

1. Zero Waste: A true circular economy should achieve zero waste.
2. Biological or Technical Cycles: Materials used should be biodegradable or recyclable/reusable.
3. Design for the Future: Products should be designed to last and easily repairable.
4. Sustainable Energy: Products should be made with renewable energy sources.
5. Consumers vs. Users: Products should be thought of as "leased" instead of "sold".
6. Regenerating Natural Systems: Focus on regenerating systems that have been depleted.
7. Preserve What's Already Made: The life of products in existence should become a part of the circular economy.



Retrieved from: Recycle Track Systems, 2019

3

At-Home Repair Tactics

When thinking about the 9.8 million tons of furniture that got thrown in a landfill in 2018 (Environmental Protection Agency, 2020), it's worth exploring how much of said furniture could have been easily repaired if brands provided an easy way to order extra parts when something breaks.

Many furniture brands create products that are not easily repairable and lines of production do not take into account the need for excess parts and pieces that may be valuable for at-home repairs. For instance, a table leg could get broken and most consumers would end up throwing away the product. However, if brands made it easier to order parts for furniture pieces, it would save the consumer money and promote the circular economy model (see below).

4

Partnerships

Throughout the U.S., there are a multitude of nonprofits and nonprofit thrift stores that do great things for communities. Furniture brands have opportunities to create many different kinds of partnerships with them.

For example, Ikea and Goodwill partnered in 2017 to create a "furniture take back" event. At this event, customers could come to the parking lot of Ikea to donate used furniture to a Goodwill truck. In exchange, Ikea gave donors a coupon to use in-stores. The collaboration between Goodwill and Ikea fulfilled Goodwill's mission of providing environmentally responsible solutions for unwanted items, as well as giving Ikea a chance to run programming at their stores surrounding benefits of biking, and other educational activities about sustainability (IKEA and Goodwill, 2017).

Additionally, brands can create unique partnerships based on the mission, vision, and values of the company. Some other ideas include agreements to ship excess furniture from warehouses to thrift stores, donating excess items to low-income folks moving into permanent housing, or donating excess office furniture to nonprofit organizations.

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