



## ***SDG 12: Responsible Consumption and Production - Supply Chain Transparency & Sustainability***

<b>Topic Overview</b>	<b>Learning Objectives</b>
What is supply chain transparency? <ul style="list-style-type: none"> <li>• Two types of transparency: visibility and disclosure</li> <li>• Use of block chain and technology</li> <li>• Sustainable supply chains</li> <li>• Best practices and steps for improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Understand how technology plays a role in the future of supply chain sustainability.</li> <li>• Identify the steps to take to improve supply chain transparency.</li> <li>• Analyze the costs and benefits of supply chain transparency.</li> <li>• Describe the different types of transparency.</li> </ul>
<b>Resource Summary</b>	
<p>Mutz, M. (2019, September). <i>How supply chain transparency can help the planet</i> [Video]. TED Institute. <a href="https://bit.ly/3dQq1iM">https://bit.ly/3dQq1iM</a></p> <p><u>Summary:</u> Markus Mutz discusses how blockchain technology can be used to track goods from extraction to consumption. The video covers transparent supply chains and how technology is used to create trusty worthy products for consumers.</p>	
<p>Harbert, T. (2020, February 20). <i>Supply chain transparency, explained</i>. MIT Sloan. <a href="https://mitsloan.mit.edu/ideas-made-to-matter/supply-chain-transparency-explained">https://mitsloan.mit.edu/ideas-made-to-matter/supply-chain-transparency-explained</a></p> <p><u>Summary:</u> This article provides a comprehensive overview of supply chain transparency, defining the two types of transparency: visibility and disclosure. The article covers disclosure decisions, costs and benefits, and why consumers care.</p>	
<p>Bateman, A. &amp; Bonanni, L. (2019, October 11). <i>What Supply Chain Transparency Really Means</i>. Harvard Business Review. <a href="https://hbr.org/2019/08/what-supply-chain-transparency-really-means">https://hbr.org/2019/08/what-supply-chain-transparency-really-means</a></p> <p><u>Summary:</u> This article defines supply chain transparency and provides metrics on how to measure transparency. After determining a company’s transparency, the authors provide steps to take to move the organization up the scale through increasing transparency.</p>	
<b>Discussion and Exam Questions</b>	
<ol style="list-style-type: none"> <li>1. Discuss the challenges of transparency in a global supply chain.               <ul style="list-style-type: none"> <li>- Multiple suppliers with operations around the world (impossible to inspect them all)</li> <li>- Complying with ISO standards is time consuming and expensive</li> <li>- Laws vary across countries and even within countries</li> <li>- Quality varies across countries</li> </ul> </li> <li>2. What can businesses do to increase the transparency of their supply chains?               <ul style="list-style-type: none"> <li>- Require ISO certification or other industry standard certification</li> <li>- Conduct reviews of suppliers</li> <li>- Require suppliers to disclose sources for materials</li> </ul> </li> </ol>	



3. Discuss how COVID-19 has affected the need for supply chain transparency.
  - Understand where your products are manufactured and how they are shipped to you
  - Evaluate the domestic production situation
  - Realize how a sick workforce impacts production
  - Design a production facility that minimizes the spread of disease

**Additional Resources**

*Making traceable wool a reality.* (n.d.). Fjall Raven. <https://foxtrail.fjallraven.com/articles/making-traceable-wool-a-reality/>

Summary: a good example of responsible supply chain management. Fjall Raven discusses how they source sustainable wool for their products.

Gioia, D. A. & Villena V. H. (2020). A More Sustainable Supply Chain. Harvard Business Review. March - April, 2020 Issue. <https://hbr.org/2020/03/a-more-sustainable-supply-chain>

Summary: This article outlines the importance of MNC’s focusing on the lower tier suppliers of their supply chain, and how to manage the sustainability associated with them. The authors describe how the trickle down effect of strict sustainability policies is ineffective for the lower-tier suppliers, and offers alternative solutions and best practices.

Tyler, O. (2017, December). *The Complex Path to Sustainability* [Video]. TED Institute.

[https://www.ted.com/talks/olivia\\_tyler\\_the\\_complex\\_path\\_to\\_sustainability](https://www.ted.com/talks/olivia_tyler_the_complex_path_to_sustainability)

Summary: Olivia Tyler discusses blockchain and technology usage to increase supply chain transparency.

*A Guide to Traceability: A Practical Approach to Advance Sustainability in Global Supply Chains.* (2014).UN Global Compact & BSR.

[https://d306pr3pise04h.cloudfront.net/docs/issues\\_doc%2Fsupply\\_chain%2FTraceability%2FGuide\\_to\\_Traceability.pdf](https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2Fsupply_chain%2FTraceability%2FGuide_to_Traceability.pdf)

Industry Example: [Wholechain](#)

A block chain based traceability system for supply chain transparency.

**Related Business Topics**

- Operations management
- Supply chain management
- Management information systems
- Innovative technology

**Related Sustainable Development Goal Targets**

[SDG 12: Ensure sustainable consumption and production patterns](#)

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources



12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.A Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

### **Suggested In-Class Activities**

Break the students into groups, and assign each group an item from the list of every day items. Students will fill in the worksheet with information found on their item. See below for fields to be answered by each group:

Worksheet: (this could also be presented on a slide or a Google Jamboard)

- Item name:
- Starting ingredient:
- Additional ingredients:
- Location from which the ingredients are sourced:
- Location of production facility (if different from above):
- Labour practices for harvest and processing:
- Transportation type, route and distance to your location (retail sales location):

#### Everyday Items:

- Cotton T-Shirt
- Water Bottle
- Glass on an iPhone
- Styrofoam Food Takeout Box
- Pizza Box
- Coffee Beans
- Pencil Eraser

After the groups have filled in their worksheet, one person from each group will share their results. After each group has shared, have a short discussion about their findings.

- Which items travelled the furthest? What is the impact of that distance and transportation method?
- Which items had the most ingredients? What is the impact of more ingredients on a product or on the environment?
- Are there better and worse options for ingredients (organic cotton for t-shirts, recycled paper for pizza boxes)?
- What is the end of life fate for each item?