Will 3D Printing Become The New Fast Fashion?

Published 7/29/2023 by Anitta Toma

Miwa Anbe is a student in the Supply Chain Management - Global Logistics program. In this blog entry, she brings awareness to the positives and negatives of the rising use of 3D printing.

Initially, the technology of 3D printers was developed with the aim of building prototypes for industry. Currently, there are companies specializing in 3D printing and several large industries have already incorporated these tools into their production process. It appears that this market will continue to grow in the coming years, as this technology becomes increasingly more accessible.

From a supply chain perspective, 3D printing can be considered disruptive since it significantly reduces the need for transport. As products can be printed anywhere, it reduces the need and dependence on transport in general, whether by sea, road, air, or rail. There is also concern about intellectual property and regulations. Since it is a relatively new technology, some regulations about its use are still in progress.

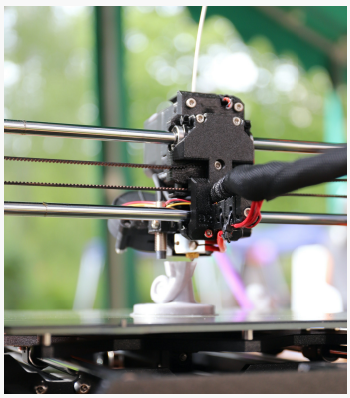

Photo by Lucie Siegelsteinová

From an environmental standpoint, however, this new technology creates a vast opportunity. As per the point above, it reduces the need for transportation, reducing the vehicles required and pollutants emitted.

Other competitive advantages that 3D printers create from a supply chain perspective include print on demand, reducing material waste; reducing delivery time, as the printing can be done close to the customer; no need to keep stock inventory; customized products; lighter and more resistant items; and less returns (reverse logistics), due to the customization and high precision of printers.

Image by Julius Silver from Pixabay

Within the aspect of sustainability, the biggest concern is with the control and type of material that is being used to print the products. As mentioned, the market for 3D printers is continuing to grow, therefore, it is crucial that this market does not follow the apparel industry with its boom of fast fashion, in which easy access encouraged uncontrolled production based on use, consumption, and disposal, causing a linear economy.

It is necessary to evaluate the complete cycle of the products printed by 3D machines, considering economic, environmental, and social aspects, and creating regulations to implement circularity all through the value chain. In this way, we can create a lasting and truly sustainable solution.

Miwa Anbe

Supply Chain Management - Global Logistics

tags : prme, prme-blog-new