

# TRANSFORMING THE FUTURE OF SUPPLY CHAINS THROUGH DISRUPTIVE INNOVATION

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3D printing has evolved lately, AM or Additive manufacturing is the umbrella term for technologies that fabricate products by building up thin layers of materials from three-dimensional, which builds objects on a printer machine. Now it is being used to create product prototypes and to manufacture certain specialized items. The idea is to connect networks of 3D printers to build large assemblies without the need for printers that are equivalent in size. The machines could be reconfigured to construct other products. Also, this technology will have a good benefits for the environment, because additive fabrication is less wasteful than traditional production processes, it reduces carbon footprints.

The Technology will impact the supply chain methods significantly, because clients will find it much easier and more cost-effective to make customized items in limited quantities and the ability to respond rapidly to shifts in market demand and to introduce new products.

What could be the impact of the 3D technology in the supply chain?

3D printer could be installed whenever the clients needed without low cost of human resources and the products could be produce in less time in all countries which it will decrease the lead time of deliveries that already exist due to the manufacturers' installations in China, India or Thailand with approximately shipping time of 20 to 40 days.

One important issue to consider is the risk for the air, maritime or land transport of the supply chain, because could be extremely affected due to the decrease products' production that have to be deliver from one country to another one; also some logistics Hub as Panama, Singapur or Hong Kong.

Forwarders, Courier, logistics Hubs and all logistics companies will have to design a new strategy based on this future changes to be prepared and change their supply chain and recognize all the opportunities that they will be able to get. Also these companies must consider this technology and follow the future one, in order to adapt their business to the new changes, such as 3D technology that has the potential to spark a new industrial revolution, where established methods for making and delivering products are largely obsolete.

One interesting vision would be if the 3PL logistics companies have their installation as a hub where products are made, assembled, and distributed. This would be such a huge impact in the supply chain because these companies will include a new type of business as the manufacturers of many products for different clients; one important issue would be the reduce of inventory and more effective forecast, because it will produce products only the quantity needed in a period of time that will be distributed as soon as the product is ready to be shipped. However, some manufacturers companies could be replaced by this new trend in the upcoming future.