

From factory to customer: how supply chains work



Javy Sports' showroom in Singapore. The humble hula hoop is one of the many sports and exercise products that it sells.

[Photos: Javy Sports, Pixnio / Amanda Mills.]

The COVID-19 outbreak has affected supply chains. This means some items are taking longer to be produced and delivered to customers. ANNABELLE LIANG explains.

Many schools use hula hoops during physical education lessons. A hula hoop can be swung around the waist, or used as an obstacle for games.

It is one of the simplest objects you can imagine. But, a lot of work goes into making it, according to Jeremy Ko.

Mr Ko is the co-founder of Javy Sports, which sells hula hoops and other sporting equipment in Singapore. The hula hoops are of three sizes. They come in four colours — red, blue, yellow, and green. Customers pay between \$4 and \$5 for each hula hoop, depending on its size.

Although the hula hoop is such a simple thing, its “supply chain” is quite complicated. A supply chain is made up of all the steps it takes to get something made and then delivered to the user. It involves raw materials, factories, shops, vehicles, and many different jobs.

You will hear adults talking about supply chains more than usual these days. This is because the COVID-19 pandemic affects many supply chains. Sometimes, the results are quite unexpected, like how supermarkets suddenly run out of toilet paper!

Hula hoops made in India

To understand supply chains better, we asked Mr Ko to explain how hula hoops reach schools in Singapore.

To keep costs low, hula hoops sold in Singapore are made overseas, he said. In this instance, they are made in India.

“When it comes to Singapore, all we do is unload the shipment, put it in a warehouse, and send it to customers,” Mr Ko said. “We want to reduce the work done in Singapore, mainly because the monthly wage in India is US\$200 (S\$280). My warehouse workers in Singapore are paid US\$1,000 (S\$1,400),” he said. Therefore, the amount paid to workers would be around five times more if the products were made in Singapore. This would make the hula hoops more expensive.



In India: Plastic pellets arrive in a factory in India in 100kg sacks (left). The pellets will be melted and moulded to form hula hoops. These are packed by workers (right) for transport by road and ship. [Photos: Jeremy Ko]

The journey starts in Meerut, a city in the Indian state of Uttar Pradesh. There, a factory produces hula hoops and other sporting equipment. It takes orders from businesses like Javy Sports via WhatsApp.

Hula hoops are made from plastic pellets. These pellets arrive in 100kg sacks that are sorted by colour. They are melted and moulded into pipes. Factory workers bend the pipes into perfect circles while they are still hot. Then, the ends are joined to form a hula hoop. The hoops are cooled. Finally, the Javy Sports logo is placed on them.

“This is simply a transparent sticker that is stuck on,” Mr Ko said. “Because the hula hoop is such a cheap item, it doesn't make sense to have an additional printing process.” The logo is printed on costlier items such as sports balls and cones, he said.

Ready for shipping

Next, the hula hoops are packed for transport. The factory usually puts hula hoops in boxes, according to size. Small hula hoops are placed together. The same goes with medium and large hula hoops. But, this means a lot of space is wasted. As a result, fewer goods can be transported in a large shipping container. So, Javy Sports requested that boxes be filled with all sizes of hula hoops.

When a small hoop is placed inside a medium hoop, and the two placed within a large hoop, they take one-third the space as stacking three hoops of the same size one on top of the other.

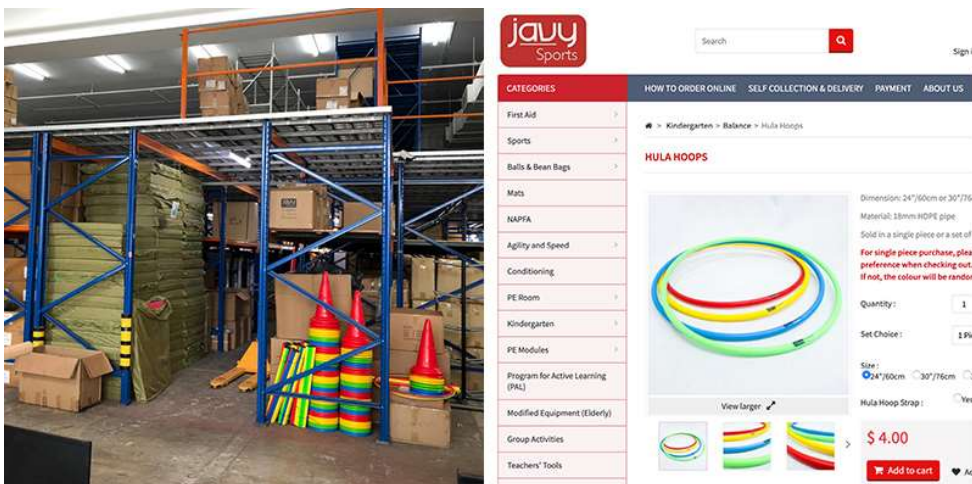
“Our warehouse workers in Singapore who have some spare time will sort them into individual boxes. That way, we save on shipping costs because we pack more items in the same shipping container,” explained Mr Ko.

The boxes take as long as 15 days to be transported to a port in Mumbai. Then, they can take another 15 days to arrive in Singapore. According to Mr Ko, it takes around 40 days in all for hula hoops to be ordered, produced, and shipped.

Arrival in Singapore

A driver picks up shipments from the port. Workers then sort the hula hoops by sizes. Now, they are ready to be delivered to customers. Most customers will place their orders online.

“If we have ready stock, they will usually receive their orders in three to five working days,” Mr Ko said. “With the coronavirus, we might take a little bit longer,” he cautioned. This is due to increased demand for other sporting equipment such as dumbbells.



In Singapore: Sport equipment in the Javy Sports warehouse (left). Right: Most of Javy Sports' sales take place through online orders. Hula hoops bought online do not have to be transported to a shop. They can be sent straight from the warehouse to the buyer. [Photos: Jeremy Ko, javysports.com]

Because of the long process, it is important to order items like hula hoops in advance. Javy Sports keeps a stock of 3,000 hula hoops at a warehouse in Woodlands.

A warehouse is a building for storing things. Warehouses are an important part of the supply chain, allowing companies like Javy Sports to order big quantities of stuff without overcrowding shops, which usually do not have much storage space. The products can be moved to the shops as and when shops run out.

Demand and supply

Hula hoops are used mainly in schools here. The demand for them was lower when schools closed during the circuit breaker. In contrast, dumbbells are flying off the shelves, Mr Ko said.

Most factories that produce dumbbells are based in China. They are made of scrap metal from industrial processes. However, China has been producing less, due to the virus.

“There is much less waste metal to be recycled, while demand has increased significantly,” Mr Ko said. “Because much of world is on lockdown or gyms have closed, everyone wants to exercise at home, even those who usually do not exercise,” he added. “So raw material costs have gone up. Demand has gone up, and the supply is currently unable to keep up with demand in Singapore or around the world.”

When it restocks, Javy Sports buys what would usually be two years' supply of dumbbells. During the circuit breaker, the store's two-year supply was sold in just two weeks.

VOCAB BUILDER

warehouse (say “wair-haus”; noun) = a big building where goods are stored.

pellets (say “pel-lets”; noun) = small hard balls or cylinders.

supply (say “se-ply”; noun) = an amount of something that is available for use.