

Sorting out returns with reusable packaging

The logistics industry has long been trying to find a solution that will free it from the piles of packaging. Large and small companies around the world have invested in different ways that produce reusable bags but the question on how to return them back into the supply chain remains open. For Natasha Abbas, founder of the Norwegian startup Packoorang, returns are what needs to be sorted first before products like this become mainstream.

Abbas started her career as a health worker but most of her experience is in sales and recruitment. She gets the idea about the reusable packaging while observing how people interact with an automated parcel station. Many of them would leave the packaging outside the station near the bins as they wouldn't fit in. "I thought that there must be a better way," Abbas explains.

Production of Packoorang's bags started in April 2020 and it attracted the attention of multiple large Norwegian companies like PostNord, as well as many retail shops. Funding was provided by Innovation Norway.

The network

Local stores are part of the network and are used as hubs where customers can return the bags once they have been used. The startup plans to start using its own electrical vehicles to collect the bags. In the future a mobile app will incentivize customers to return their bags by giving them discounts in local stores. If the bag is not returned during a two week period then customers will have to pay for it.

The packaging is produced in South Asia. The bags are made of polyester and the padding inside, that keeps goods safe, is made out of compressed plastic. Vendors purchase the bags and then use them to ship online orders. End users have the obligation to return the bags to local shops where they can be picked up and used again. Larger couriers have opted in for owning the bags and organising the return

"We tested a lot by dropping perfume bottles from upright and shipping light bulbs."



Natasha Abbas, founder of Packoorang, with one of the bags.

system themselves. There is an interest in creating reusable large boxes that can replace cardboard boxes. Packoorang says its packaging can be reused up to 500 times. Once they have reached the end of their life they can be sent back to the factory and recycled into new bags. "We are working with leading companies in the textile and production industry to reduce CO2 emission," Abbas says.

By using CO2-efficient dyeing methods, recycled plastic, durable fabrics and low emission machinery, the startup is able to produce packaging with an average GHG CO2 emission of 74.51 g/package. In general, a cardboard box with equal weight (600 g) to theirs' will produce up to 195.6 g CO2/package.

As the cardboard fibres can be recycled 25 times and reused 12 times before recycling, a cardboard package has an emission level of 0.65 g CO2/package, only slightly less

than a Packoorang product. Because the package can take up to 500 trips in the mail before it has to be recycled, the potential emission level is as low as 0.15 g CO2/package before recycling. That is a 430% reduction of CO2 emission per package.

Testing phase

The Norwegian startup worked on a few prototypes before choosing what materials to use. "We tested a lot by dropping perfume bottles from upright and shipping light bulbs," Abbas explains. "The more you wrap the bags around the product the larger the padding gets." Packoorang's bag is just enough to protect whatever is in it without the need for additional wrapping. *

Investing in Norway

The Norwegian Government's instrument for innovation and development of Norwegian enterprises and industry has backed Packoorang due to its innovation and global potential for scale and sustainable impact. Innovation Norway provides funding for startups. According to Natasha Abbas the process is streamlined. Entrepreneurs need to provide a business plan to get an initial phase of funding. For startups the local market is open to new ideas and customers are willing to try new things. They have also secured a spot in innovative accelerators and established partnerships with leading companies.