How to efficiently handle e-commerce returns

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Everyone gets an endorphin kick when an online purchase lands on the doorstep, but for various reasons, more and more shoppers are sending their orders back. Returns are one of the biggest issues in e-commerce logistics, incurring time and cost penalties if not effectively dealt with. Despite this large proportion of goods swimming against the flow of the traditional delivery process, companies can use automation to streamline returns, mitigating the impact and winning customer loyalty.

Hans Jongebloed, Innovation Manager at Prime Vision, examines the challenges posed by returns, and explains how computer vision, robots and analytics software can help overcome them.

The return of the thing

Returns have become a key consideration for e-commerce businesses. A leading online shopping platform estimated that the average return rate for online purchases to be between 20 to 30%.[1] However, return rates can fluctuate wildly. In retail for example, one fashion label found that 70% of its orders from women in Germany were returned.[2] During a UK study in 2022, 48% of shoppers surveyed said they returned goods occasionally, 15% most of the time and 8% every time.[3]

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[1] Ecommerce Returns: Expert Guide to Best Practices (2024) - Shopify

[2] E-Commerce Returns: Three Ways to Tackle This Growing Challenge - DHL

[3] Frequency of online shopping returns in the United Kingdom (UK) in 2022 - Statista

The reasons for this are manifold. The item description may not match the product received, or goods can be damaged in transit. Back in retail, visiting physical stores with changing rooms has been increasingly replaced by bulk buying multiple clothes in various sizes online and trying them on at home. Anything that doesn't meet expectation or fit properly is sent back, creating incredibly high volumes of returns. Another special case is after the festive season, when large numbers of unwanted Christmas gifts are returned.

Fielding a return serve

Dealing with a high volume of returns has multiple consequences. Transporting parcels back to a distribution centre is expensive and generates emissions. Once the parcel arrives, special infrastructure is needed to process the items, as most facilities aren't geared for receiving parcels from customers. In fact, many e-commerce businesses are setting up dedicated warehouses just for handling returns. Either approach means a large investment and increased operating expenditure (OPEX).

Another challenge is that the process can't be fully automated. Manual intervention is essential for checking goods and sorting them based on condition - whether that is for resale, recycling or in the worst case, disposal. This makes the process inherently inefficient and time consuming, which has an adverse effect on profitability. However, all is not lost.

Streamlining a manual process with automation

Targeted utilisation of computer vision, robotics and analysis software can help e-commerce businesses streamline returns.

Let's follow the journey of a returned order as it arrives at the warehouse. Most online retailers will provide return labels, so instead of relying on employees to carry out sorting, cameras identifying barcodes and addresses can be used to automatically direct goods to the correct areas. Prime Vision's Barcode Vision and

Text Vision systems with optical character recognition (OCR) make this possible, eliminating human intervention and greatly expediting the process. Object recognition and label reconstruction backed by artificial intelligence (AI) further enhances the proficiency of the system.

With the returned parcel properly identified, robots take over. Autonomous and highly flexible, robots can move the scanned item to any destination within a mapped area of the warehouse. Using information from computer vision and warehouse management systems, robots drive the parcel to an available checking station. As well as using onboard light detection and ranging (LIDAR) for onboard guidance, an overarching fleet management system ensures that robots don't impede each other, further speeding up the process. Versatility is built in - Prime Vision robots can carry a wide range of parcels weighing up to 35 kg.

Once the parcel has arrived at the station, warehouse employees can do the job they are best at: checking the condition of the return and deciding the appropriate course of action. Marking the parcel, it can then be passed onto another robot or fed into a chute, onto the next stage. Analytics software takes an overview of the entire process, delivering data that warehouse operators can use to streamline the system or identify best practices, helping to increase throughput.

Benefits beyond the warehouse

Streamlining the handling of returns reduces OPEX by allowing items to be received, checked and readied for resale, recycling or disposal faster. Furthermore, it stops warehouse staff engaging in labour intensive or unfulfilling work by using robots for carrying parcels and computer vision for boring sorting processes.

However, it has benefits beyond the warehouse, especially with regards to customer retention. In 2022, nearly 80% of US shoppers in a survey stated that a poor return experience would make them less likely to visit the same retailer again.[4] Meanwhile

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[4] E-commerce returns in the United States - statistics & facts - Statista

in the UK, 90% said they'd be more likely to order from a shop that made returns easy.[5] Back across the Atlantic, retailers in the US are responding, with eight in ten already using or planning to use returns processing technology as of 2022.[6]

Ensuring customer service in both directions

Increasingly, a straightforward returns policy is becoming as important as a quick delivery. Customers do not want to pay high fees or wait a long time to receive a refund. Efficiently processing returns means businesses can offer a speedy, low cost or free service to help safeguard customer loyalty. With automation helping to reduce OPEX, this can be achieved without adversely affecting profitability. Ultimately, retaining a customer through a straightforward returns policy is more lucrative than losing them to a frustrating one.

Prime Vision is a global supplier of computer vision systems, robots and analytics software, all of which can be tailored to meet the unique requirements of handling returns. Experienced in working with leading e-commerce businesses, Prime Vision can offer integrated automation solutions to ensure that logistics processes aren't simply one-way, making handling returns a less onerous experience for shops and customers alike.

More from Prime Vision - https://primevision.com/how-to-efficiently-handle-e-commerce-returns/

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[5] eCommerce Returns: Consumer Trends and the Impact on Retailers - whistl

[6] E-commerce returns in the United States - statistics & facts - Statista

Image captions:

Image 1: A leading online shopping platform estimated that the average return rate for online purchases to be between 20 to 30%. (shutterstock_2267932931)

Image 2: Returns are one of the biggest issues in e-commerce logistics, incurring time and cost penalties if not effectively dealt with. (shutterstock_1663645921)
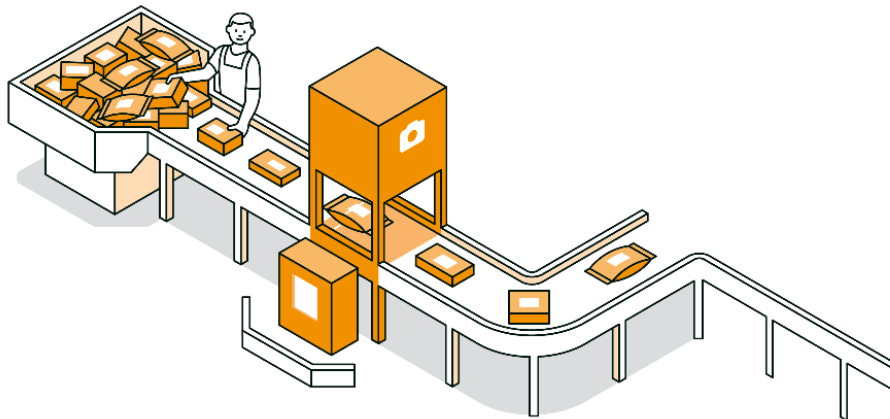
Image 3: Prime Vision is a global supplier of computer vision systems, robots and analytics software, all of which can be tailored to meet the unique requirements of handling returns.

About Prime Vision

Prime Vision is a global leader in computer vision integration and robotics for logistics and e-commerce. As an award-winning company, Prime Vision designs and integrates solutions using the latest recognition, identification, and robotics techniques to optimize the automation of sorting processes.

Headquartered in Delft, The Netherlands, more than 170 experts provide comprehensive market and domain knowledge to digital companies around the world.

For more information, visit https://primevision.com/

Editorial Contact:

DMA Europa: Ollie Eggleton

Tel: +44 (0)1905 917477

Web: news.dmaeuropa.com

Email: press-team@dmaeuropa.com

Address: Progress House, Midland Road, Worcester, Worcestershire, WR5 1AQ, United Kingdom

Reader Contact:

Prime Vision: Ellen Brender à Brandis

Web: https://primevision.com/

Tel.: +31 15 219 2090

Email: info@primevision.com

Address: Olof Palmestraat 10, P.O. Box 6034, 2600 JA Delft, KVK 08068458