

# The History, Evolution, and Future of Reverse Logistics

*Author: Lakshmi Narashimman*

*<https://blog.locus.sh/author/lakshmilocussh/>*

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# Overview

*Retail E-commerce sales in the USA increased by 300 percent between 2009 to 2019. It was \$34 billion in the 1st quarter of 2009. In the first quarter of 2020, it rose to \$160.33 billion USD.- Statista report on Retail E-commerce sales.*

The Covid-19 outbreak has resulted in a significant growth for E-commerce businesses and this has in turn resulted in an increased focus on reverse logistics. All this heightened action has forced businesses to restructure their supply chain to cater to the increased demand.

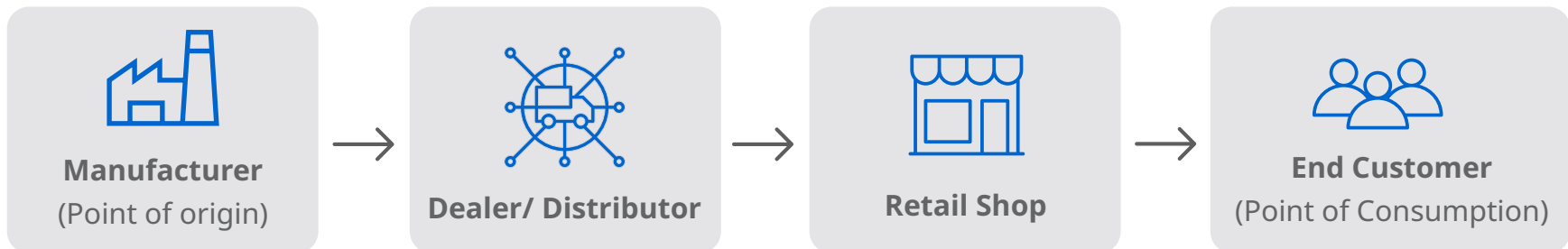
*“Three-fourth of US companies have seen their supply chains significantly affected by Coronavirus pandemic”.- Hitendra Chaturvedi, Logistics Expert, and Professor at W.P Carey School of Business at Arizona State University.*



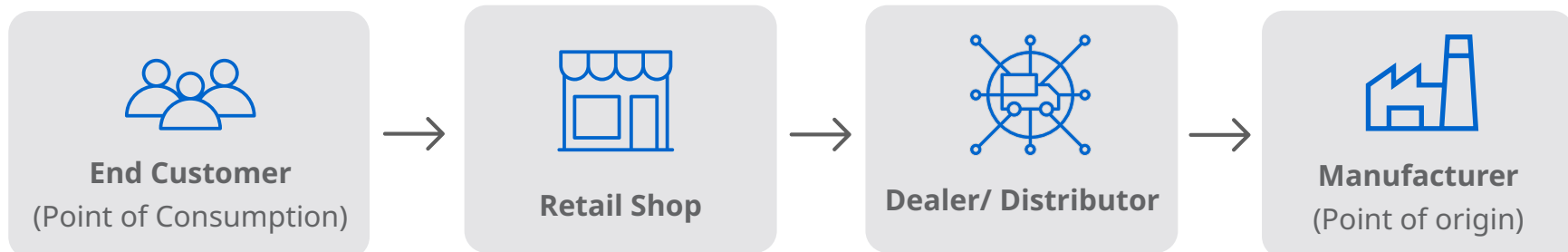
# What is reverse logistics?

*US E-commerce returns will increase at CAGR of 14% between 2018 and 2023, surpassing \$300 million.- Business Insider Intelligence.*

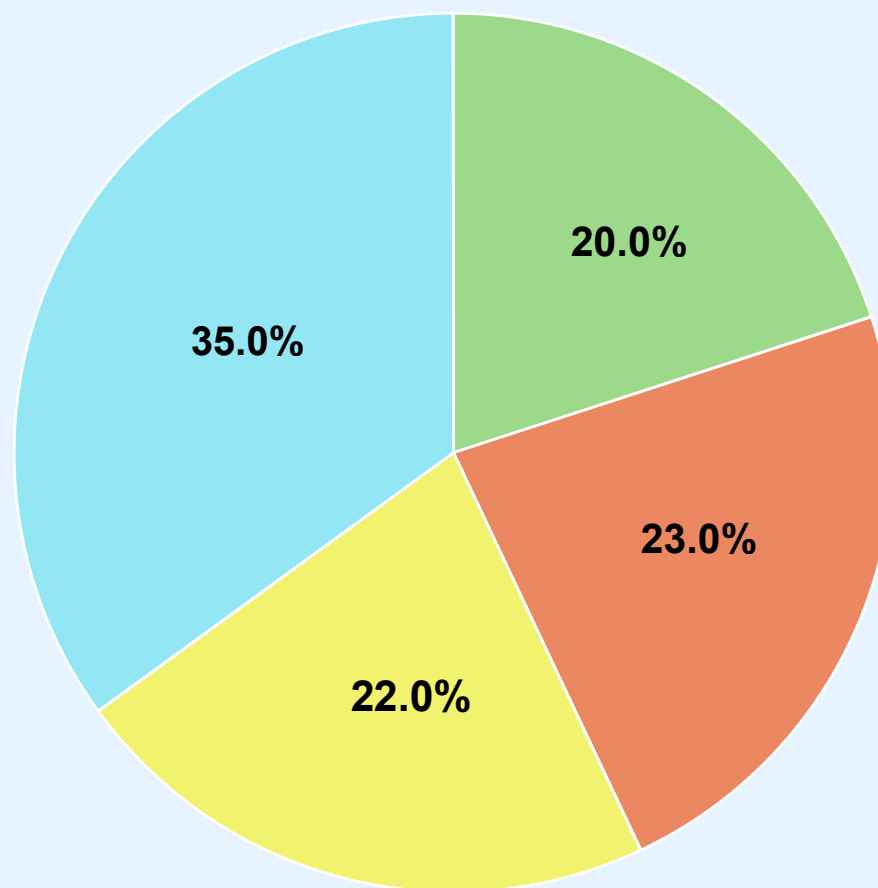
Logistics deals with the flow of products and materials from the point of origin to consumption.





The term reverse logistics was first used in the 1990s and then refined through the decade. After three decades, this term is firmly entrenched in the supply chain world. It means the movement of goods from a typical final destination back into the supply chain. The management or process after the sale of a product involves reverse logistics.



The common reasons for returns by consumers. *Invesp, Product Return Statistics in E-commerce*



 Damaged products being delivered

 Wrong item being shipped

 Others

 Product looks different from how it appeared in website

# Why is reverse logistics important?

*64% of shoppers are hesitant to shop with retailers who have issues with the returns process.  
44% of retailers conveyed that their margins are negatively affected by handling returns.  
Reverse Logistics report, 2018*

Many retailers and manufacturers ignore the importance of reverse logistics. They usually emphasize on [last-mile delivery](#), [route planning and optimization](#), and order fulfillment.

*75% of retailers identify reverse logistics as a crucial part of supply chain management. But only 3% name it a key area for investment. - Optoro returns report, State of Retail Report, 2018.*

Here are the reasons why reverse logistics is essential for retailers and manufacturers:

- **Lenient return policy improves customer experience**

*Consumers are likely to spend more than \$1000 online if they are offered free returns.-Walker sands future of retail study, 2015.*

*79% of customers require free return shipping- Invespcro.com*

Today, customers have become the center of attention for logistics companies. [E-commerce businesses](#) have started to shift their focus towards delivering to people and not to places.

Lenient return policies positively impact purchasing behaviors, but the cost of reverse logistics must also be taken into account. Free returns lead to repeat customers and this positive customer experience brings in more customers.

*91% of returns account for efforts of retailers to attract new customers. They channel their efforts offering free returns for unwanted purchases. - Omnichannel retail survey, KPMG.*

- **Save businesses from fraudulent costs**

*In the USA alone, return deliveries will cost \$550 million by 2020 that is 75.2% greater than four years before.- Statista*

[Fraudulent returns and the cost of returns](#) are crucial areas that require investigation. Fraudulent returns occur when someone purchases a product without the intent of keeping it. Here customers purchase the product, rent it, and then return the merchandise.

## Stats on fraudulent returns in US retail in 2019 ( A report by Appriss on returns in the retail industry)



The biggest concern for online retailers is the cost of reverse logistics. Reverse logistics incurs huge costs and also impacts profits. Hence, a transparent reverse logistics policy helps an E-commerce business save 'fraudulent costs' and attract more customers.

E-commerce businesses need to also actively focus on reducing hidden costs. Managing these hidden costs can enhance the reverse logistics experience.



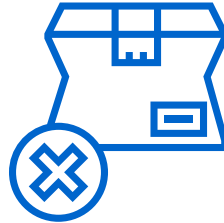


## ● Hidden costs in reverse logistics



### **Labor costs:**

From warehousing to customer relations



### **Grey market item costs:**

Returned products sold in other distribution channels



### **Visibility costs:**

Customers attempting to know the status of the returns



### **Innaccurate forecasting costs:**

Occurs when there isn't enough information to forecast



### **Credit costs:**

Costs related to settling finances



### **Delivery Experience costs:**

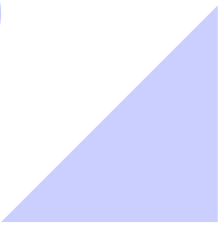
Long response time to deal with returns

- **Crucial component to make supply chains efficient**

*Return and repairs processes account for 10% of total supply chain costs. Inefficient processes in the supply chain can reduce profits by 30%. - Reverse Logistics Association.*

Managing the efficiency of logistics is not the core competency of the manufacturing organization. The growth of reverse logistics globally provides the ideal platform for third-party operators to deal with reverse logistics exclusively.

Thus, a separate provision for reverse logistics improves efficiency of supply chain and helps manufacturing companies focus on their core competency.



# Historical evolution of reverse logistics

1861-65

## 'Discovery' of reverse logistics

After the end of the American Civil War (1865), General William Sherman encountered a problem. Spring rains in North Carolina led to the Neuse river rising well above the normal level. His troops were unable to carry the excess military equipment across the river. This led Sherman's troop to dump or 'return' excess supplies and obsolete items.

1872

## First major reverse logistics operation- Montgomery Ward

In 1872, a furniture retail company named Montgomery Ward incorporated retail returns in its customer service policy. This policy stated that if customers were not 100% satisfied with the product, they could bring it back for a full refund. It is quite ironic that the company that initiated the returns process is no longer in business.





1942

### **Recycling and remanufacturing**

During the 1940s, there was a shortage of metals, rubbers, and other materials to supplement World War II efforts. Manufacturers learned to repurpose waste and surplus materials. They made huge leaps in recycling and remanufacturing to enhance their economic sustainability.

#### **An interesting case of US Army military equipment**


After the end of the Second World War, the US army recycled \$6.3 billion worth of military equipment into other applications.

1991-96

### **Reverse logistics for positive environmental impact**

The Federal Republic of Germany in 1991 passed mandatory recycling programs. These ordinances imposed fines and prosecution for violators. There were strict guidelines to handle, transport, and recover hazardous wastes.

In 1996, this German ordinance led the United Kingdom to pass laws that made shippers and manufacturers responsible for recycling and return of packing materials. It added goals for reducing package materials. It also stressed on minimizing the package size so as to reduce environmental impact.





1998-2000

### **Strategic application of reverse logistics in business**

In the 1990s, the Council of Supply Chain Management Professionals published two research works on reverse logistics. The first one was James R. Stock's work on how to set up and operate reverse logistics programs. This work discovered the potential of reverse logistics.

Rogers and Tibben-Lemke, who did the second work, provided reverse logistics business statistics classified by industry types. This work mentioned that the magazine publishing industry has a short shelf life and had the highest reported returns of 50%. It also showed other industries that have high return rates like greeting card companies.

Beyond these works, some more articles focused on the optimization of reverse logistics programs.

After  
2000

### **Formal use of reverse logistics after the rise of e-commerce**

The massive use of the internet among American households and the rise of multi-channel retailing drove the need for reverse logistics. The mid-nineties to 2000 witnessed the commercial use of the internet.

In 1995, Amazon launched an online bookstore. Offline book stores were able to accommodate only 200,000 book titles. Amazon, without any physical limitations, exponentially offered more products like MP3 downloads, computer software, DVDs, CDs, Video games, etc. Amazon's unique feature was user reviews for the products it sold. These customer reviews are now considered the most effective social media tool to drive sales. eBay, an online auction site, was launched in the USA in 1995 after the dot com bubble. These sites heralded the online shopping trend.

After 2010  
-Before  
Covid-19

### After 2010-Before Covid-19: New age of reverse logistics

*In 2017, there are 4000 businesses involved in the USA's reverse logistics industry. Despite a large number of companies, this industry has more scope for growth.- IBIS World Industry Report, Product Returns Management services in the USA, Dec 2017.*

As customers have now become convenient with online shopping, delivery companies have implemented new ways to enhance their return systems. This helped them:

- [Track delivery status](#)
- Analyze data on returns
- Merge forward and reverse pipelines into a single platform
- Integrate driver management app and customer service.

After 2010, many logistics businesses started to incorporate reverse logistics policies. Retail brands began to implement omni-channel returns policy for more convenience. But there are still some cost and efficiency issues that need to be sorted out to make businesses more profitable.



## Statistics on reverse logistics before COVID-19

*Consumers returned an average of **10%** of all goods purchased- National Retail Federation, 2018*

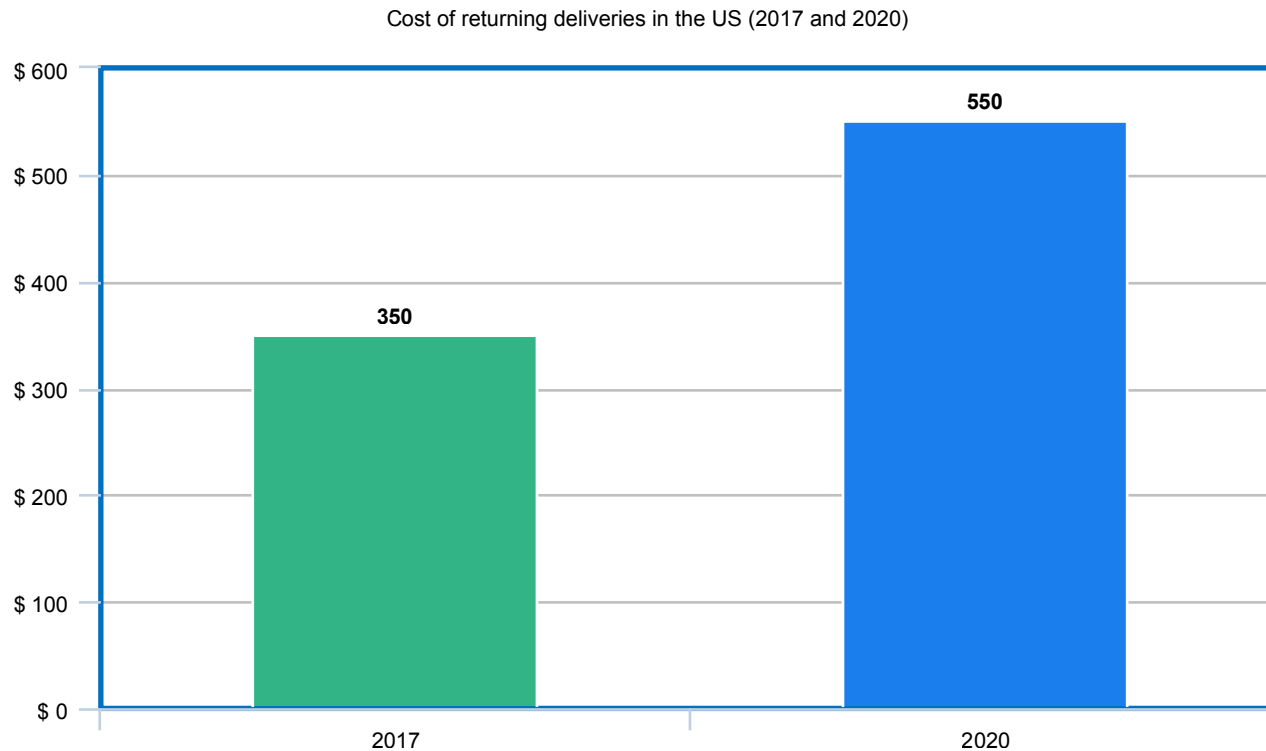
*Consumers worldwide return a staggering **\$642.6 billion** of goods annually. US Consumers are the biggest contributors to global returns with **\$221.7 billion** annually. IHL, A market research firm study, 2015.*

*Retailers in the USA lost **\$351 billion** in sales to merchandise returns. -Appriss survey on consumer returns in the retail industry, 2018.*

***70%** of shoppers made additional purchases when returning to the store. **45%** of shoppers made an additional purchase when processing a return on the website.- UPS Pulse of the Online shopping, 2016.*



# Reverse logistics during the COVID-19 pandemic



The [COVID-19 outbreak](#) has caused a rise in E-commerce and in turn, product returns. Companies are increasingly using return policies to differentiate themselves from their competition.

*“Returns cost retailers \$78 billion a year.”- Ben Balfour, Commercial Director, Advanced Supply Chain Group.*

The increasing costs in retail have led to the emergence of new trends like ‘Buy Now & Pay Later’. Retailers have also started to advertise Try Before You Buy’ to secure their sales and brand loyalty. An intelligent reverse logistics system has become a necessary component for businesses and their customers.

This pandemic has pushed the delivery companies to strike a fine balance between efficiency, safety, and customer experience.

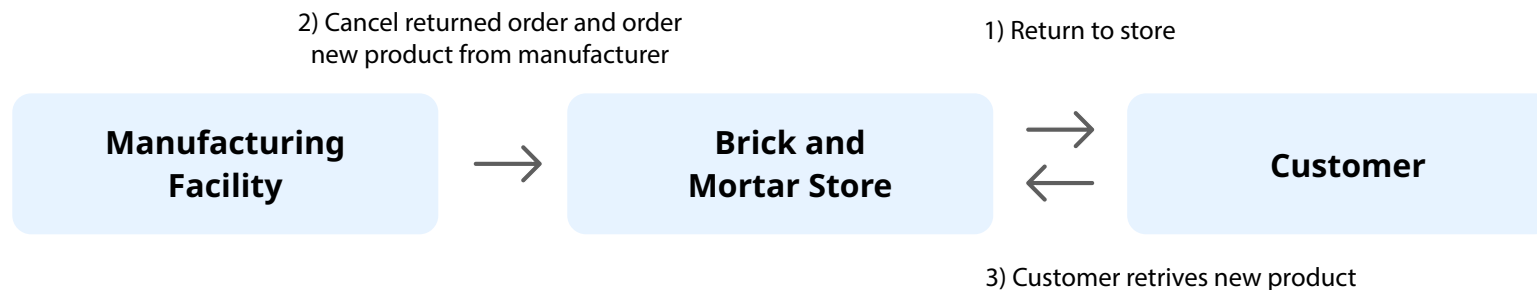


# What really happens in the background?

## Stage 1: Traditional pattern of reverse logistics

*42% of retailers said that they fully understood the financial impact of returns on their business. But 27% of them admitted that they couldn't measure it. - ARC Advisory Group and DC Velocity survey, 2017.*

The traditional reverse logistics pattern follows a straightforward approach. The customer who purchases the product returns it directly to the brick-and-mortar store. After this, the store has to deal with the



*Consumers returned 30% of all products ordered online from retailers and manufacturers. They return only 8.9% of all products brought in brick-and-mortar stores. - Invesp*

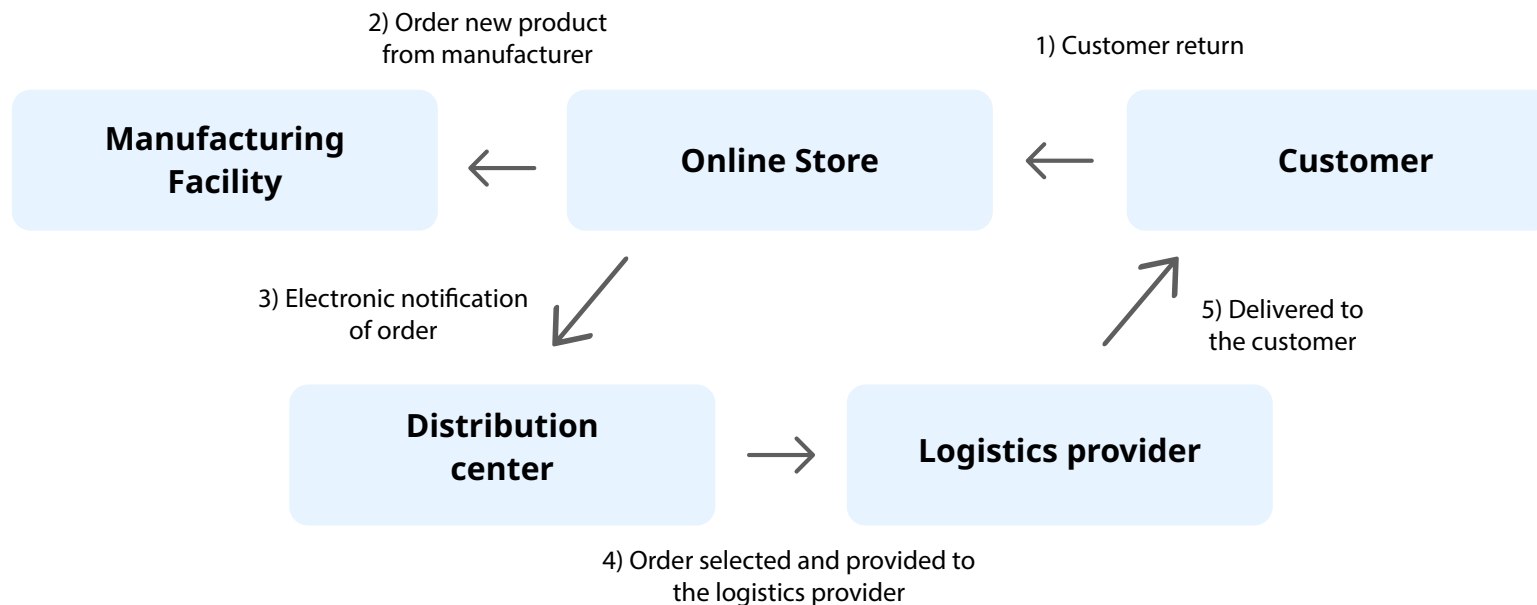
If an online purchase is made, the customer returns the product to the retailer, who will then send it to distribution centers, and finally to the manufacturing units.

## Stage 2: Information pattern for online return (Information flow)

*20% of goods sold in the United States are returned to their manufacturers at the cost of \$100 billion annually.-  
Deloitte report on Reverse logistics.*

The customer notifies the online retailer that they wish to return the product. The retailer finds out if the customer wants a refund or a replacement. If a customer wants replacement, the retailer notifies the distribution center and the manufacturer.

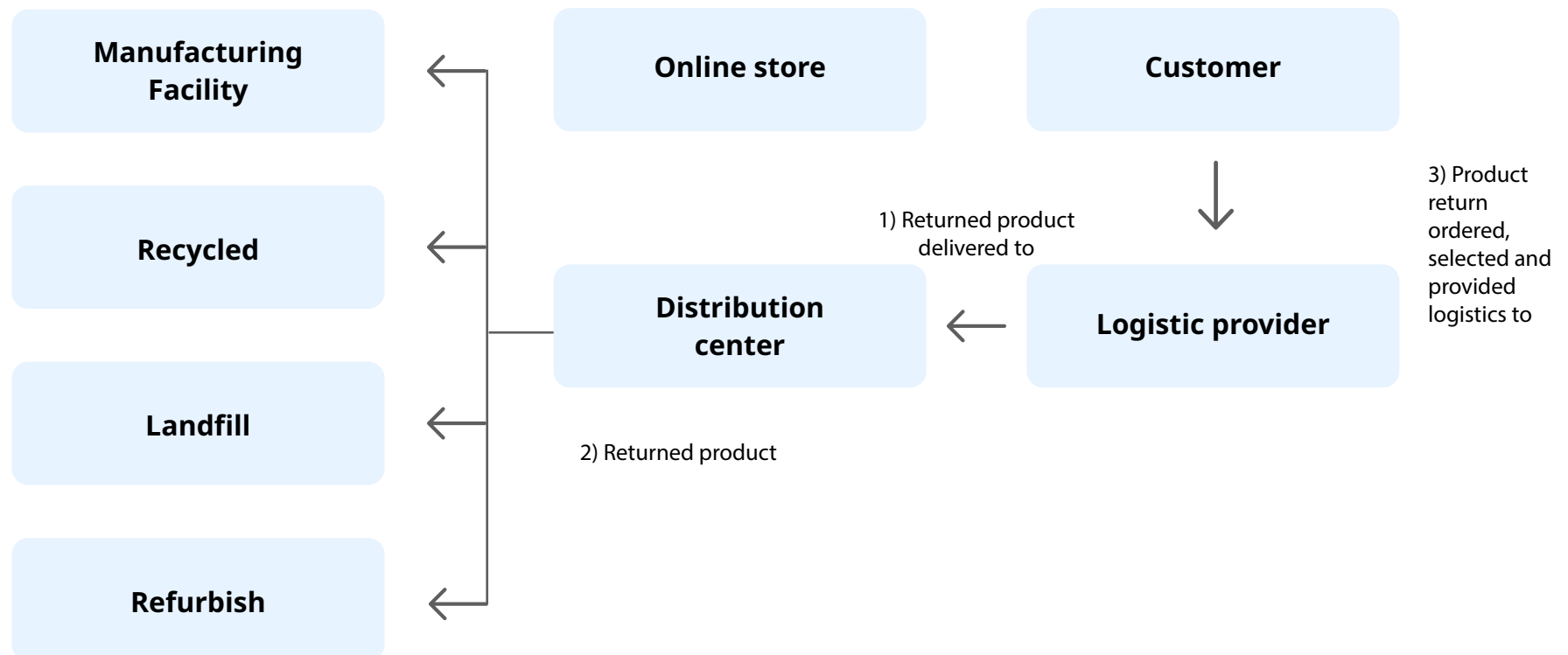
The reason to notify the distribution center and the manufacturer is to pre-schedule the replacement and plan production respectively. Once distribution ships the replacement, it reaches the customer.



## Stage 3: Distribution center- A pivotal decision-maker (Material Flow)

*52% of distribution center managers do not have the ability or resources to manage returned items. - Intermec study*

Products are returned from customers' locations to distribution centers. The distribution center reviews and then decides whether a product needs to be recycled, remanufactured, discarded, or refurbished. Once this is complete, the distribution center again moves the product to the designated location.

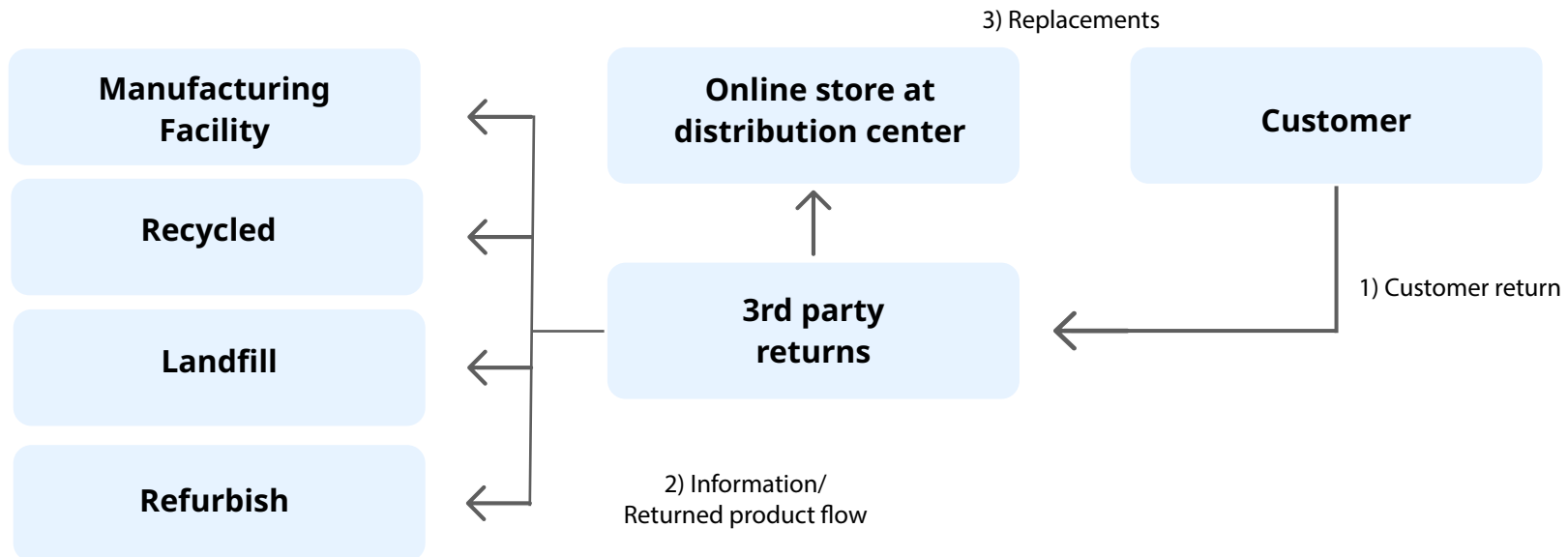


## Stage 4: Increasing need for 3PL providers specializing in reverse logistics

*3PL has shown a growth of over \$115 billion in gross revenues from 1996 to 2013.- Armstrong and Associates' study.*

Return processes outsourced to other organizations can provide better results. Businesses that focus on core competency win the market. Reverse logistics is not a core competency for production businesses. Hence, a third-party logistics provider who exclusively deals with returns adds value to an organization.

*40% of retailers mention that they use 3PL to handle returns. - DC Velocity*



A third-party provider solely dedicated to returns can improve efficiency. In this circumstance, retailers are not concerned about returned products until it comes under the scanner of 3PL operators. In this pattern, material flow and information flow follow the same path, unlike the previous two stages.

This pattern streamlines the reverse logistics process and makes it efficient. It also makes third-party companies more responsible for reverse logistics, which is their core competency. Also, it provides a delightful customer experience at economical costs.

# The future of reverse logistics

*By 2022, retailers will get 13 billion units of returned products worth \$573 billion annually. This estimate will be four times the total E-commerce sales in 2008- National Retail Federation, 2019*

Successful returns management requires analytical insights, domain knowledge, and a deep understanding of both customer behavior and supply chain issues. Reverse logistics determines the sustainability of delivery businesses globally.

Reverse logistics will witness sea changes in the near future to bring in more efficiency and also increase profits.





### **Return strategy will become an integral part of supply chain strategy**

*Customers return \$650 billion of goods each year which is 4% of global retail revenues.- Market Research firm, IHL.*

The future of reverse logistics will see companies integrating return strategy with their supply chain transformation strategy. There will be an in-depth research into reducing the many costs involved in reverse logistics.

Retailers will build a cross-channel return strategy that connects end-to-end consumer sales cycles. This helps them provide a holistic shopping experience to customers that generates a better return on investment.

### **Contactless returns will see a boom after COVID-19**

*The United States has witnessed a 20% increase in preference for contactless deliveries.- McKinsey post, Adapting CX in times of COVID-19, April.*

Social distancing has become the new normal. If deliveries are contactless, the returns have to be contactless too. This might very well be a long term trend.

## **Investment in automation and visibility will increase**

*Retailers save 20% of costs on each returned item which help them improve margins by 3% to 15%.- Bain & Company*

Businesses will start investing in critical steps of reverse logistics to increase visibility in the supply chain. They face cost challenges when enabling consumers to return products through the channel of their choice. Beyond the use of technologies, a strategic approach towards logistics can help them reduce reverse logistics costs.

## **Outsource returns management-Increasing role of 3PL operators**

*Delayed processing time, liquidation recovery and manual processes result in more than \$50 billion profit loss. Also, it results in more than 10 billion needless shipments and touches.- James Breeze, Global head and Industrial and logistics research, CBRE*

The biggest [challenges for reverse logistics](#) are product value depreciation and time sensitivity. Return pressures during holiday sales will also increase these challenges. Thus, businesses with thin supply chain networks will outsource their returns management to 3PL companies.

This move, beyond freeing up space for forward logistics, will also increase the number of 3PL operators specializing in reverse logistics.

## Reverse logistics: A mandatory strategy to attain loyal customers

*Over \$400 billion goods have been returned in the US within a twelve month timeframe. - National Retail Federation, March 2020.*

Today, reverse logistics has become an inevitable need for businesses to attract customers. Customers make their decisions based on [delivery experience](#) a company provides. Delivery businesses are building reverse logistics strategies where cost-only decisions have a lesser role to play. These strategies help them improve brand loyalty and drive sales.

As returning items is becoming a normal part of customer purchasing, reverse logistics will determine the future of E-commerce.

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