



E-BOOK

# A BRIEF ON T&L

Stakeholders | Segments | Processes | Equipment | Documentation

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## PREFACE

DiLX is a Gateway Group Company headquartered at Zoetermeer, The Netherlands with 16 other international footprints globally. DiLX focuses on providing state-of-the-art & innovative software solutions and services for the Supply chain industry. We combine global experience, multiple success stories, a vast solution portfolio, technology expertise and domain knowledge into successful projects that transform strategy into solid results. It was during the late 90s', during which the economy grew rapidly. There has been an incredible economic transformation in the supply chain sector. Thus, DiLX made recognition in SCM and logistics by creating a competitive advantage for European business in this buoyant period of export-driven economic growth. DiLX is involved in a wide range of SCM and Logistics solutions providing, including business consultancy, research, innovative concepts and awareness creation. It has worked in all major sectors including NVOCC, trucking, warehousing, logistics service providers, retail and e-commerce. In the process, the staff has developed great expertise and unrivalled experience of SCM and logistics and in particular, its role in improving competitive capability in a rapidly changing economic and business environment.

This book provides a glance over the process of Transport and Logistics. The pace and the uncertainty of the evolution of the market has made it increasingly important for companies to be aware of the supply chains they participate in and to understand the roles that they play. The companies that build and participate in strong supply chains have a competitive advantage. Supply chain management (SCM) helps firms seamlessly collaborate their business with other value chain partners to meet the unpredictable demand in the market.

We, as a team have collaborated to finalize the manuscript. Inevitably, there will be some overlap between sections and subsections. This is a result of the nature of the supply chain, where no individual link or element can be dealt with in isolation. Everyone/ everything in the supply chain is inter-dependent. We hope that this book will be read with equal enthusiasm by students, researchers and practising SCM and logistics professionals.

## 1. BASICS

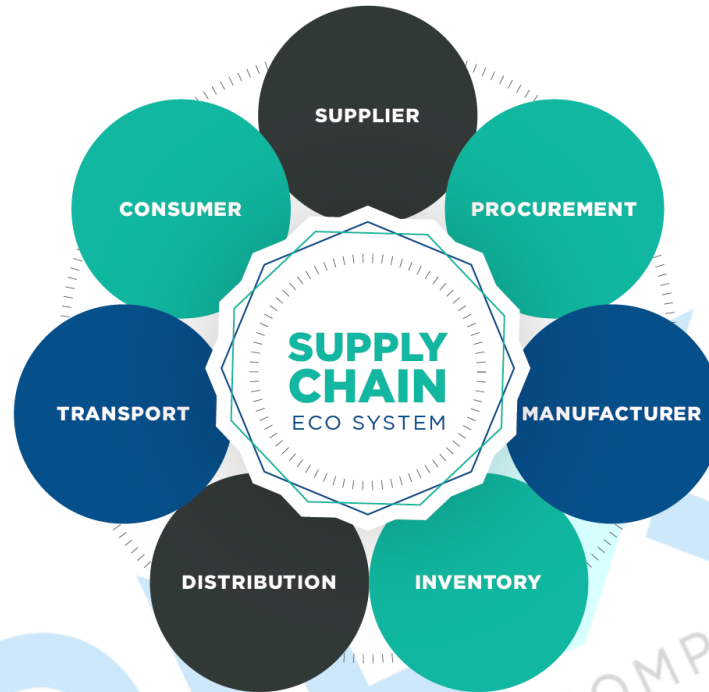
Before we dive in the details of the Transport and Logistics ecosystem, let's learn the difference between them.

**Logistics** is a part of Supply Chain Management that deals with management of goods. The process that integrates the movement of goods, services, information and capital, right from sourcing of raw materials, until it reaches its end consumer is known as Logistics Management.

**Transportation** a part of Supply Chain Management that refers to the movement of product from one location to another as it makes its way from the beginning of supply chain to the customer. Transportation provides greater visibility and lower occurrence of supply chain errors.

**Supply Chain Management** is a series of interconnected activities related to the transformation and movement from raw material to the finished goods until it reaches the end-user. It is the outcome of the efforts of multiple organizations that help in making this chain of activities successful. Thus, a number of organizations are involved in Supply Chain Management.

## 2. SUPPLY CHAIN ECOSYSTEM



Supply Chain is a sequence of processes involved in the production and distribution of commodity/ goods. The number of third party organizations work together to deliver product to customers including Vendors, Transportation, Providers, Warehouse Providers and others.

Here is a brief on individual segments of the Supply Chain Eco-System:

**Supplier:** It falls under a supplier's duty to produce and supply a quality product that meets the manufacturer's needs, and deliver the product on time.

**For example,** A X company manufactures high-end furniture, and that a supplier provides metal handles and other attachments. The metal components need to be durable so they can be used on the furniture for years, and the metal parts shipped to XYZ should work as intended. The supplier must be able to fill the manufacturer's orders and ship metal parts to meet XYZ's production needs. These steps are necessary to produce a quality product that is shipped to a customer in a timely manner.

**Manufacturer:** Manufacturer converts the raw materials into the final products. A well - managed supply chain system can reduce the cost and complexity of the manufacturing process, particularly for a manufacturer who uses many parts.

For example, A garment manufacturer will first move raw materials into production, such as fabric, zippers, and other required pieces. The manufacturer then incurs labour costs to run machinery and perform other work using the materials. Once the items are completed, they must be packaged and stored until they are sold to a customer.

**Procurement:** Procurement is the process of getting the goods and/or services your company needs to fulfil its business model. Some of the tasks involved in the procurement process include maintaining quality standard, financing purchases, creating purchase orders, negotiating price, buying goods, inventory control, inventory management, and disposal of waste products such as packaging.

In the overall supply chain process, procurement stops once your company is in possession of the goods. To make a profit, the cost of procuring your goods must be less than the selling price of the product minus the costs that are associated with processing and selling them.

**Inventory:** Inventory supervises the flow of goods from manufacturer to warehouse and from warehouse to the point of sale. The main function of Inventory is to keep a detailed record of each new or returned product as it enters or leaves the warehouse or is at the point of sale. A ton of data such as lot number, serial numbers, cost of goods, quantity of goods, and associated dates with the movement of these goods has to be tracked.

Performing deliveries just within a day or two have put new hurdles for shippers that have to manage e-commerce and Omnichannel sales across multiple channels, meet their customers' growing demands for a better buying experience.

To overcome such pain points, we incorporate tools like barcode scanning, inventory optimization for complex operations. Large systems were traditionally run on-premises; but are now also deployed in public cloud, private cloud and hybrid cloud environments. Small and midsize companies typically don't need such complex and costly systems, and they often rely on stand-alone inventory management products, generally through SaaS applications.



**Distribution:** Distribution management refers to the process of overseeing the movement of goods from supplier or manufacturer to point of sale or end-user.

A distributor is typically an organization that takes ownership of significant inventories of products that they buy from producers and sell to consumers. In addition to product promotion and sales, the distributor performs other functions such as inventory management, warehouse operations and product transportation as well as customer support and post-sales service. A distributor can also be an organization that only brokers a product between the producer and the customer and never takes ownership of that product. This kind of distributor performs mainly the functions of product promotion and sales. In both of these cases, as the needs of customers evolve and the range of available products changes, the distributor is the agent that continually tracks customer needs and matches them with products available.

**First mile Logistics:** When the shipper receives the goods/ parcel from the distributor, it is called the first-mile Logistics / Delivery.

**Transportation:** Transportation refers to the movement of product from one location to another as it makes its way from the beginning of a supply chain to the customer. Any supply chain's success is closely linked to the appropriate use of transportation.

Walmart has effectively used a responsive transportation system to lower its overall costs. At distribution centres, Walmart uses cross-docking, a process in which product is exchanged between trucks is so that each truck going to a retail store has products from different suppliers.

There are four modes of transportation: Road (Truck), Rail, Air, Sea.

Various terms related to Transport industry:

**Consigner** is the person who sends the shipment.

**Consignee** is the persons who receive the shipments.

**Shipper** either Sender or Receiver maybe both.

**Last Mile Logistics:** The final step of the delivery process from a distribution center or facility to the end-user (goods delivered to end-user).

**Consumer:** Consumers are any organization/people that purchase and use a product. A customer organization may be an organization that purchases a product in order to incorporate it into another product that they, in turn, sell to other customers. On the other hand, a consumer may be the end-user of the product.



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3. TRANSPORTATION