

CHAPTER 1: The environment of Last Mile Distribution logistics

UNIT 1: Scope and definition of Last Mile Distribution Logistics

Capsule 1.1.1

Introduction to LMD

To be done prior to this capsule:

n/a

Capsule linked with:

n/a

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Objectives of the Capsule

In this capsule, learners will be introduced to the scope and definition of LMD, as well as to its main features and context of application. The user will also gain knowledge about the role of LMD within the Supply Chain, the features that determine an impact on final delivery. Finally, the difference between B2C and B2B will be made.

Category	E-learning	EQF		
		4	5	6
		X	X	X

Exercises included	YES
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Effort for the capsule	Content	Exercises	Extra Materials
	20 Minutes	5 Minutes	60 Minutes

Contents

1. Last Mile Distribution: definition & characteristics of the process of cost-effectively managing user-end deliveries
2. Context of application: last mile delivery within the whole supply chain
3. Different types of LMD: B2B and B2C

1.1 Last Mile Distribution

- In the field of logistics and transport, **last mile refers to the actual delivery of the item to the customer, which can take place at home, in the shop or by click & collect.**
- Last mile Distribution has historically been one of the **most critical points** in the supply chain, made even more complex by the rise of e-commerce, which has contributed to the complexity of these stages with same-day shipping.
- Improving **first mile and last mile delivery** can help make logistics less polluting and inefficient. At the same time, it can increase the attractiveness and efficiency of sustainable modes of transport.



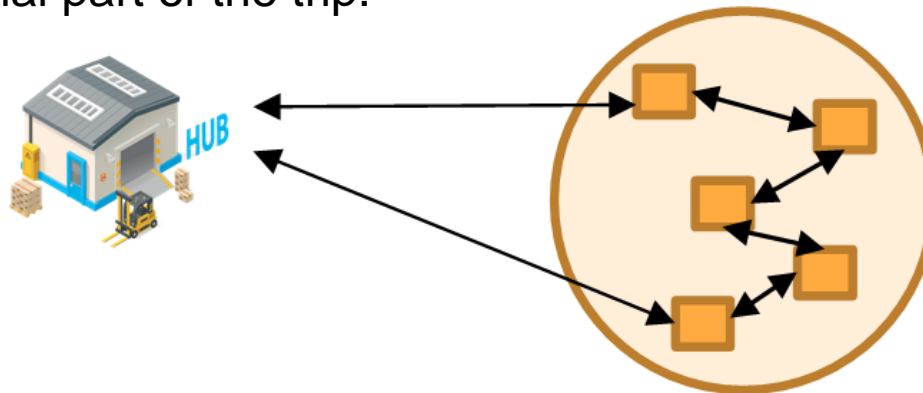
1.2 Last and First Mile Delivery

- Urban freight transport is related to the movement of goods into, out of, and within urban areas and is closely linked to national and international freight transport flows.
- The terms “last mile” and “first mile” are in fact very similar: they refer to the first and last leg of the trip. However, they are usually both referred to as «last mile».
- For urban freight transport the major client sectors — which are sometimes interrelated are: (1) retail (including e-commerce), (2) express, courier and postal deliveries, (3) hotels, restaurants and catering (Ho.Re.Ca), (4) construction, and (5) waste.



1.3 Last Mile Delivery

- This image represents the meaning of **last mile delivery (LMD): the last leg of transport, usually within the urban environment.**
- In freight transport the last mile delivery is defined as the movement of goods from a transport hub to the final delivery destination.
- The goods are first transported from the nearest distribution hub, to the final destination, that could be a business or a home. Then, last mile delivery takes place over the final part of the trip.



Last mile delivery

2.1 Context of Application: LMD in the entire Supply Chain

Five supply chain drivers influence the performance of LMD.

- ✓ Production
- ✓ Inventory
- ✓ Location
- ✓ Transportation
- ✓ Information



In a global LMD scenario, companies strive to develop and manage these drivers to optimize the most cost-effective balance between responsiveness and efficiency, depending on the sector, items to ship and deliver, shipping distance and customers' expectations.

Self-evaluation quiz

Which among the following drivers is not affecting supply chain performances?

1. Transportation means
2. Water supply
3. Production
4. Inventory



2.2 Context of Application: LMD in the entire Supply Chain

Supply Chain is the management of flows. LMD is included in the supply chain because it covers the crucial delivery to customers.

However, it is not all about the goods. LMD must in fact consider three major flow:

- **product flow** (how goods move along the supply chain): The product flow includes the movement of goods from a supplier to a customer, as well as any customer returns or service needs.
- **financial flow** (how money and resources move along the supply chain): The financial flow consists of credit terms, payment schedules, and consignment and title ownership arrangements
- **information flow** (how information is transferred along the supply chain); the information flow involves product fact sheet, transmitting orders, schedules, and updating the status of delivery.

Only by considering these 3 major flows, LMD can be successful.

3.1 Different type of businesses: B2B & B2C

B2C stands
for
«business
to
consumer»

Selling or delivering products or services by a business directly to the end consumer.

→ Amazon.com, for example, is an online retail platform that sells products from the business to the end consumers

B2B stands
for
«business
to
business»

Selling or delivering products or services from a business to a business. B2B is a transaction or business between companies.

→ Apple company specialises in consumer electronics and software. To produce the iPhone, they will buy parts from other companies.

3.1 Different type of businesses: B2B & B2C



Watch these interesting
videos about B2B &
B2C features!



[B2B vs B2C – Understand the difference](#)

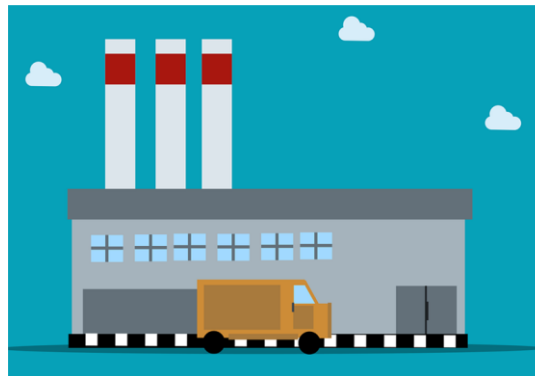


[B2B vs B2C Sales: what's the difference?](#)

3.2. Different types of LMD: production B2B & distribution B2B

An efficient LMD scheme is crucial for the competitiveness of a company. Successful managers need to take into careful consideration the following factors:

- **LMD is expensive:** e-commerce orders multiply complexity
- **Customer experience is key:** mistakes & delays in delivery to the customer will negatively affect the whole process.



3.3. Different types of LMD: production B2B & distribution B2B

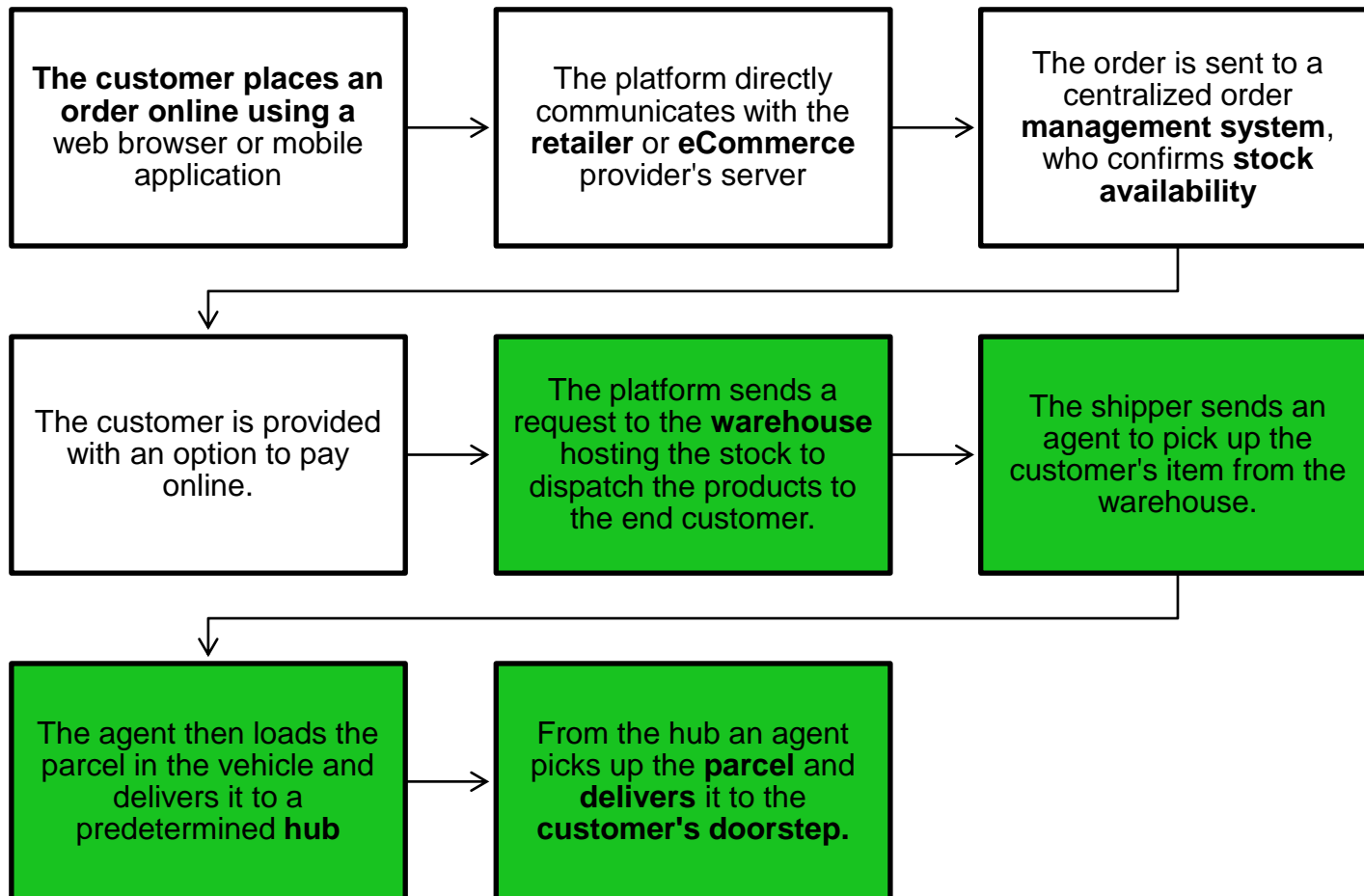
- The management of LMD changes depending on the business model, which in turn will directly influence the supply chain.
- In case of B2B, the mode of delivery and all the activities preceding or following delivery must be adapted. In this case, we can consider two types of model.

Production chain (B2B): last mile takes on a crucial role as the supply of raw materials is carried out to advance the production processes of the factories.

Distribution chain (B2B): in this case last mile delivers the products needed to stock the shelves of the shops.

3.4. Different types of LMD: retail B2C & final customer delivery

In B2C the final customer places an order so that a specific good can arrive to his/her home. The green boxes in the process below highlight when LMD is involved.



Capsule's validation quiz

The following quiz represents 5 questions you will have to answer to confirm your understanding of the present capsule.

Each correct answer is worth 1 point. No point for errors.



Self-evaluation quiz

Question n°1 :

What does the term Last Mile Distribution refer to?

1.Vehicle fleet management

2.Delivery of the item to the customer

3.Warehouse management

4.E-commerce implementation

Self-evaluation quiz

Question n°2 :

Over what distance does LMD take place?

1. In the same city or district

2. In the same country

3. Over 50 km maximum

4. Over any distance, as long as it is the final step

Self-evaluation quiz

Question n°3 :

Which factor does not affect supply chain flows in LMD?

1.Information flow

2.Production flow

3.Financial flow

4.Energy management flow

Self-evaluation quiz

Question n°4 :

Which factor is the key for success in LMD?

1.Reduce the range & variety of Items

2.Maximize vehicle's load

3.Customer's experience

4.Enlarge the warehouse

Self-evaluation quiz

Question n°5 :

Which sentence is wrong about retail B2C delivery?

1.The customer's order is digitally recorded into the seller's management system

2.No transportation hub is involved in the process

3.Parcels are scanned while loaded onto the trucks

4.The item is delivered to the intended recipient



Validate and quit capsule



References

- (1) Mecalux Italia Srl (2019). Last Mile: definizione, caratteristiche e strategie per gestire la logistica dell'ultimo miglio, <https://www.mecalux.it/blog/last-mile-logistica>
- (2) Krishna, S., (2016), The Five Major Flows in Supply Chain. *Brandalyzer. Consumer Behavior, Retail, Marketing, Psychology*, <https://brandalyzer.blog/2016/03/23/the-five-major-flows-in-supply-chain/>
- (3) Far Eye, (2021), Last mile delivery: tips to overcome challenges and optimize them. <https://www.getfareye.com/insights/blog/last-mile-delivery-guide>
- (4) EEA (2019), Transport and environment report (TERM) 2019, *Report No 18/2019*, <https://www.eea.europa.eu/publications/the-first-and-last-mile>