

CHAPTER 2: Last Mile Distribution logistic operations and impacts

UNIT 3: Operational trends for all operators

Capsule 2.3.5

Impact of disruptive events on Last Mile Distribution



To be done prior to this capsule:

1.1.1

Capsule linked with:

Capsule 2.3.2, 2.3.4, 2.4.5, 2.5.1

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Objectives of the Capsule

The objective of the capsule is to provide students with awareness and understanding of the (potential) impacts of disruptive events on last mile distribution (LMD) business. A recent example, the COVID-19 pandemic, is used as the students have close personal experience with it and its impacts.

Category	Document, source	EQF		
		4	5	6
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Exercises included	YES
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Effort for the capsule	Content 5 Min.	Exercises 5 Min.	Extra material 70 Min.
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Content of the capsule

1. What is disruptive event?
2. What is disruptive innovation?
3. Example: How has the COVID-19 pandemic changed LMD.

Instructions for the Capsule

You will find attached to this Capsule three sources of information:

1. The first source is an expert article which analyzes what are disruptive events and how they can affect a company. After the reading you should be aware not only of what disruptive events are but also how to be prepared for the changes they can bring.
2. The second source is a web site article that explains the nature of disruptive innovation. What is important here, following the first source, is a connection between the occurrence of a disruptive event and the potential for new (disruptive) innovations.
3. In the third source, which is an insight report of the World economic forum, you will get a general picture of how the COVID-19 pandemic has affected last mile delivery sector and what kinds of changes it triggered.

What is disruptive event?

In our complex world is inevitable that once in a while some important event changes well established rules. It is called disruptive events. It is an event with drastic potential consequences for stakeholders in a sector which is significantly touched by this event.

Disruptive events are a major risk factor for companies that, in case it occurs, have to adapt to a new situation. However, it is also a chance for their competitors to exploit the opportunity and replace them on the market because of better adaptation.

What disruptive innovation is?

Below you will find some examples of disruptive events:

- Extreme Weather and Natural Disasters
- Manmade Disaster or Disruptions
- Human Health & Social Factors
- Significant Economic Events
- Disruptive Governmental or Political Changes
- International Geo-Political Changes
- New Technology – Technological Development
- Industry or Market Changes or Disruptions
- Legal & Regulatory Changes



Source (pdf in EN):
Pells, D. L. (2009).
Disruptive Events!
Are you, your
project or your
organization
prepared? *PM
World Today*, 11.
[https://pmworldlibra
ry.net/wp-
content/uploads/20
16/12/2009-Sept-
Pells-Disruptive-
Events-Are-you-
prepared.pdf](https://pmworldlibrary.net/wp-content/uploads/2016/12/2009-Sept-Pells-Disruptive-Events-Are-you-prepared.pdf)

What disruptive innovation is?

While **disruptive events** mostly happen in a way that companies can not affect, **disruptive innovation** is understood as a kind of technological or organizational improvement that transforms a given environment (such as the LMD sector). It can be a company that becomes a game-changer. An example is Amazon in bookselling sector (at the beginning) or Netflix in movies distribution. Those companies created a new business model by innovatively using existing technologies so they could address their product to a broader consumer population.

What is disruptive innovation?

Key Takeaways:

- Disruptive Innovation refers to innovations and technologies that make expensive or sophisticated products and services accessible and more affordable to a broader market.
- Disruptive Innovation refers to the use of technology that upsets a structure, as opposed to „disruptive technology“, which refers to the technology itself.
- Amazon, launched as an online bookstore in the mid-1990s, is an example of disruptive Innovation.
- Disruptive innovation requires enabling technology, an innovative business model, and coherent value network
- Sustaining Innovation is the process of innovating to improve products and services for existing customers.

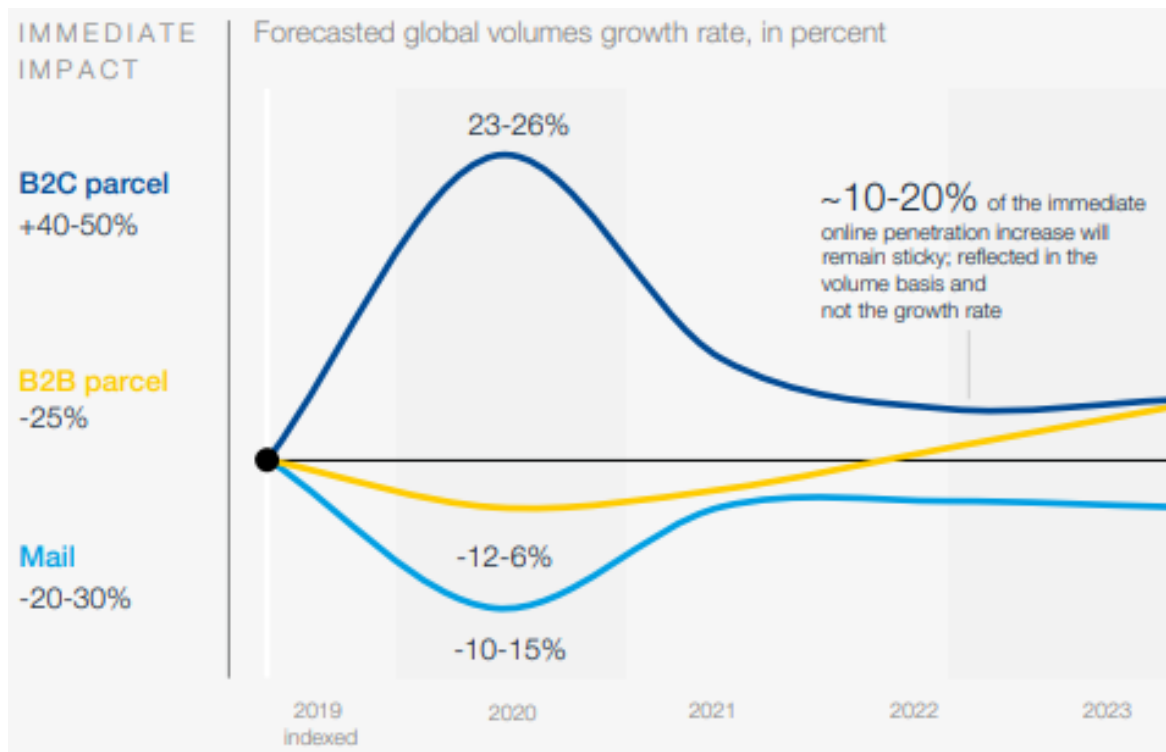


Source (web site in EN): Twin, A. (2021, September 23). *Disruptive Innovation*. Investopedia.com.

<https://www.investopedia.com/terms/d/disruptive-innovation.asp>

Example: How COVID-19 pandemic changed LMD

The most current example of a large-scale disruptive event is COVID-19 pandemic. In 2020, due pandemic situation, significant growth of BC2 (business-to-consumer) emerged (see *the chart below*).



Example: How COVID-19 pandemic changed LMD

The World economic forum report suggests that there are six structural changes triggered by COVID-19 pandemic:

1. An Increase in LMD that will persist beyond the pandemic.
2. Consumers increasingly buy new types of products online and consider environmental and health impact when buying.
3. Decarbonization of LMD has accelerated.
4. Faced with budget challenges and increased transportation needs, cities steer last-mile transitions.
5. Proven technologies are fuelling the last-mile ecosystem revolution.
6. New business models emerge to meet increased demand for sustainable delivery vehicles.



Source (pdf in EN): World Economic Forum. (2021, April). *Pandemic, Parcels and Public Vaccination Envisioning the Next Normal for the Last-Mile Ecosystem*. https://www3.weforum.org/docs/WEF_Pandemic_Parcels_and_Public_Vaccination_report_2021.pdf

Document, Source 1

Pells, D. L. (2009). Disruptive Events! Are you, your project or your organization prepared?. *PM World Today*, 11.

<https://pmworldlibrary.net/wp-content/uploads/2016/12/2009-Sept-Pells-Disruptive-Events-Are-you-prepared.pdf>

Document, Source 2

Twin, A. (2021, September 23). *Disruptive Innovation*. Investopedia.com. <https://www.investopedia.com/terms/d/disruptive-innovation.asp>

Document, Source 3

World Economic Forum. (2021, April). *Pandemic, Parcels and Public Vaccination Envisioning the Next Normal for the Last-Mile Ecosystem*. https://www3.weforum.org/docs/WEF_Pandemic_Parcels_and_Public_Vaccination_report_2021.pdf

Exercise: Open questions

Based on what you have learnt in this capsule, please try to answer the following questions in your own words.

- What is disruptive event? Try to remember some disruptive events from the near history and think about their consequences on the economy, society, companies etc.
- What is disruptive innovation? Try to remember some disruptive innovations from the near history. By what technology or idea the innovation was driven?
- What were the consequences for the existing business structure? The COVID-19 pandemic changed the LMD sector in many ways. Think about what changes will persist in the future and what changes will pass together with the pandemic.