

Observatoire des futurs
EM Strasbourg

Upstream – Downstream

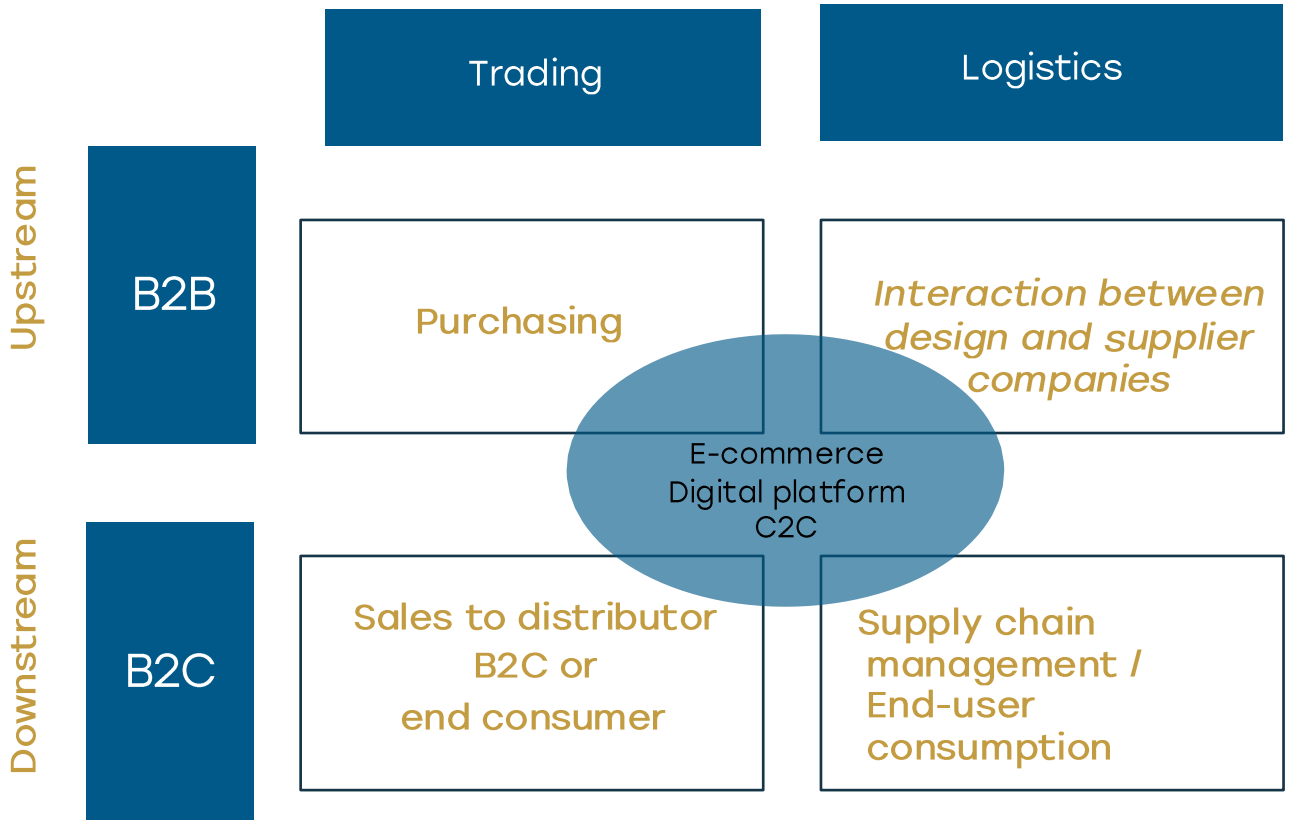
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Upstream – Downstream

1. Definition and Relationships with Other Factors

General Definition

- The upstream/downstream variable refers to the distribution sector, which can be segmented into B2B (upstream) and B2C (downstream) and consists of two main activities: trading and logistics.



Definition and Relationships with the Other Factors

Connection to Uberization and Industry 2030 / Key Questions for the Future

- **DOWNSTREAM: Crowdshipping and integration of the upstream sector by downstream players**

  The challenge of the uberization of urban logistics (crowdshipping)—how far should we go? Integrated supply chain => full vertical integration by "pure players"

- **UPSTREAM: 4PL and infomediation => How far should we go?—The challenge of coordination**

  Which players? Should we encourage manufacturers to organize into networks? A global platform?

- **TRADE: E-commerce for manufacturers and the consumer's active role: new opportunities?**

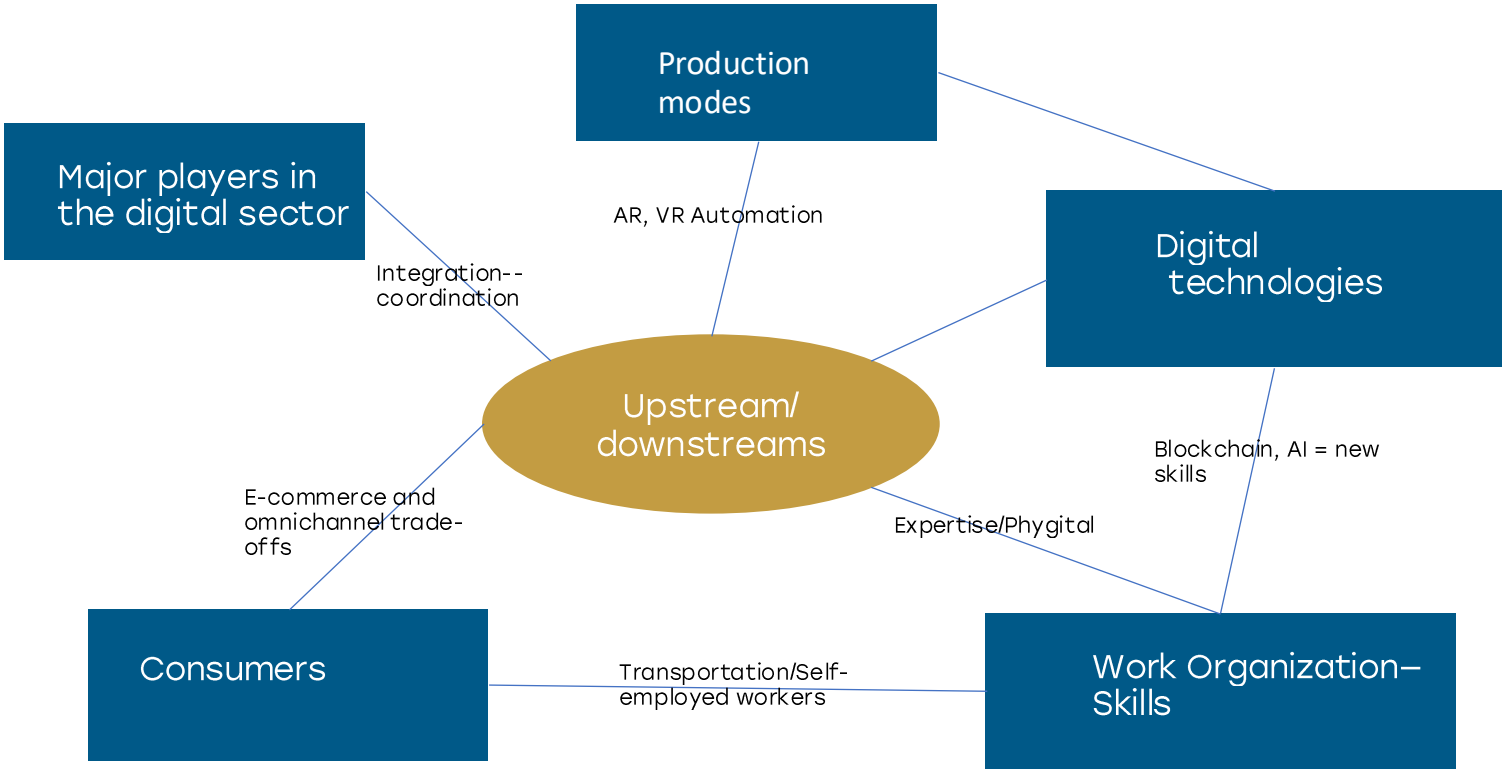
  E-marketing, e-business, and the impact on manufacturers => Can manufacturers "Uberize" themselves through e-commerce?

  Consumer empowerment => what will the relationship with manufacturers look like? Can consumers take charge of the digital platform?

- **LOGISTICS: What potential do AI and new technologies hold for optimizing the supply chain?**

Relationships with Other Factors/Stakeholders

Relationship Between the Upstream/Downstream Variable and the Other Variables in the System



2. Summary of the Retrospective Analysis

Retrospective

In General and for Uberization and Industry 2030

- **UPSTREAM/DOWNSTREAM**
  - **Downstream:** the consumer's key role in the supply chain/in retail => Quality challenge
  - **Upstream:** Fragmentation of the value chain, with manufacturers shifting toward network-based approaches => a holistic approach using SCM
  - **In the middle**, B2B intermediaries and their ability to survive in the face of disintermediation driven by a direct B2C approach

Trend toward uberization => controversy over manufacturers' role in coordination

  - **TRADING/LOGISTICS**
    - Disruption of the "brick-and-mortar" sales model by a virtual model => digitization of commerce
    - Evolution of logistics toward the supply chain with a holistic approach and advancements in processes and technologies (automation, zero inventory) => moving toward greater agility

- **Shift toward a holistic/customer-centric approach, agility, and technology—favorable to uberization**

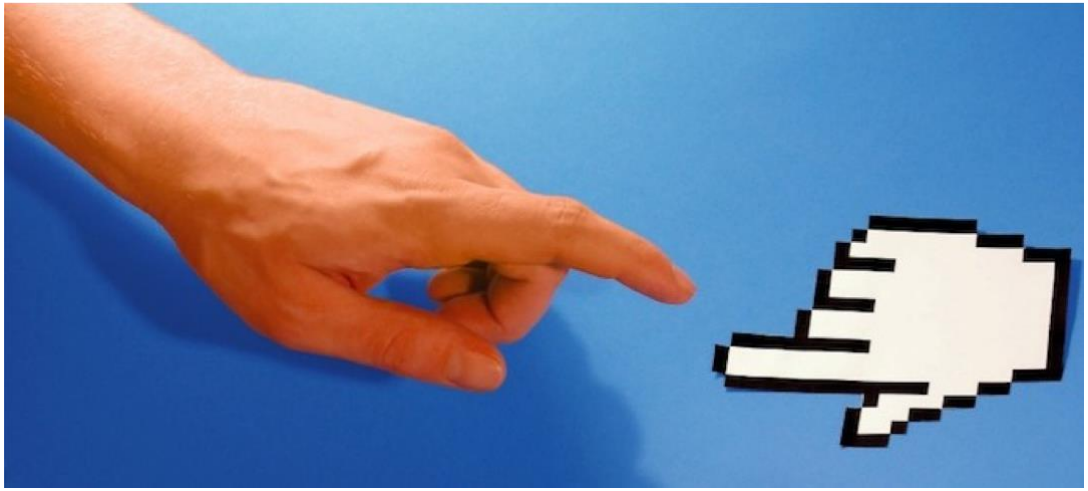
Retrospective

In General and for Uberization and Industry 2030

The rise of digital technology does not spell the end of manufacturing for industrial companies.

"We've never had as many physical products around us as we do now that we live in a virtual world."

Interview with C. Pardo, B2B and B2C Marketing Expert



Current Trends

In General and for Uberization and Industry 2030

- **Downstream, there is a return to physical and local retail, but digitized**
  - Urbanization–local retail => short-distance **crowdshipping trends**.

    e.g., startups and express carriers => Deliver.ee; Colisweb
  - Digitizing the physical store ("phygital") currently under development => an emerging model in the industry: there is not yet a clearly established "**phygitalization**" model, leaving room for multiple opportunities.

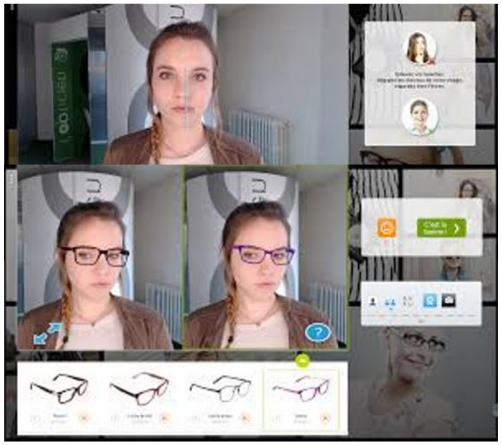
    e.g., the phygital optician Evioo, Made.com

- **Key Players**

Startups and pure-players are investing in omnichannel retail and crowdshipping (e.g., Amazon My Way, Amazon Flex, Google Express, Uber Rush, Alibaba);

Industrial buyers are embracing e-commerce, but French SMEs are still lagging behind. Only 19 percent were engaged in e-commerce in 2017 (Harris Research Firm).

Examples of the Phygital Model



The customer stands in front of an interactive mirror that uses digital technologies (body shape recognition, virtual styling, and augmented reality) to suggest glasses they will like.





Current Trends

In General and for Uberization and Industry 2030

- **Logistics: Optimizing the supply chain (SCM)**
- **Even greater agility and transparency through technology**
  - Investment in new technologies—AI, blockchain, robotics, drones, and immersive technologies (AR, VR, etc.)—for greater agility and security
  - Adidas & 3D printer; Carrefour's Auvergne Chicken & blockchain
- **Electric, autonomous transportation** => Cubyn and Navya
- **Usage- or functionality-based economic model** => changes to the supply chain
- **Michelin (pay-as-you-go tires)** Pay-as-you-go inventory

Upstream/Downstream: a network-based approach through the value chain with no distinction between upstream and downstream and the coexistence of multiple solutions => pushing back against GAFA.

3. Summary of Prospective Exploration

Major Trends / Constants

- The persistence of B2B and distribution intermediaries, which are reinventing themselves and adapting with an approach that is closer to the end consumer.
- Environment: oil prices and the rise of new energy sources are impacting transportation (distribution and delivery activities in logistics).
- Challenge for the consumer, priority on value (price, delivery speed, and quality), which positions logistics as an essential activity.

Seeds of Change

- Blockchain and supply chain: New startups are developing solutions based on blockchain technology (e.g., Tilkal and Cloud Logistics to improve supply chain traceability).
- C2C trends driven by manufacturers => Food and beverage (Coca-Cola, Ice Tea); Sports (Adidas and the Alphaedge 3D).
- Impact on transportation, supply chain agility, and a direct connection with the consumer.

Disruptions

- Consumers turning away from digital transformation.
- Integration of platforms by manufacturers (or through partnerships).
- Blockchain, a disruptive technology => a way to “Uberize” Uber
- Disappearance of HR in warehouse (robot) and in transportation (independent contractors).

Uncertainties

- Crowdshipping: feasibility in long distance? Capacity for control and coordination of the “crowd”?
- How are mid-sized companies positioning themselves in the face of digital/phygital commerce (expertise, investment)?
- The lack of a comprehensive approach among the various supply chain players => how will the world of tomorrow coordinate?
- Uncertainty regarding logistics and marketing skills amid AI integration in supply chain management (SCM) => Shortage of logistics managers–what skills will be needed in the future?
- How will consumer behavior change in the future, and how will it impact the supply chain?

Controversy

- Crowdshipping => the role of intermediaries (logistics service providers and wholesalers) and manufacturers? Passive recipients or active participants?
- Disappearance of physical channels, the all-digital era, and thecomplete disintermediation.
- How should the value chain be coordinated? By a dominant player or collectively?
- Issues of transparency, accountability, and data security.



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