

MGT 528 – OPERATIONS: ECONOMICS & STRATEGY

Thomas A. Weber

1. *Origin and Scope of Logistics & Operations*

Autumn 2022

École Polytechnique Fédérale de Lausanne
College of Management of Technology

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INFRASTRUCTURE

My Coordinates

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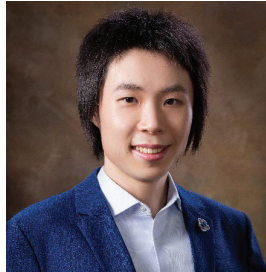
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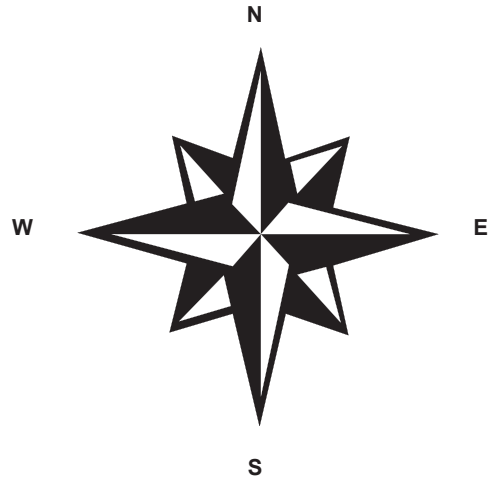


TEACHING TEAM

Your Course Assistant – A Great Resource!

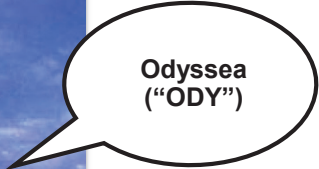
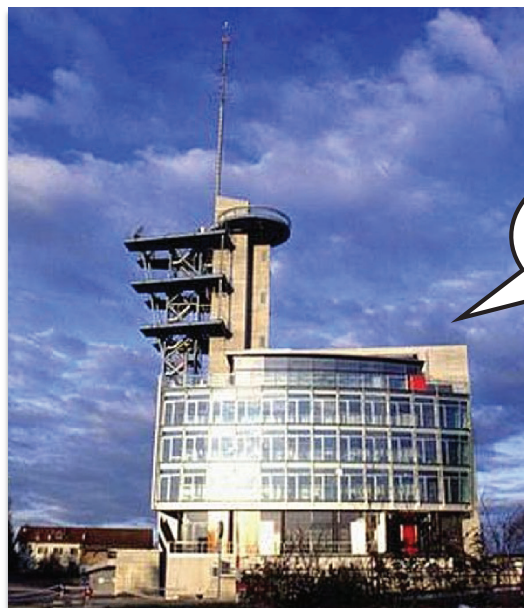


Jun



TEACHING TEAM (Cont'd)

Our offices are here ...



... come to office hours!

INFRASTRUCTURE (Cont'd)

Course Material & Information

- **Course website:** <http://econspace.net/MGT-528.html>
Access to content may require login
Student ID: 528student
- **Required text**
 - There is no required text; syllabus lists optional texts; all notes & readings will be posted
- **Access to spreadsheet & math software (e.g., MS Excel, Matlab, Maple) useful for some homework**
- **Links to general and supply-chain-management-specific information on course website**

Honor Code(!)

ADMINISTRIVIA

Did we forget anything?



ASSESSMENT

- **PROBLEM SETS** (20%)
 - Reproductive & productive questions
 - Case questions and mathematical modelling
 - Cooperation ok!! (need to acknowledge your teammates); assignments need to be written up & turned in individually
- **FINAL EXAM** (40%)
 - Held in the exam period in January 2023; there is no makeup (any arrangements by December 1)
 - 2-3 hours (closed-book, two double-sided handwritten sheets permitted)
 - Covers everything discussed in the course, except the 2022 team projects
- **PROJECT** (40%)
 - Report due on Friday, Dec 9 – Milestones due on Oct 12 [Idea(s)] and Nov 16 [Proposal]
 - Presentation on Dec 14 (slide template will be distributed) + POSTER
 - Teams of 2-3 students
 - This year: Best Project will be awarded the 10th Deloitte OES Prize!

2021 OES PRIZE (SPONSORED BY DELOITTE SINCE 2013)

Winners: Arsenii GAVRILENKO / Nils HASSELMARK / Hugo PARENT-LEDUC
(«Co-Working Cafeteria: The Data-Driven Transformation of Cafeteria Niki»)



↑
Sabrine Boumelala
Consultant, Deloitte

↑
Quentin Le Guennec
Manager Human
Capital, Deloitte

↙
Edmond Toutoungi
Manager Supply Chain
& Operations, Deloitte

EPFL DIMENSIONS ARTICLE (2022)

Infoscience. Provides open access to EPFL research

Infoscience is EPFL's open-access archive of research publications. It was set up in 2004 in order to disseminate our research findings.

Infoscience is a key element of the open-access landscape. Several other leading platforms link to it, such as OpenAIRE — a

Campus



Sabrina Boumeala (Deloitte), Arsenii Gavrilenko, Quentin Le Guennec (Deloitte), Edmond Tootong (Deloitte), Nils Hasselmark, Hugo Parent-Leduc, Thomas Weber (EPFL)

A CAFETERIA REINVENTED BY STUDENTS

Prize. For the 9th consecutive year, the Deloitte OES Prize has been awarded students in management, technology and entrepreneurship for the analysis of potential operational improvements for a SME, this year a cafeteria on campus.

Sixteen teams presented their projects to the Deloitte OES Prize jury during a meeting on campus in December 2021. Both Professor Weber's curriculum and the Deloitte OES Prize confront students with the economic reality of companies to create in-depth operational analyses.

The first prize was awarded this year to Arsenii Gavrilenko, Nils Hasselmark and Hugo Parent-Leduc, for their project entitled "Co-Working Cafeteria: The Data-Driven Transformation of Cafeteria NIKI." The project analyzed the heterogeneous customer demand during a typical day. More than 600 survey responses highlighted three main activities, namely lunch, coffee break and study. The team then correlated Google Maps user data with actual occupancy to come up with a forecast of demand at the Niki Cafeteria. The team's recommendations included a transformation of the restaurant's layout, new ideas for its digital marketing, and suggestions to offer more off-the-shelf products. ■■■



Behind the Infoscience database, there's also a vast array of services offered by the EPFL Library. Our Infoscience support team answers questions related to filing publications (e.g., rights and license issues) and to technical issues like how to enter data and generate lists of publications. We also make sure the bibliographic data are reliable so that each publication is correctly indexed and cited.

PHOTO: ESTROCK D&E



Spring 2022

PHOTO: ESTROCK D&E



Source: EPFL Dimensions, No. 4 (Spring 2022), p. 49.

COURSE PROJECTS (2020)

- **Les Arches (Outdoor Bar)** (*Staff Scheduling; Space & Cost Optimization*)
- **Madame Sum (Dark Kitchen)** (*Inventory Management / Delivery Area Optimization*)
- **AI Sacco (Restaurant)** (*Product Portfolio Analysis / Inventory Optimization*)
- **Catering at EPFL (Central Admin)** (*Catering Oversight Strategy for Sustainable Restauration*)
- **Le Central (Restaurant)** (*Inventory Management / Delivery & COVID Adaptation*)
- **Tea DC (Online Retail)** (*Pricing / Production / Sales Strategy*)
- **Hotel du Crêt (Highway Stop)** (*Product Portfolio Analysis / Inventory & Capacity Manag.*)
- **Sucré Salé (Sandwich Shop)** (*Inventory Management / Price Optimization*)
- **Pepper Jack * (Restaurant)** (*Demand / Queuing / Delivery Service Analysis*)
- **EpiLibre (Mobile Grocery Shop at EPFL)** (*Price Discrimination / Inv. Mgt. / Ordering Process Opt.*)
- **The Door (Escape Room)** (*Demand Analysis / Pricing / Booking Process Opt.*)
- **Deppeler (Dental Equipment)** (*Stock Management / Optimization of Product Flow*)
- **Handball Club Minibar** (*Demand Analysis / Pricing / Inventory Management*)
- **Cocooning Nature (Online Retail)** (*Demand Analysis / Shipment Packaging Optimization*)
- **Girod Médias (Billboard Rental)** (*Inventory Management / Business Strategy*)
- **Terre Vaudoise (Fresh Produce)** (*Bike Delivery Optimization / Supply-Chain Strategy*)
- **Ras Beyrouth (Restaurant)** (*Stochastic Demand Modelling / Price Optimization*)
- **La Perle Bleue (Pharmacy in Morocco)** (*Demand Analysis / Product Portfolio / Inventory Mgt.*)

COURSE PROJECTS (2021)

- **Stendiamo Pizza (Online Pizza Dough)** (*Demand Analysis / Marketing Strategy*)
- **Labs Medi-Rochex (Disinfectant Gels)** (*Inventory Management / Multiproduct Pricing*)
- **L'Impression Café (Restaurant)** (*Intra-day Demand Analysis / Inventory Optimization*)
- **Natural American Sandwiches (Food)** (*Product Portfolio / Inventory Management / Expansion*)
- **DINOI Newstand (Newsvendor)** (*Analysis of a Complicated "Real" Newsvendor in Torino*)
- **Li Beirut (Food Truck)** (*Weather-Based Demand Forecasting / Inventory Mgt.*)
- **LeGram (Restaurant)** (*Price Discrimination / Inventory Management*)
- **Veterinary Clinic (in France)** (*Inventory Management and Price Optimization*)
- **Trigo (Bakery in Lausanne)** (*Demand, Queuing, and Delivery Service Analysis*)
- **Yoga Flame (in Lausanne & Geneva)** (*Competitive Analysis / Subscription Pricing / Capacity Mgt.*)
- **DELISS (Vending Machines @ EPFL)** (*Product Portfolio / Inventory Management*)
- **Point Vélo (Bike Repair @ EPFL)** (*Order Management / Matching Staffing with Demand*)
- **Cafeteria Niki * (@ EPFL)** (*Customer Segmentation / Layout Design / Digital Marketing*)
- **Blondel Chocolatier (in Lausanne)** (*Omnichannel Strategy / Inventory Optimization*)
- **Cave Constantin-Stoffel (in Valais)** (*Price Optimization / Distribution / Vehicle Routing*)
- **Prodega (Restaurant Supplies)** (*Bike Delivery ... Strategy*)

TEAM PROJECT

The team project = integral part of the course, complements course material

- Team = **2-3 students**
- Each team should submit a report of **at most 15 pages** at the end of the semester
- Project should take a real-life company and analyze **how the firm's supply-chain management could change by an innovative use of information, including an assessment of bottom-line impact**
- Describe the status quo and attempt to **quantify the benefits and costs of the conceptual supply-chain/operations innovation** (e.g., on a per-product basis)
- Precise numbers are not as important as a clear justification of the result
- The team should **analyze the sustainability of a competitive advantage** derived from such the supply-chain innovation

Key Dates

- Oct 12: **Team-Project Idea** (1 page per idea; target: 1 idea per team member)
- Nov 16: **Team-Project Proposal** (3 pages, submit electronically)
- Dec 9 (Fri): **Project Report** (max 15 pages + Appendix, submit electronically by 17h)
- Dec 13 (Tue): **Poster & Presentation Slides** (both electronically by 23h59)
- Dec 14: **Slides** (3 **hardcopies** for judges, provided there is a physical event)

AGENDA

What are Logistics & Operations?

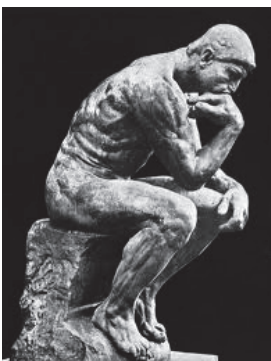
The Supply Chain – Basic Concepts

The Supply Chain – Strategic Issues

Key Concepts to Remember

ORIGIN OF THE WORD LOGISTICS – COURSE OBJECTIVE

Logistics = Logos (λογος: word, language) ~ Logistiki (λογιστική: financial organization)



Definition:

1. **Logistics** is the management of the flow of goods between a point of origin and a point of use.
2. A **supply chain** is a system of agents and resources to move a product or service from a supplier to a customer.

In this course, we are concerned with supply-chain management, design, and the strategic use of information to achieve competitive advantage in various settings.

MILITARY LOGISTICS

Some Words of Wisdom

- "The line between disorder and order lies in logistics ..." - **Sun Tzu**
- "My logisticians are a humorless lot ... they know if my campaign fails, they are the first ones I will slay." - **Alexander the Great**
- "There is nothing more common than to find considerations of supply affecting the strategic lines of a campaign and a war." - **Carl von Clausewitz**
- "Logistics is the ball and chain of armored warfare." - **Heinz Guderian**
- "Amateurs talk about tactics, but professionals study logistics."
- **Gen. Robert H. Barrow, USMC** (Commander of the Marine Corps)

MGT-528 COURSE OUTLINE

Tentative – Your Input is Welcome

1. Origin and Scope of Logistics & Operations
2. Supply-Chain Coordination
3. Strategic/Tactical/Operational Decisions
4. Performance Metrics
5. Inventory Management
6. Dealing with Risk
7. Information Sharing and Enabling Technologies
8. Cooperation and Relational Contracts
9. Sourcing Decisions and Contracting

AGENDA

What are Logistics & Operations?

The Supply Chain – Basic Concepts

The Supply Chain – Strategic Issues

Key Concepts to Remember

SUPPLY-CHAIN MANAGEMENT – OVERVIEW

- 1. Supply What?**
- 2. Managing Supply**
- 3. Manufacturing and Operations**
- 4. Transportation and Logistics**
- 5. Retail and Marketing**
- 6. Supply-Chain Integration**
- 7. Global Issues**
- 8. Sustainability and Social Responsibility**
- 9. Business Processes**
- 10. Performance Metrics**
- 11. Quality Management**
- 12. Information Technology**

1. SUPPLY WHAT?



Question: What may be the margin on a bottle of mineral water?

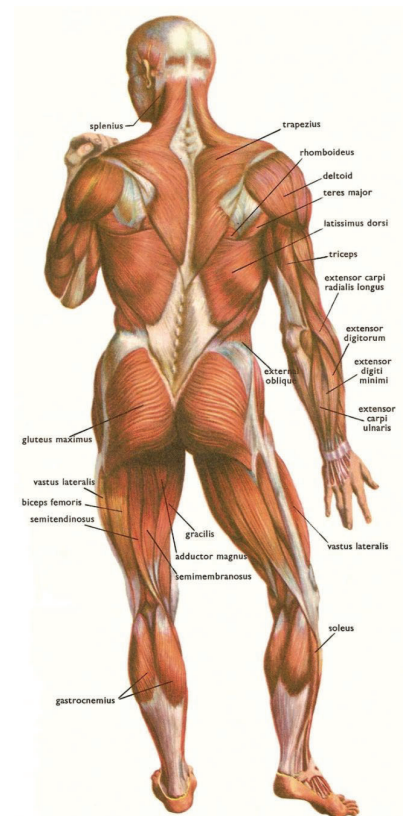
2. MANAGING SUPPLY

Feuerstein: « You are what you eat »

Healthy body needs healthy nutrients ...

Question: What does that mean if body in this analogy is a supply chain?

Hint: You can think of a firm as being one element in a nexus of contracts ... what should the supply-chain manager do?



3. MANUFACTURING AND OPERATIONS



Question: What are the critical criteria when designing a fast-food experience?

4. TRANSPORTATION AND LOGISTICS



Question: What are some of the considerations for the logistics of electronic components (e.g., electric fuses) in Switzerland?

Examples: Conrad (www.conrad.ch) or ELV (www.elv.ch)

4. TRANSPORTATION AND LOGISTICS



Question: What are some of the considerations for the logistics of electronic components (e.g., electric fuses) in Switzerland?

Examples: Conrad (www.conrad.ch) or ELV (www.elv.ch)

4. TRANSPORTATION AND LOGISTICS

ELV Versandbestätigung, KD: 21116488 from ELV-Team to you Aug 22

Kompetent
in Elektronik

Versandbestätigung Ihrer Bestellung vom 10.08.2013
 Vorgangsnummer: 909276900 • Kundennummer: 21116488

Sehr geehrte Damen und Herren,

hiermit bestätigen wir Ihnen, dass wir Ihre Bestellung mit unserer Vorgangsnummer [REDACTED] heute am 22.08.2013 an unseren Logistikpartner übergeben haben.

Damit sind aus Ihrem Auftrag folgende Positionen versendet:

5 x	68-00 85 33	Sicherung 0.25A, 5x20mm, träge 1 Stück
1 x	AP-10 97 66	Dankeschöngutschein CH

12 Days to start shipping ...

4. TRANSPORTATION AND LOGISTICS

Ihre Bestellung					
5	x	68-00 85 33	Sicherung 0.25A, träge je 5x20mm 1 Stück	0,11	CHF* = 0,55 CHF* sofort versandfertig**
			Warenwert 0,55 CHF*		
			Transportkostenpauschale 8,70 CHF		
Verpackungspauschale (0,94% des Warenwerts ohne Gutscheine oder Online-Artikel)			0,01 CHF		
Gesamtpreis incl. gesetzl. MwSt. und Versandkosten 9,26 CHF					

About 94.1% of total price related to logistics & transportation ...

5. RETAIL AND MARKETING

Consumers typically buy at retail stores.

Question 1: What goes into an outstanding retail experience?



Question 2: How do the insights carry over to a first-class banking experience, or an excellent hospital experience?

6. SUPPLY-CHAIN INTEGRATION

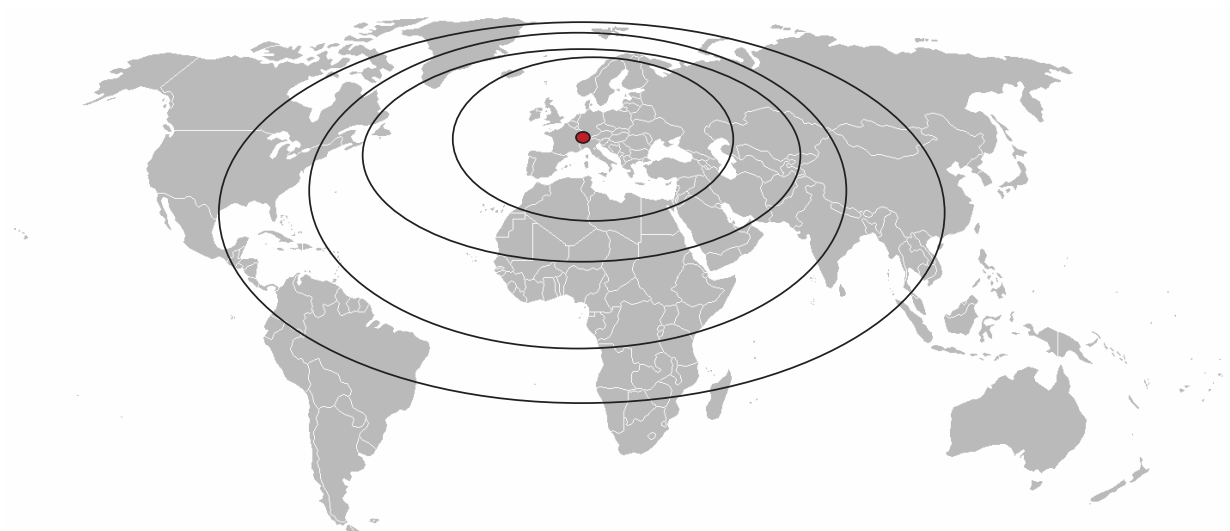
Supplier → Manufacturer → Distributor → Retailer → Customer

Individual stages of a supply chain are interconnected. Stages cannot be optimized individually.

Question: What do you think are the key issues when trying to integrate a supply chain to deliver a product, say, soap bars or dishwashing liquid globally?



7. GLOBAL ISSUES



Question: Imagine that you figured out a way to make cheap solar cells here in Lausanne. What would be the key issues to expand operations internationally?

EXAMPLE: EVEN BIG COMPANIES FACE GLOBAL ISSUES

September 9, 2014



A screenshot of the CNN website homepage. The top navigation bar includes 'Home', 'Video', 'World', and 'U.S.'. The main headline reads 'Plus grand que grand' with the subtext 'Disponible à la commande à partir du 26 septembre.' To the right, under 'THE LATEST', there is a list of news items, with one item highlighted: '4 million new iPhones sold in first day'.

8. SUSTAINABILITY AND SOCIAL RESPONSIBILITY

Question: What are the key issues for a car manufacturer when considering sustainability and social-responsibility issues for its supply chain?



9. BUSINESS PROCESS

Supplier → Manufacturer → Distributor → Retailer → Customer



Question: What business process do you trigger when you order a book from Amazon.com?

10. PERFORMANCE METRICS

Question 1: What information would be needed to decide if a soccer player is a good player, without being able to watch him play?



Question 2: How can we measure the performance of a supply chain?

Supplier → Manufacturer → Distributor → Retailer → Customer

Question 3: What is the motivational role of supply-chain metrics?

11. QUALITY MANAGEMENT

Question 1: What is the right concept of quality for a cell phone?



Question 2: What has the concept of « weakest link » to do with the answer to the last question?

11. QUALITY MANAGEMENT

Operational Risk

A screenshot of a TIME magazine article. The header shows the TIME logo and navigation options: LATEST, MAGAZINE, VIDEOS, and a search icon. The article is categorized under BUSINESS COMPANIES. The main headline reads "Samsung Stock Plunges Amid Massive Galaxy Note 7 Recall". Below the headline, the author is listed as "Se Young Lee / Reuters" and the date is "Sept. 12, 2016". There is a small icon of a smartphone next to the headline.

11. QUALITY MANAGEMENT

Operational statistics/
Learning?



TECH

Galaxy S3 Explodes, Injuring Woman: Report

© 07/10/2013 02:16 pm ET | Updated Jul 11, 2013

18-year-old Fanny Schlatter was at work, carrying her cellphone in her pocket when her [Samsung Galaxy S3 reportedly exploded](#), Le Matin reports.

Schlatter, who lives in Switzerland, suffered severe burns on her leg and her [pants had to be torn off](#). Samsung Switzerland is reportedly taking the incident "seriously."

This is the third incident of an allegedly exploding Samsung product in the past two years. (...)

12. INFORMATION TECHNOLOGY

Question: What information should/could be shared across a supply chain for Dell laptop computers?



EXAMPLE: IT IMPROVEMENT WITH UNEXPECTED SIDE EFFECTS

Largest professional music equipment retailer in Europe – September 18, 2017

CONTACT & SERVICE HELP CENTRE OUR PHILOSOPHY **thomann** 30 DAYS MONEY BACK REPAIR SERVICE 3 YEARS WARRANTY

Search Menu Hot Deals Top Sellers Bargains New Products AU AUD [User Icons]

Guit/Bass Drums Keys Studio Software PA Lighting DJ Microphones Signal Proc. Brass Traditional Sheet Cases Cables Accessories

Please note: We have recently installed new shipping software and regret to inform you that we are experiencing shipping delays of **7-10 days** in our warehouse. [Info](#)

Welcome to Thomann ...
In Europe's biggest music shop you will find everything about **musical instruments, studio-, light-, and sound technology**.
We have the most popular brands, low-priced alternatives as well as many free extras for musicians.

Roland FP-30
from AUD 700

3 Year Thomann Warranty 30 Day Money Back Guarantee AUD 75 shipping costs Europe's Largest Warehouse Europe's Biggest Service Center Highest Payment Security

Our Categories

- Guitars and Basses
- Drums and Percussion
- Keys
- Studio and Recording Equipment
- Software
- PA Equipment
- Lighting and Stage
- DJ Equipment

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AGENDA

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The Supply Chain – Basic Concepts

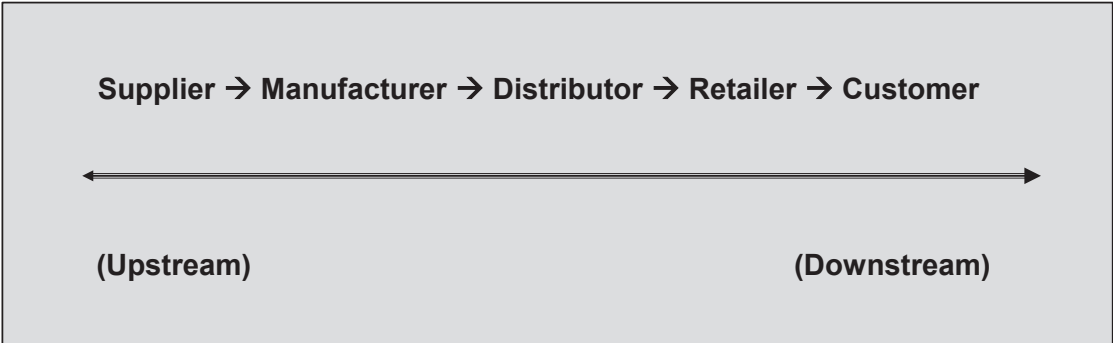
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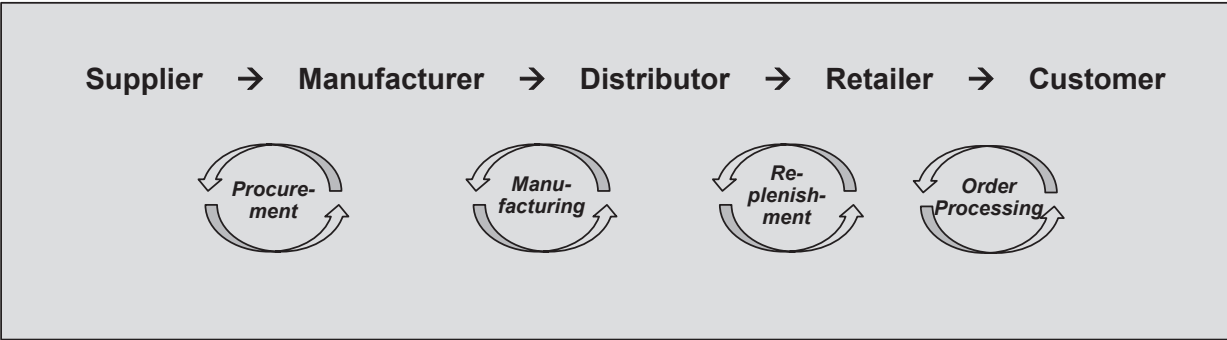
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SUPPLY-CHAIN STAGES

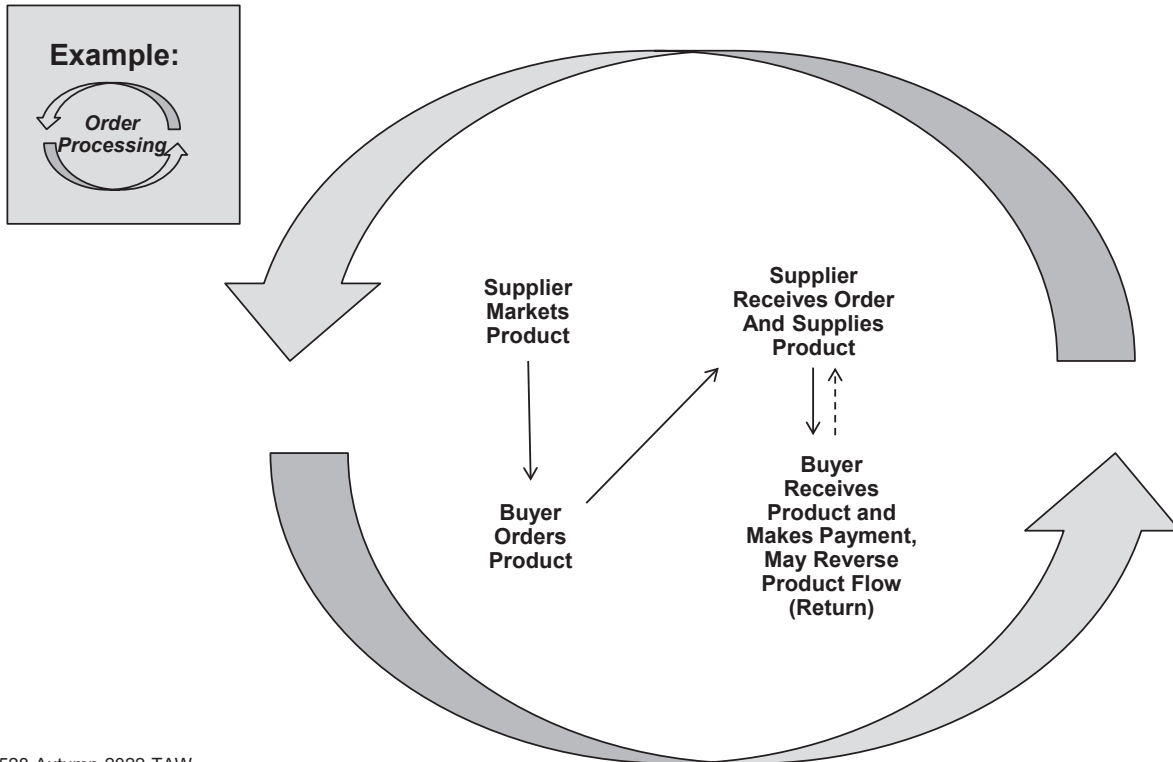


SUPPLY-CHAIN STAGES LINKED BY PROCESS CYCLES



Question: Using the above naming convention, is the cycle of a given supply-chain relationship uniquely determined?

EACH PROCESS CYCLE CONTAINS SUBPROCESSES



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SUPPLY-CHAIN PROCESSES CAN BE 'PUSH' OR 'PULL'

Definition:

1. A **pull process** is *reactive* in the sense that it is initiated (and therefore reacts to) customer demand
2. A **push process** is *speculative* in the sense that it anticipates future demand by customers (e.g., based on a forecasting model)

Question: Which standard supply-chain processes are most likely pull processes and which are most likely push processes?

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SUPPLY-CHAIN PROCESSES CAN BE 'PUSH' OR 'PULL'

Examples



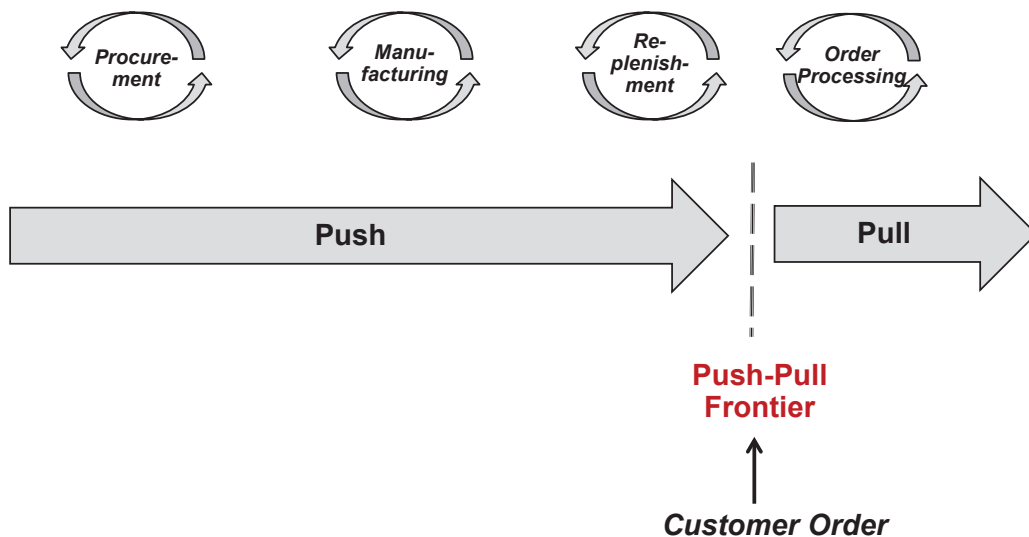
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PUSH-PULL FRONTIER TYPICALLY WITHIN A SUPPLY CHAIN

Example 1: Standard Retail Operations

Supplier → Manufacturer → Distributor → Retailer → Customer

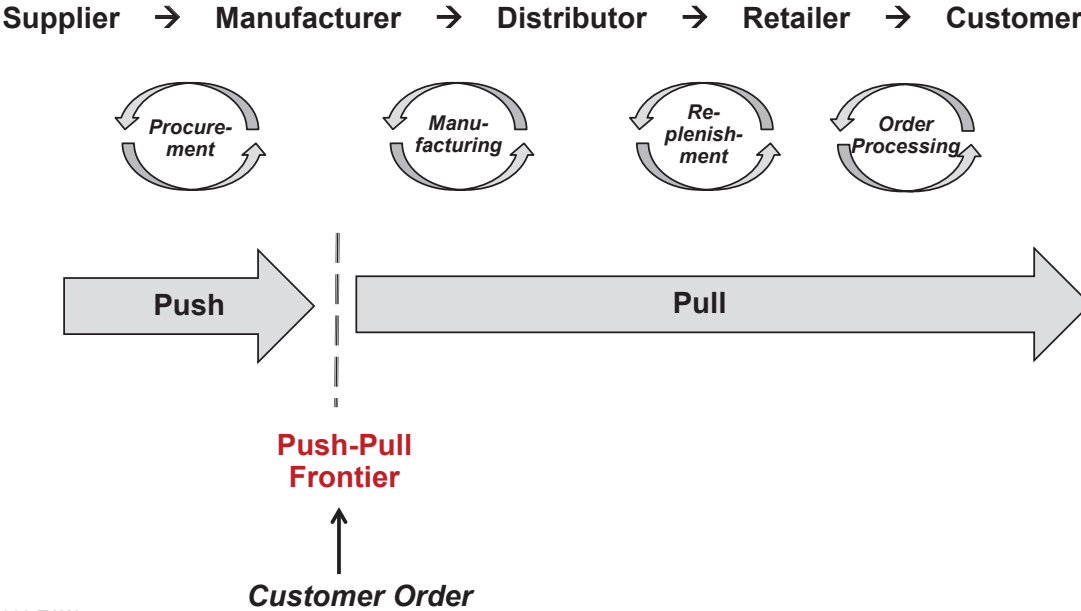


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PUSH-PULL FRONTIER TYPICALLY WITHIN A SUPPLY CHAIN

Example 2: Custom-Built Device



SUPPLY-CHAIN PROCESS CLASSIFICATION

Three Functional Categories

Supplier Relationship Management (SRM)

- Sourcing
- Negotiation
- Purchasing
- Design Collaboration
- Supply Collaboration

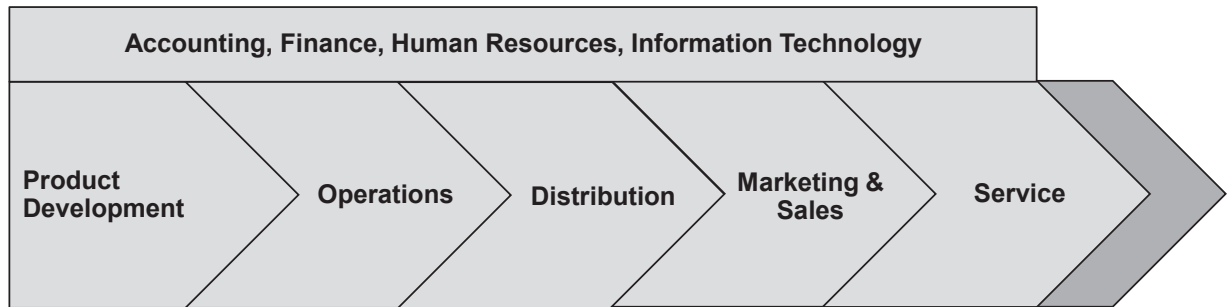
Internal Supply-Chain Management (ISCM)

- Demand Forecasting
- Product-Life-Cycle Planning
- Production Planning / Supply-Ordering/ Fulfillment
- Contingency Measures

Customer Relationship Management (CRM)

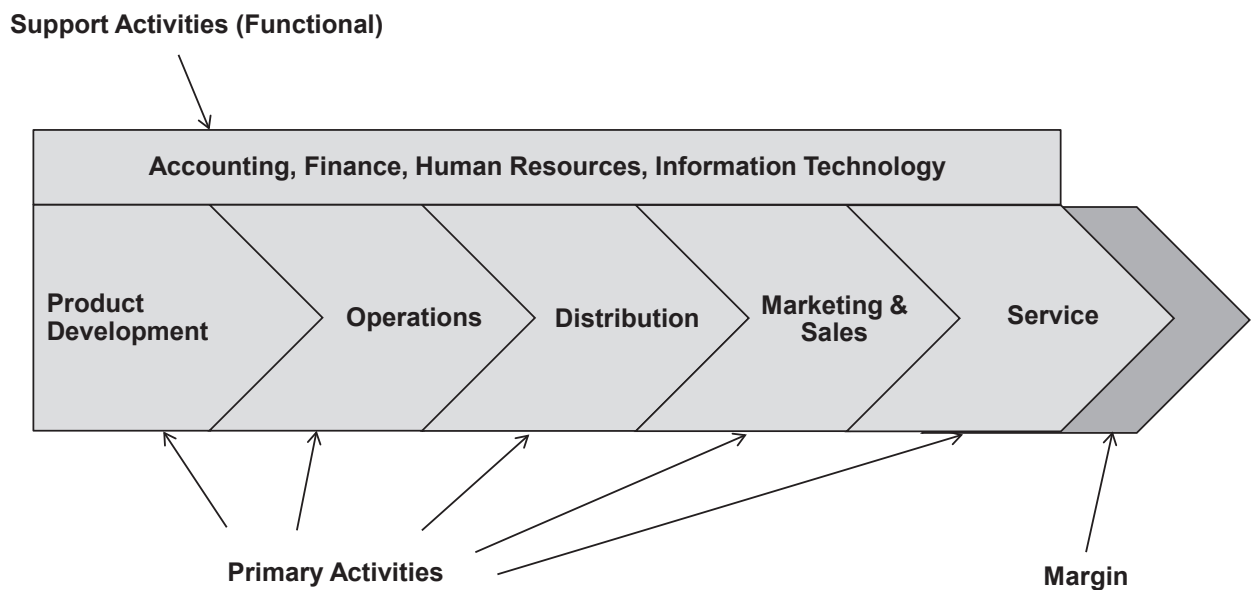
- Marketing
- Pricing
- Service Operations
- Order Processing
- Feedback Aggregation

THE VALUE CHAIN



Key Question: How can each stage in this chain add value for the customer?

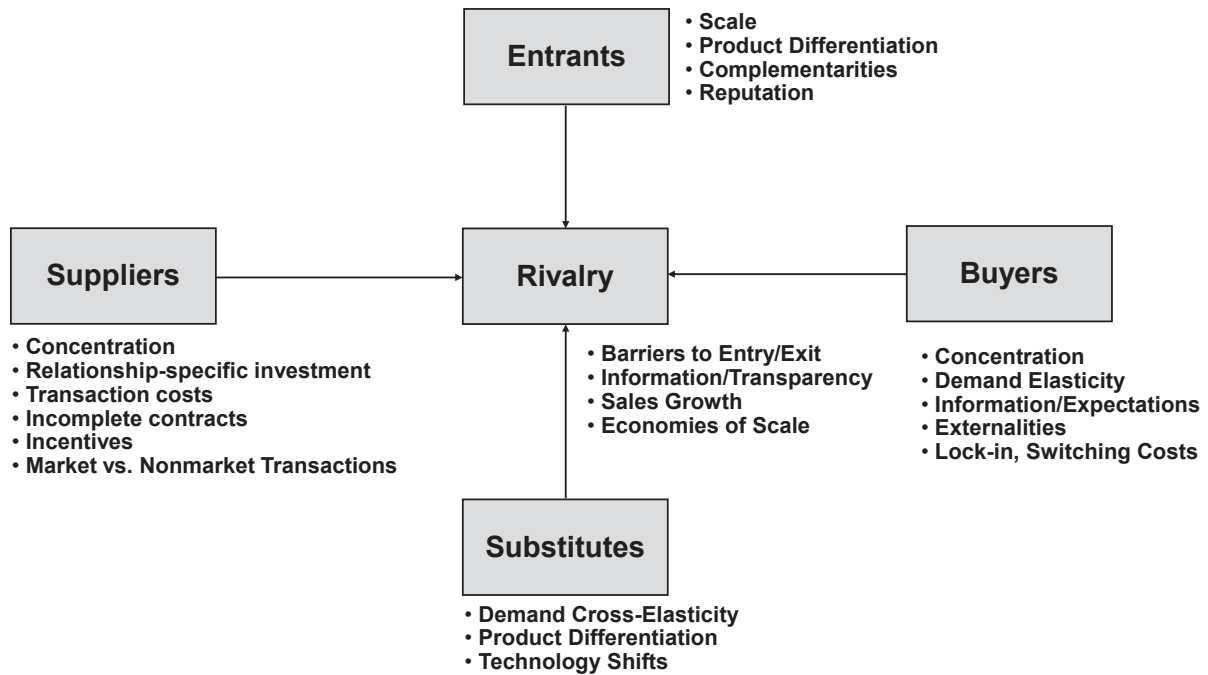
THE VALUE CHAIN (Cont'd)



Note: The Value Chain was popularized by Porter, M.E. (1985) *Competitive Advantage: Creating and Sustaining Superior Performance*, Free Press, New York, NY.

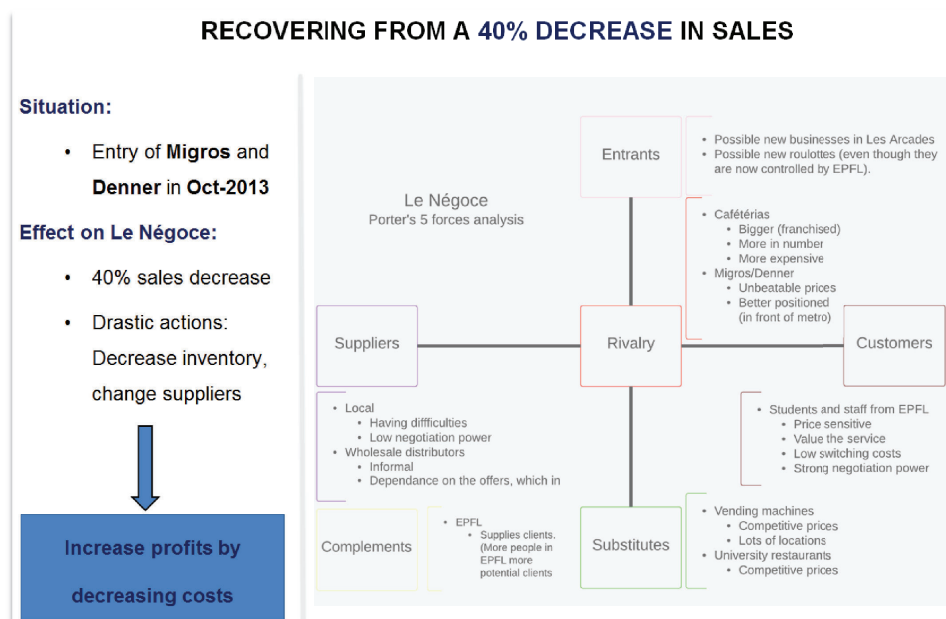
PORTER'S FIVE FORCES

... and what influences them

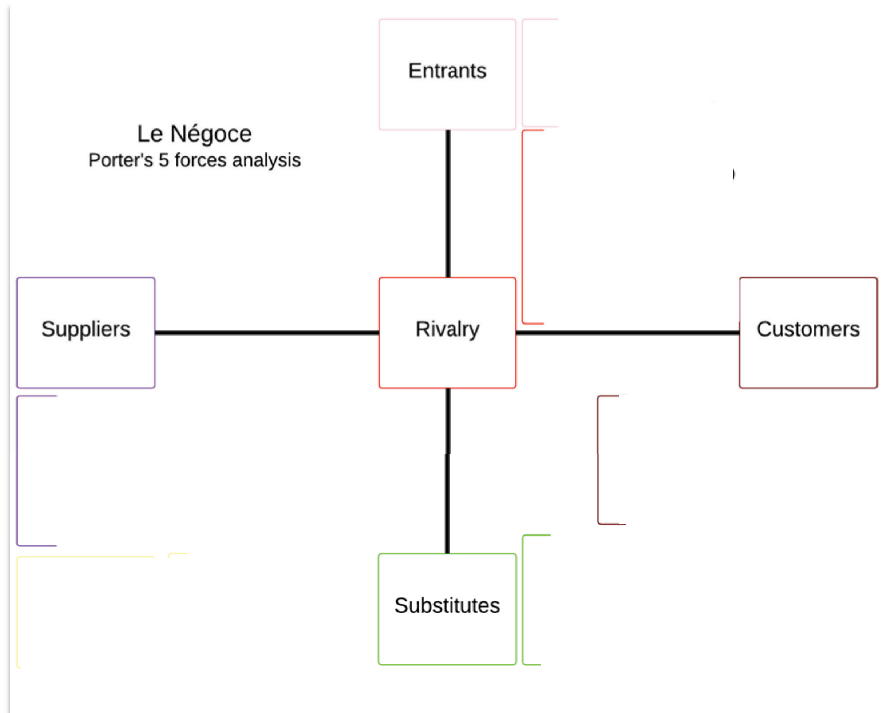


Note: For the original presentation of the Five-Forces Model, see Porter, M.E. (1980) *Competitive Strategy*, Free Press, New York, NY.

STUDENT PROJECT (2014): LE NEGOCE (at EPFL)



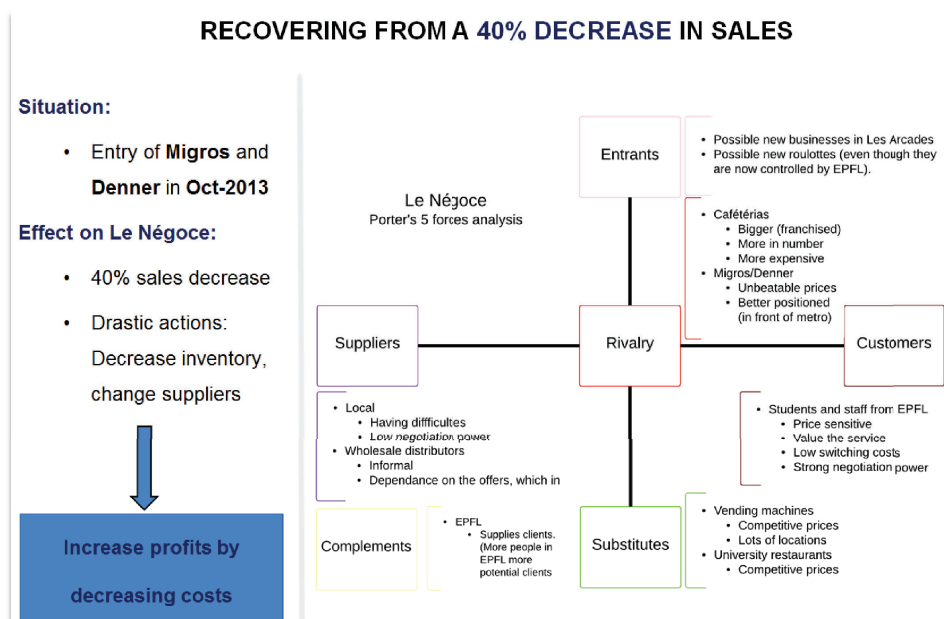
LE NEGOCE (Cont'd)



Source: Bansal, S., Guibentif, T., Solsona Bernet, M. (2014) "Le Négoce: Survival under Extreme Conditions," MGT-528 Course Project, EPFL, Lausanne, Switzerland.
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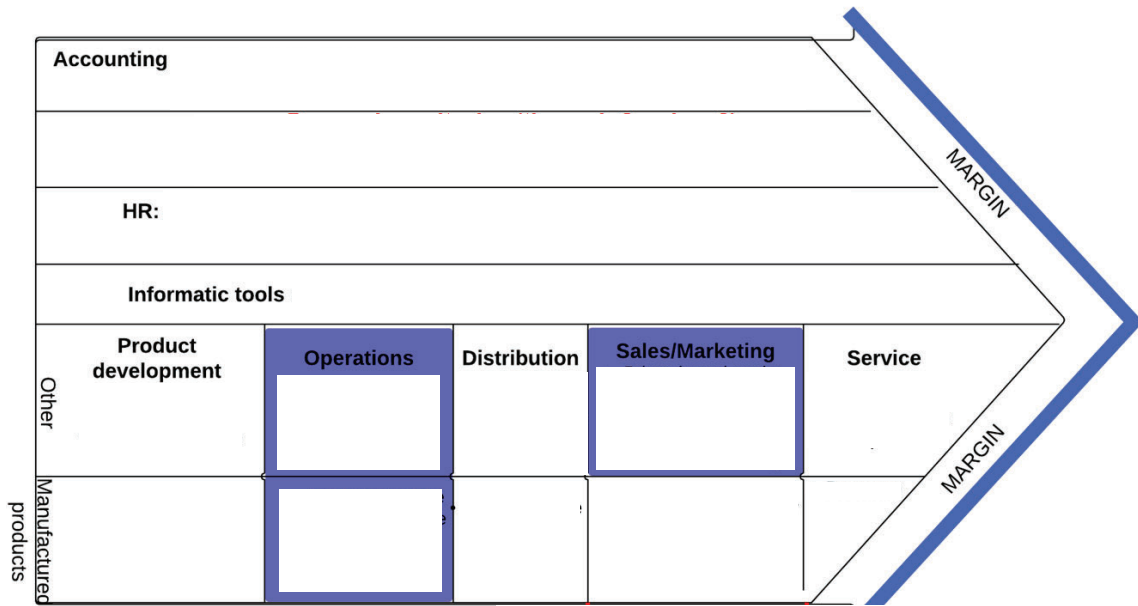
LE NEGOCE (Cont'd)



Source: Bansal, S., Guibentif, T., Solsona Bernet, M. (2014) "Le Négoce: Survival under Extreme Conditions," MGT-528 Course Project, EPFL, Lausanne, Switzerland.
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LE NEGOCE (Cont'd)

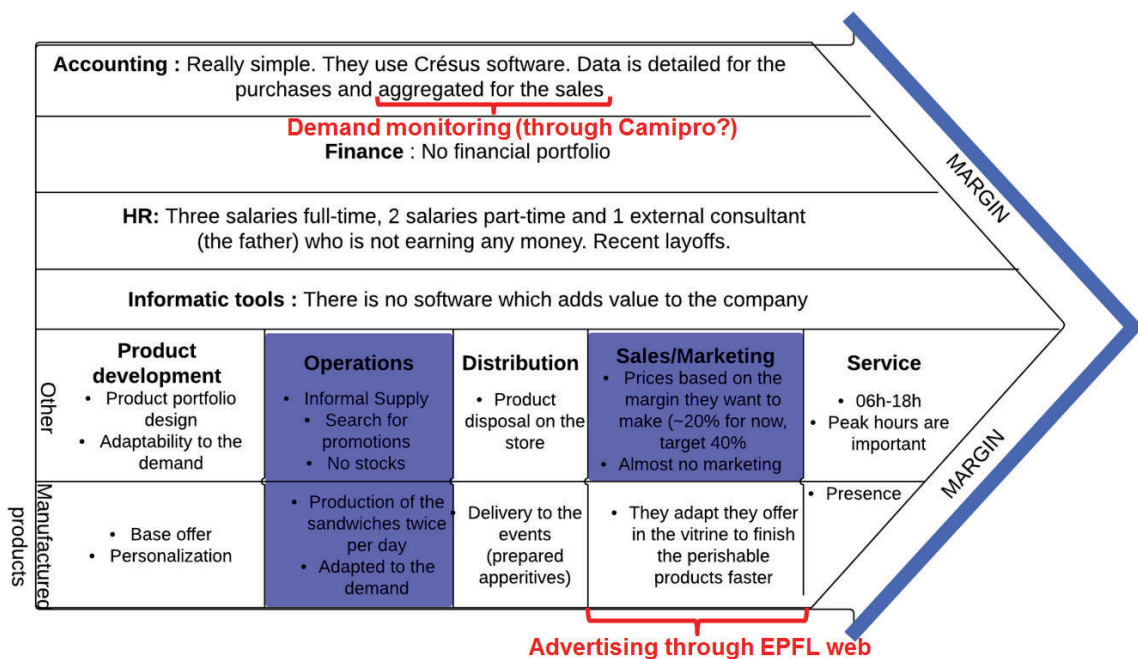


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LE NEGOCE (Cont'd)



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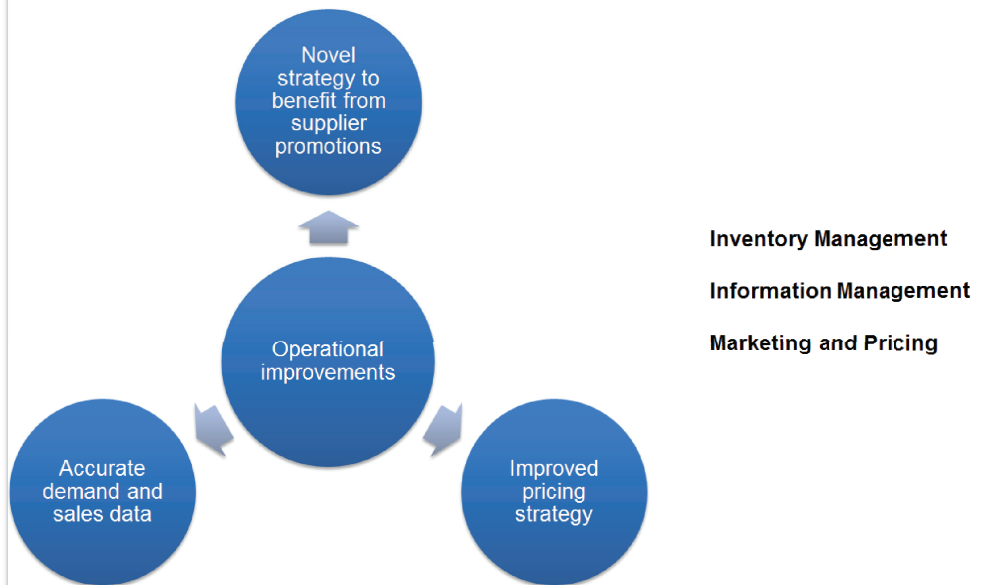
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LE NEGOCE (Cont'd)

CONCLUSION

Objective : Identify areas for operational improvement to tackle declining revenues

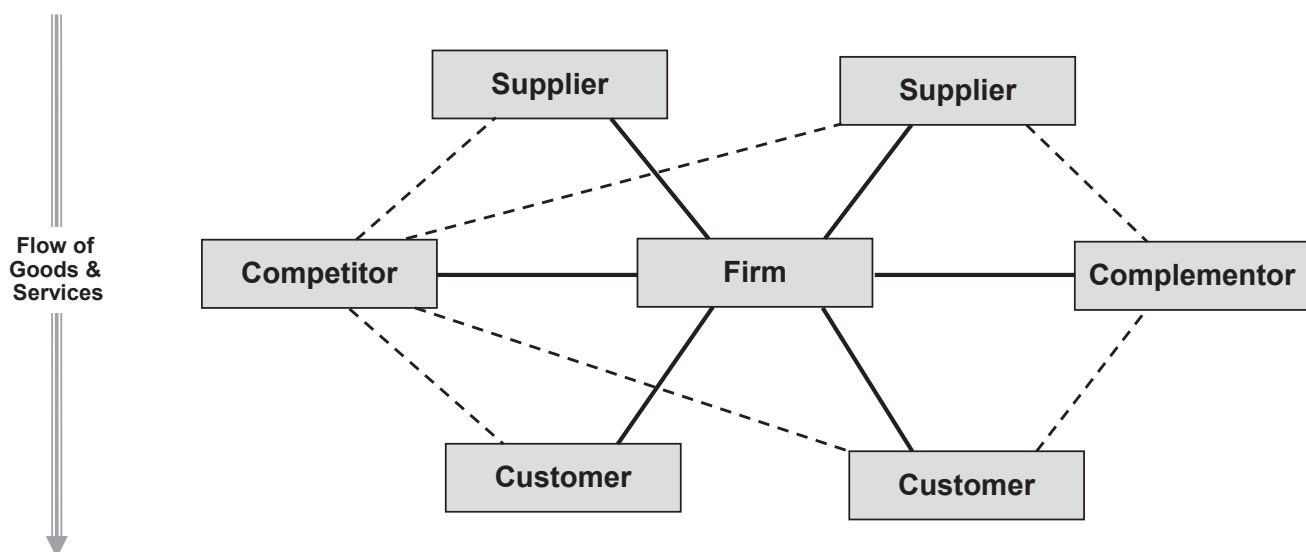


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BRANDENBURGER AND NALEBUFF'S VALUE NET The Firm and Its Network of Transaction Relationships



Note that the firm and its competitors/complementors can have relationships in many different markets at the same time ("multimarket contact")

Note: For the original presentation of the value net, see Brandenburger, A.M., Nalebuff, B.J. (1995) "The Right Game: Use Game Theory to Shape Strategy," *Harvard Business Review*, Vol. 73, No. 4, pp. 57—71. The presentation here is close to the one in McAfee, R.P. (2002) *Competitive Solutions: The Strategist's Toolkit*, Princeton University Press, Princeton, NJ, p. 25.

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SUPPLY-CHAIN DESIGN AND 'STRATEGIC FIT'

Definition:

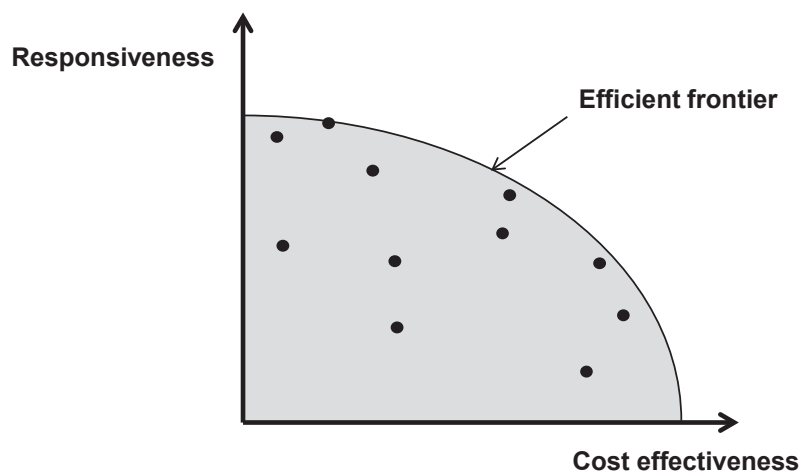
1. The **strategic fit** describes the degree to which an organization matches its resources with the opportunities available in its environment.
2. A (**corporate**) **strategy** is a contingent plan over a specified time horizon that takes into account events and actions by the corporation and the agents it interacts with
3. The **resource-based view** of the firm emphasizes the role that a firm's assets and capabilities (its resources) play in developing a **competitive advantage** (as manifested by supranormal profits, at least in expectation).

Corollary. Using the resource-based view, the strategic fit a firm achieves can be measured by the competitive advantage it is able (or expected to) attain.

Remark: Red-Queen Principle

STRATEGIC FIT: EXAMPLE Cost Effectiveness vs. Responsiveness Positioning

Consider the basic tradeoff between cost effectiveness and responsiveness of a supply chain

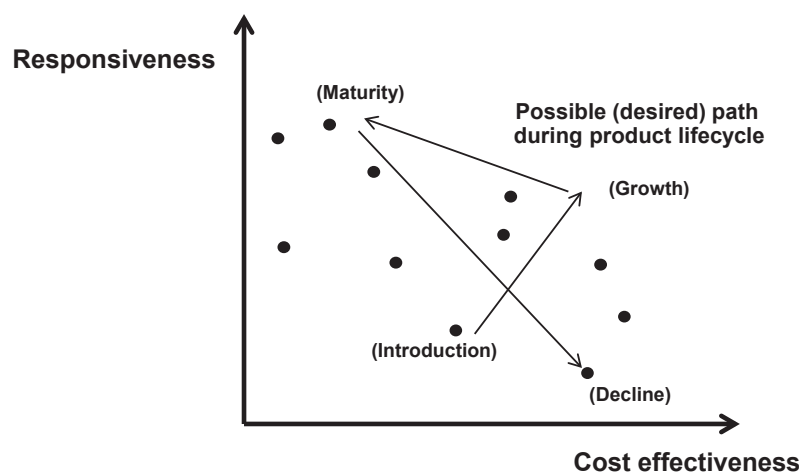


STRATEGIC FIT: EXAMPLE (Cont'd) Simple Analysis Steps

- 1. Environmental scan** (e.g., using Porter's five [+1] forces)
 - Competitors
 - Customers, including nature of demand (in terms of volume, dynamics, volatility, seasonality, etc.)
 - Substitutes
 - Suppliers
 - [Complementors]
- 2. Internal Scrutiny** – Understand the firm's resources
 - Human capital, physical assets, intellectual property, quality, service level, cost structure, location, consumer base, brand identity/reputation, etc.
- 3. Find Strategic Fit** – Design the firm's supply chain
 - Set a strategic goal using the output of the first two steps
 - Derive a strategy to get close to achieve the strategic goal
 - (Define tactical subgoals and introduce measures of progress)

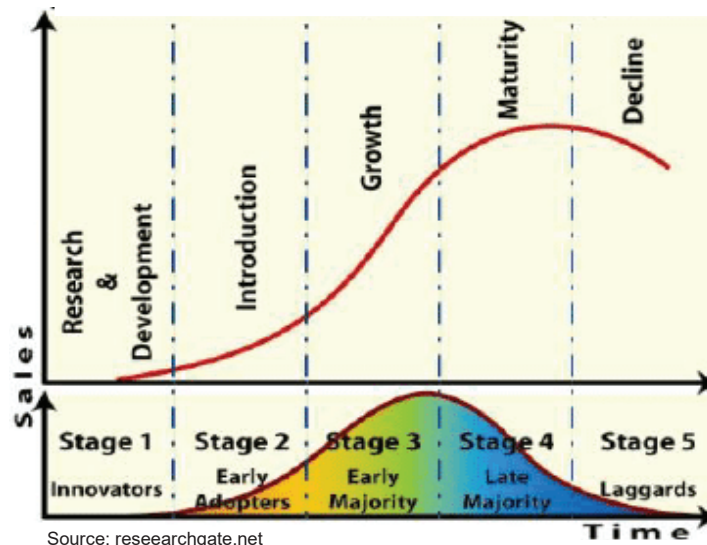
STRATEGIC FIT: EXAMPLE (Cont'd) Nonstationary Market Dynamics May Affect Fit

Standard **Product Lifecycle**: Introduction → Growth → Maturity → Decline



PRODUCT LIFE CYCLE

Nonstationary Market Dynamics



(1) For a dynamic model (logistic growth curve), see the following seminal contribution: Bass, F.M. (1969) "A New Product Growth Model for Consumer Durables," *Management Science*, Vol. 15, No. 5, pp. 215–227.

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AGENDA

What are Logistics & Operations?

The Supply Chain – Basic Concepts

The Supply Chain – Strategic Issues

Key Concepts to Remember

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KEY CONCEPTS TO REMEMBER

- **Standard supply-chain stages**
- **Upstream vs. downstream**
- **Process-cycle view of supply chains**
- **Push vs. pull processes**
- **Push-pull frontier**
- **Process classification (SRM/ISCM/CRM)**
- **Value Chain**
- **Support activities vs. primary activities**
- **Porter's Five Forces**
- **Brandenburger and Nalebuff's Value Net**
- **Strategic fit**
- **Cost-effectiveness vs. responsiveness tradeoff**
- **Effects of nonstationary market demand (e.g., driven by product lifecycle) on strategic fit**