Industry Analysis and Trends

Introduction

The globalization of formerly national economies, the pervasive role of the information and communication technologies, as well as the convergence of markets and sectors today affect most industries. Students of management of technology must understand how industries are structured, how they change, how they are affected by both technology and regulation, as well as how they interact with one another and evolve as a result of it.

In this context, industry analysis is about identifying the relevant environmental factors shaping an industry as well as about putting these factors into a logical framework. This will help one understand an industry’s structure, its main characteristics, the degree and nature of competition, as well as its evolution.

Course objectives

The purpose of this course is therefore to introduce the participants to the methods and approaches of analyzing industries and their trends. More precisely, the course will present and analyze different types of industries, discuss the question of business cycles, industry performance, industry evolution, as well as the influence of endogenous factors such as technology, economics (such as inflation, interest rates, labour markets, growth), public policies, and regulation.

The course will also offer an overview over the main concepts, tools, techniques, and methods, allowing the participants to analyze industries or sectors, as well as to assess their evolution, their performance, and their dynamics.

While the course focuses on the industry or the sector, the perspective of the course, i.e., the perspective from which industries and their evolution are being analyzed, is the one of the firm and the managers of the firm. It is indeed important for managers to be able to assess the broader industry or sector in which they are operating or into which they plan to expand, as it is important to be able to assess the profitability and possible evolutions of these industries. In this sense, industry analysis constitutes the basic foundation of a firm’s analysis of its competitive environment, its position within the industry, and its strategy.

Overview of content

In terms of content, the course will present the different approaches to industry analysis, as well as the different methodologies and tools which are generally used to perform such analyses. In this respect, Porter’s five forces framework, the techniques used to analyse competition, the environment, the value chain, and the strategic group, as well as other concepts and tools generally used to analyze industries will be presented.

Furthermore, we will discuss future trends both from a theoretical as well as from a practical perspective. Particular attention will be paid to environmental changes and their subsequent impacts upon industry, such as regulatory and technological changes. Finally, we will also consider the issue of industry evolution, in particular the question of convergence across industries.

The course is, in principle, open to all industries, but the cases presented will rather come from the infrastructures (communications, transport and logistics, energy), as well as from other regulated industries (such as pharmaceuticals, health and others more).
Course methodology and structure

The course takes place during thirteen sessions. Each session is divided into two hours of lecture and one hour of group work/seminar, during which there will be guest speakers and participants will analyze and present the progress of their work.

More precisely, the course is structured into five sections, preceded by an introductory session:

- Sessions 2 to 4 will present the main tools for industry analysis as they can be found in the current literature, focusing, in particular, on an industry’s environment.
- Session 5 will then translate this analysis into a framework to understand a firm’s strategic and competitive behaviour.
- Sessions 6 to 8 will address the dynamics of industry development and present corresponding tools for analysis.
- Sessions 9 to 11, in turn, will analyze more precisely particular impacts upon industries, notably regulation and technology, as well as future issues (e.g., convergence).
- Finally, sessions 12 and 13 will be devoted to the participants’ presentations.

The course will be taught on Fridays (9h15 – 12h00) from February 19th May 28th 2009.

Course readings

Participants will be given one compulsory reading per session, as well as a detailed bibliography and useful websites on industry analysis.

Below, please find a list of three relevant textbooks. During the seven weeks of this course, participants are expected to read one of them.


Course pedagogy and cases

While the course offers substantial conceptual input, the presentation of specific industries will be used by the Professor in order to illustrate the main concepts and approaches of industry analysis.

At the beginning of the course, participants will be required to select a particular industry as the topic of their research. The gathering of data, the analysis and the presentation of the findings should reflect the overall application of the concepts and techniques needed to perform an accurate industry analysis presented in the course. Participants are encouraged to select industries which have less been studied in the past, so as to make more original contributions. Among such under-researched industries one may mention:

1. The human trafficking industry
2. The organ industry
3. Then health food industry
4. The Biotechnology industry
5. The Energy industry (electricity, gas, oil)
6. The transport industry (railways, public local transport, air transport)
7. The water industry (water distribution, sanitation, bottled water)
8. The logistics industry (postal services, maritime freight, air freight, rail freight, etc.)
9. The audiovisual industry (radio, TV)
10. The consulting industry
11. Various natural resources related industries (e.g., wood, agricultural products, fisheries)
12. The higher education industry
13. The military industry
Structure by sessions

The course is structured into 13 separate sessions, each of which is again subdivided into a 90’ lecture and a 45’ seminar. The lecture is given by the professor, while the seminar’s purpose is to help participants to elaborate and apply the concepts of industry analysis.

Session 1 – February 19th 2009, 13-16: Introductory lecture

<table>
<thead>
<tr>
<th>Main session (90’)</th>
<th>Introductory exercise and lecture:</th>
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<tbody>
<tr>
<td></td>
<td>1. Industry analysis, its history, its context</td>
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<td></td>
<td>2. Why perform an industry analysis?</td>
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<td>3. The course’s approach to industry analysis</td>
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<table>
<thead>
<tr>
<th>Seminar (45’)</th>
<th>Definition of and agreement on the participants’ work</th>
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<tbody>
<tr>
<td>Reading for this session</td>
<td>No reading for the first session</td>
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Session 2 – February 26th 2009, 13-16: Overview of Industries and Industry classifications

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<thead>
<tr>
<th>Main session (90’)</th>
<th>1. An overview of the various types of industries</th>
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<tr>
<td></td>
<td>2. Industry and sector classifications: presentation of taxonomies</td>
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<td></td>
<td>- Common classification: High and low tech industries</td>
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<td>- Innovation Literature: Technological regimes</td>
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<td>- International trade analysis: Factor intensities</td>
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<td>- Industrial performances</td>
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<td>- Qualification of competition</td>
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<thead>
<tr>
<th>Seminar (45’)</th>
<th>Definition of students’ work; research approach and methodology</th>
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Session 3 – March 5th 2009, 13-16: Techniques to audit and to assess the macroeconomic environment

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<tr>
<th>Main session (90)</th>
<th>Identification of macro environmental influences: introduction to some techniques</th>
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<tr>
<td></td>
<td>1. The STEEP analysis</td>
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<td>2. The PEST framework</td>
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<td>3. Scenario analysis</td>
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<td>4. BCG strategic Industry Matrix</td>
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<table>
<thead>
<tr>
<th>Seminar</th>
<th>Examples from previous years (Finger)</th>
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Session 4 – March 12th 2009, 13-16: The firm’s (industry) environment: the key forces

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<thead>
<tr>
<th>Main session (90’)</th>
<th>1. Porter’s five forces model</th>
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<td></td>
<td>2. Strategic group analysis</td>
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<td>3. Value Chain Analysis</td>
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Seminar (45’) | Guest speaker: Dr. Guillaume de Tillière, Alstom (railway industry)
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**Session 5 – March 19th 2009, 13-16:** The Identification of key opportunities and threats: the firm’s strategic competitive position

Main session (90’): 1. SWOT analysis 2. Industry analysis in the strategy formulation process 3. The firm and its environment

Seminar (45’) | Progress of participant’s work
---|---
Reading for this session | Fleischer, C. and Bensoussan, B. (2002) *Strategic and Competitive Analysis*. Chap.7: Strategic Group Analysis, pp. 74-91 Chap.8: SWOT Analysis, pp. 92-103

**Session 6 – March 26th 2009, 13-16:** Industry life cycle

Main session (90’): 1. Presentation of the industry life cycle 2. Characteristics of an emerging industry

Guest speaker (45’): Dr. Pierre Rossel, EPFL (knowledge industry)


**Session 7 – April 2nd 2009, 13-16:** Development of an industry

Main session (90’): Characteristics of a growth industry

Seminar (45’) | Progress of participants’ work
---|---

**Session 8 – April 9th 2009, 13-16:** Mature industry

Main session (90’): 1. Characteristics of a mature industry 2. Decline or rejuvenation

Seminar (45’) | Guest speaker: Dr. Christian Jaag, Swiss Post (postal industry)
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**Session 9 – April 23rd 2009, 13-16:** The impact of regulation on industry structure

Main session (45’): Characteristics of Network Industries: Historical perspective
The role of Regulation at the National and supra national levels
Regulation of firms and industries

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<tr>
<th>Guest speaker (45’)</th>
<th>Preparation of participants’ work</th>
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Session 10 – April 30th 2009, 13-16: Evolving Industries and Evolving Regulation

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<tr>
<th>Main session (90’)</th>
<th>Technological change and industry structure</th>
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<tr>
<td>Seminar (45’)</td>
<td>Guest speaker: Dr. Olivier Crochat, Fibrelac (telecom industry)</td>
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Session 11 – May 7th 2009, 13-16: Converging markets, the future of industry analysis

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<th>Main session (45’)</th>
<th>Converging markets, industry concentration</th>
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<tr>
<td>Seminar</td>
<td>Preparation of participants’ work</td>
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Session 12 – May 14th 2009, 13-16: Participants’ presentations  
Session 13 – May 28th 2008, 13-16: Participants’ presentations

Course requirements

Participants will work individually or in teams of two on a project. Participants will be graded (individually or collectively) on the basis of a written document (70% of the grade; see below) and an oral presentation during sessions 12 and 13 (15% of the grade). 15% of the grade measures participation.

The written document will be approximately 30 pages long (Times Roman 12; single space) and cover the techniques and concepts taught during the class. Ideally it should be structured as follows:

- A problem statement: why is the industry studied relevant and interesting (approx. 2 pages)
- The presentation of an industry and its evolution (approx. 10 pages)
- A short discussion of the relevant conceptual elements presented in the course and relevant in the case of the student’s work (approx 4 pages)
- An analysis of the industry chosen and its challenges according to the conceptual elements (approx. 10 pages)
- Conclusion (2 page)
- Sources, references (approx. 2 pages)

This written document should be submitted (via email) at the latest on May 25th 2009 midnight.

Each individual/group will present their final work during a 15 minutes oral presentation.

Bibliography and other references
Books


Articles


**Useful websites**

- **The Financial Times** provides financial indicators as well as company informations; [http://news.ft.com/industries](http://news.ft.com/industries)
- **Fortune** is a magazine which provides a ranking of the Fortune 500 companies; [http://www.fortune.com/fortune](http://www.fortune.com/fortune)
- **Forbes** is a magazine which provides information about corporations as well as news of any types of industries; [http://www.forbes.com](http://www.forbes.com)
- **BusinessWeekOnline** provides reports, information about industries, corporations and recent news about the business world; [http://www.businessweek.com](http://www.businessweek.com)
- **The Economist** is a magazine about the latest news occurring in the world. The magazine also has a good Research tool which provides a good definition about economics terms; [http://www.economist.com/research/Economics](http://www.economist.com/research/Economics)
- **Company’s websites** are a good source of information. The annual report tends to describe the state of the competition, their market share in the industries and their future strategies.
- Company annual report can also be found at the US Securities Exchange Commission; [http://www.sec.gov](http://www.sec.gov)
- **OECD** [http://www.oecd.org](http://www.oecd.org)
- **International Chamber of Commerce** [http://www.iccwbo.org](http://www.iccwbo.org)
- **The Mc Kinsey Quarterly** provides reports on specific industries and research papers on specific topics [http://www.mckinseyquarterly.com](http://www.mckinseyquarterly.com)
- **INSEAD**: School of Business and Management, Paris, France; [http://knowledge.insead.edu/home.cfm](http://knowledge.insead.edu/home.cfm) Provide research papers, case studies on various sectors
- **Gartner Dataquest** provides information about the Information technologies industries. Click on advanced search and specify free research and the search terms of your inquiry; [http://www.gartner.com/1_researchanalysis/research_overview.html](http://www.gartner.com/1_researchanalysis/research_overview.html)
- **UBS** provides reports about markets and sectoral trends; [http://www.ubs.com/1/e/media_overview/media_global/research.html](http://www.ubs.com/1/e/media_overview/media_global/research.html)
- **INSEE** [http://www.alisse.insee.fr/european_industry_statistics.html](http://www.alisse.insee.fr/european_industry_statistics.html)
- **Eurostat**: Entreprises and industries in Europe. This site provides information about European industries, the RAMON database; [http://europa.eu.int/comm/enterprise/sectors_en.htm](http://europa.eu.int/comm/enterprise/sectors_en.htm)