GLOBAL SUPPLY CHAIN MANAGEMENT

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Michel Fender is Professor of Logistics and Supply Chain Management at the Ecole des Ponts ParisTech (ENPC). He was previously Director of Essec Executive Education, Chairman of the Supervisory Board of the ENPC School of International Management and President of the Industrial Engineering Department at ENPC. He was as well the Co-Director of the Master of Science in Logistics of the International Management for Logistics Institute which is a joint institution between ENPC and EPFL in Switzerland.

Dr. Fender holds a Doctorate from the ENPC in Economics, Management and the Social Sciences. He has an MBA degree from HEC (Paris). He is an Engineer in Agronomy graduated from Agro ParisTech. His main research topic is related to Supply Chain Management, the role of Logistics within companies and more particularly the logistical co-operations between producers and distributors within Value Chains. Dr. Fender has published three books: Global Operations and Logistics, Text and Cases (John Wiley & Sons, New-York, 1998), translated in Chinese and in Portuguese, La logistique globale et le Supply Chain Management (Edition d’Organisation, Paris, 2007), The Essentials of Management and Logistics (Presses Romandes, Lausanne, 2007), Logistique (Dunod, 2008), Pratique du Supply Chain Management (Dunod, 2012).

Dr. Fender has taught in MBA programmes around the world including Morocco, Argentina, Japan, India, China and the UK. He was also a lecturer at HEC, Centrale, CNAM in Paris, France. In addition, he has been involved in various Executive Programmes for companies in different industries -- eg., automotive (Peugeot, Citroën), pharmaceuticals (Synthelabo, 3M, BioMérieux), optical (Essilor), cosmetics (Roc), energy (EDF), telecommunication (France Telecom), fast moving consumer goods (Le Printemps, Altadis, Philips, Schneider Electric, ONA), IT (Sligos), third party logistics (FDS), building construction (Saint-Gobain), chemical (Adisseo).

Dr. Fender is the co-founder and partner at Log-infuture which a Senior Advisory of Newton Vaureal & Co, a consulting firm specialised in logistics. He has advised many companies in different industries such as:
- Fast Moving Consumer Goods: Electrolux and Valentine (ICI Group), Kaysersberg (Body Health Care, such Lotus and Vania), Perrier, Virgin France, Berger (sirops and alcools), Lexmark, Altadis, Morocco Tobacco, France Telecom, Alcatel-Lucent ESD, Nespresso;
- Retail and Distribution: Euromarché, Barbotteau, Pinault Distribution, Prodirest-Carrefour, Butagaz, Point P, Saint-Gobain Distribution, Système U, Arena,
Mousquetaires-Intermarché, ATAC (Auchan), France Boissons (Heineken), Casino, ADEO Services, Weldom, ONA (Morocco), Weldom;
- Third Party Logistics: Delquignies, Norbert Dentressangle, SDV-LI, DHL-Exel, STEF-TFE, Marsa Maroc;
- Pharmaceutical and Health Care Products: OCP, Zeneca, Leo, Essilor, Diagnostica Stago, Boehringer-Ingelheim, CHR-Hansen, Ciba-Vision, Didactic;
- Publishing: Book and publisher syndicate, Ouest France;
- Aircraft: MOD, EADS, Eurocopter, Royal Air Maroc, Hurel Hispano, Messier-Dowty;
- Building Materials: Holcim, Placoplatre-Isover;
- Automotive: Michelin Europe, Michelin Asia, Vallourec, Saint-Gobain Sekurit;
- Recycling: Veolia Propreté, Recylum;
- National agencies: Tanger Med, SANEF, Seine & Marne Développement;
- Investment banks: Goldman Sachs, UI Gestion;
- Miscellaneous: Saint-Gobain Abrasives, Alcan Cebal, Prim, Vallouerc Oil & Gas, CMH.

He is Board Member of MedHub, the Free Zone Logistics of Tanger Med in Morocco.

**MOTIVATION AND COURSE OBJECTIVES**

The sessions are oriented in two directions: supply side and demand side within the value chains. They are complementary and embedded in what is called supply chain management. Two levels of supply chain management are more specifically addressed in that module: the strategic and the tactical.

On the supply side, a new perspective on the role of manufacturing and of procurement in competitive strategy has emerged in the last decade. It was sparked by global competitors who entered and then dominated a wide range of industries through superior quality, productivity, and new product and process technologies. They achieved these mainly through a better management of manufacturing and sourcing.

The demand side mostly animated by the retailers has been over the last decade very dynamic and innovative. The retailers have used logistics as a strategic lever to create value by taking over both operations and critical tactical processes. They demonstrated the close interaction between the three levels of any global supply chain management approach i.e. strategic, tactical and operational.

The new perspective is revealing two points more convincingly. First, supply chain decisions, in spite of their seemingly technical nature, are not the province of functional specialists; top management must initiate, guide, and facilitate them. Second, there is a burst of new knowledge in this field which is creating exciting new insights.

The task facing the top management, therefore, is a complicated one. On the one hand, it should assert itself more in the management of the supply chain function, on the other hand, the conventional rules and wisdom accumulated through the years are suspect and need a re-examination.
Logistics and/or supply chain management is a key process interfacing supply side and demand side, a function of the interface between research-development, marketing and production. The main purpose of this function is to provide the right level of service associated with the products sold to customers through the marketing channels. This is the reason for which Supply Chain Management is another new approach of this activity dedicated to meet the customer expectations in terms of service. This customer service has to be provided in minimising the total cost of logistical operations, which includes materials, inventory, transportation, handling, after sales service and order processing system costs. This approach is particular to an optimisation method based on a continuous trade-off.

For us, the supply chain function has to be viewed globally. Global supply chain does not only imply an international perspective. The three components of global supply chain management are:

- **Functional integration**: Effective operations and logistic management is not only dependant on good co-ordination of physical flows generated by several operational functions (manufacturing, physical distribution, after-sales service,...). The source of improvement comes from a better management of flows by functions such as research and development or marketing. The launch of new products, the withdrawal of obsolete products, the promotion campaign and obviously the packaging or the choice of a marketing channel have a significant development potential, if marketing, logistics and manufacturing operations can find common actions in order to co-operate,

- **Sectorial integration**: Vendors, manufacturers, retailers and customers optimise their own logistics and their operations independently. In the sector of consumer goods, the ECR (Efficient Consumer Response) projects are the first attempt of this sectorial integration. Co-operations axes have been defined by both producers and retailers, in order to implement solutions pulled by demand of customers more than pushed by products. The features of this co-operation are:
  - assortment: optimisation of store assortment and space allocation to increase category sales per square foot and inventory turnover
  - replenishment: streamlining of the distribution of goods from the assembly line to the retail shelf
  - promotions: reduction of the trade cost and consumer promotion
  - new products: reduction of the cost of developing and introducing new products.

- **Geographical integration**: the global environment that characterises the business world of today has pointed out the importance of developing strategies that go beyond the geographical boundaries of one country. Nowadays, it is not uncommon to see a company that develops a new product in the US, manufactures it in Asia and sells it in Europe. Wage-rate differentials, expansion of foreign markets and improved transportation are breaking down the barriers of time and space between countries, forcing the logistics function to take a global dimension. Global logistics
The specific objectives of the course are:
1. To develop an understanding of the state of the art in strategic management thinking as it applies to firms with global operations.
2. To develop a capacity for analysing logistical problems on a functional, business, and company-wide basis.
3. To develop an awareness of the organisational structures used in logistics and the strengths and weaknesses of those structures.
4. To become acquainted with some of the realities of running different types of production/distribution firms.

METHOD OF TEACHING

The pedagogic approach is pragmatic. You are expected to come to class prepared to discuss the cases for which there will be group work and class discussion. Suggested questions to help you prepare each case can be found in the Detailed Course Outline section. These questions should serve as a starting point. In a typical class, one or more class members will be asked to start the session by addressing specific questions. Anyone who has prepared the case should be able to handle such lead-off questions. After a few minutes of initial analysis and recommendations, we open the discussion to the rest of the class. As a group we will try to build complete analysis of the situation and address the issues and problems it presents.


GRADING

Your grade will be based on a final exam (70%) and class participation (30%).
COURSE OUTLINE

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<td>Global SCM : importance, motivation and key trends</td>
<td>Chandler Home Products (B)</td>
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<td>The maturity levels in Logistics and Supply Chain</td>
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ASSIGNMENTS AND GUIDELINES FOR CLASS PREPARATION

Session 2

Case: Chandler Home Products
Chandler Home Products, a large, multi-national manufacturer of household care products, is faced with a decision concerning the expansion of its European manufacturing operations. The company has historically centralised its European manufacturing in a single plant in Holland, called Complant, but capacity at the plant is now limited when compared with the projected growth in demand. Chandler must decide among three options for capacity expansion:

1) expansion of the existing facility in Holland
2) construction of a new production facility somewhere else in Europe
3) increase reliance on subcontractors

This case presents us with the opportunity to evaluate a capacity expansion decision outside the US, and to assess the impact of such factors as exchange rate fluctuations, common market policies, and nationalism on the capacity planning process. The advantages and disadvantages of a policy of plant centralisation must be carefully weighted against the backdrop of a changing economic environment. We must also deal with a number of issues concerning the organisational structure and reporting relationships governing a multi-national manufacturing company operation.

Discussion Questions:
1) How would you evaluate the manufacturing strategy adopted by Chandler in the mid 1960s?
2) How has Complant performed since 1964? Has it met its expectations? What are its problems/advantages?
3) Which capacity options facing Chandler in 1979 should be followed? Why?
4) What changes, if any, would you make in how manufacturing is organised at Chandler?