International Logistics

General Information

Number of ECTS Credits
3

Module code
TSM_Logistic

Valid for academic year
2021-2022

Last modification
2021-01-15

Coordinator of the module
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Explanations regarding the language definitions for each location:
- Instruction is given in the language defined below for each location/each time the module is held.
- Documentation is available in the languages defined below. Where documents are in several languages, the percentage distribution is shown (100% = all the documentation).
- The examination is available 100% in the languages shown for each location/each time it is held.

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Module Category
TSM Technical scientific module

Lessons
2 lecture periods and 1 tutorial period per week

Entry level competences
Prerequisites, previous knowledge
- Basic knowledge of logistics
- Basic knowledge in operations management
- Good knowledge of English

Brief course description of module objectives and content
The module starting from the analysis of the whole Supply Chain configuration and management process, underlines in particular the greater importance role that logistics and procurement are assuming in modern collaborative Supply Chain. Procurement is a strategic business driver that allows companies to efficiently focus on their key competences and activities while leveraging competences and cost advantage stemming from a
complex supplier network, which provides products and services. Logistics activities are crucial for modern Supply Chains, ensuring a smooth sharing of information and materials among manufacturers and their globalized supplier networks. Moreover, distribution logistics plays a crucial role in delivering customer experiences and value, thanks to differentiated options and services. The evolution of Supply Chain activities in reaction to new paradigms, such as sustainability and mass customization, and thanks to technological innovations, such as Industry and SCM 4.0, will be analysed in order to better understand future challenges and opportunities.

Aims, content, methods

Learning objectives and acquired competencies

The module prepares for a professional career in industrial Supply Chain Management (SCM). Possible fields of activity include business development, innovation, business processes and quality improvement, the management of Supply Chains at national and international level.

The module will provide the necessary knowledge to understand the variety of possible SCM concepts, including sourcing, logistics and outsourcing/offshoring. An overview of the potential alternatives will be achieved through the analysis and knowledge acquisition about strategies, management processes, structures and technical elements, based on the design principles of different operational procurement and distribution needs of multiple branches.

The students will be able to manage strategic, tactical and operational decisions; starting from the establishment of correct strategies suitable for given targets, design a possible operating strategy for the planned issues and implement at tactical and operational level the required coordination and management mechanisms. For this reason, methodological tools for deriving and implementing suitable strategies (understanding of the influence of the industrial sector context, establishment of realistic targets, identification of decision drivers and key processes, designing of suitable strategies, managing and controlling of internal processes and their integration with those of the supply chain partners) will be introduced.

In order to deepen the level of knowledge and competences, while dealing with practical aspects and comparison of alternatives, quantitative methods will be presented and applied by the students through examples and tasks. Case studies, presented by industrial and scientific experts, will allow to better understand the complexity linked to the application in real contexts of the proposed methodologies and to face these challenges.

Contents of module with emphasis on teaching content

SCM integrates all activities involved in the flow of goods and services from providers to the final customers and is fundamental for achieving company success in a globalized, dynamic and uncertain business environment. The ability to react to customer requirements and matching them with the network resources is critically important in SCM and requires among other things focusing on core competences, making coherent outsourcing/offshoring decisions as well as choosing suitable configurations of the distribution network. Aside from those strategic considerations, decisions have to be made on the tactical and operational levels. The module will deal with models and concepts of international logistics, including sourcing and outsourcing/offshoring, e.g.:

- SCM strategy and internationalization including outsourcing/offshoring

- Contract management (statement of requirements)

- SCM management and controlling

- Models and concepts of international logistics including warehousing and transport

- Rules and regulations in international logistics

- Governance, Corporate Social Responsibility, and quality assurance in SCM

Under the umbrella provided by the macro areas listed above a variety of topics will be addressed, such as:

- SCM introduction (definitions, 7 principles, 8 key activities, etc.)
- Supply Chain design, configuration and coordination
- Sustainable SCM
- Decision Support Tools in SCM
- Risk Management in SCM
- Innovation in SCM (Industry and SCM 4.0, new services, etc.)
- International Logistics (air, sea, rail, road)
- Inter-modality
- Last Mile distribution and Omnichannel
- Procurement Strategy Development
- (Strategic) Sourcing Lifecycle
- Supply market competitiveness appraisal
- Supplier Relationship Management
- Outsourcing/Offshoring (and Insourcing/Nearshoring)
- Purchasing negotiation

Teaching and learning methods

- Lectures / presence
- Tutorial / presence
- Self-study
The presentations distributed by the lecturers will be the main source
Specific scientific and “magazine” articles will be uploaded for covering specific topics and applications

Additional material for in-depth analysis can be found for instance in the following books:
- Purchasing and Supply Chain Management: Analysis, Strategy, Planning and Practice, A.J. Van Weele, 2009, Cengage

**Assessment**

**Certification requirements**
Module uses certification requirements

**Certification requirements for final examinations (conditions for attestation)**

**Basic principle for exams**
As a rule, all the standard final exams for modules and also all resit exams are to be in written form

**Standard final exam for a module and written resit exam**
Kind of exam
written
Duration of exam
120 minutes
Permissible aids

Aids permitted as specified below:
Permissible electronic aids
None
Other permissible aids
Open book. Printed documents (all lectures).

**Special case: Resit exam as oral exam**
Kind of exam
oral
Duration of exam
30 minutes
Permissible aids

Aids permitted as specified below:
Permissible electronic aids
None
Other permissible aids
Open book. Printed documents (all lectures).