2021_S0X_PGE_M2_OPS_0004_E_L_BOD_APP

2021_S0X_PGE_M2_OPS_0004_E_L_MRS_APP

SUPPLY CHAIN & PROCUREMENT MANAGEMENT: THEORY AND PRACTICE

2nd Semester, 2019-2020

COORDINATOR	Amir PIRAYESH
PROFESSORS	Amir PIRAYESH Frédéric HAUSER Majid SODACHI
OFFICE	Bordeaux campus, Office 1536 (A. PIRAYESH)
TELEPHONE	05 56 29 20 19
E-MAIL	amir.pirayesh@kedgebs.com frederic.hauser@kedgebs.com M.Sodachi@Jacobs-University.de
OFFICE HOURS	on demand

COURSE DELIVERABLE	DUE DATE	WEIGHT ON FINAL GRADE
Continuous Control	During the course	40%
Exam	End of the module	60%

Kedge Business School and its professors, encourage you to use your Pro-Acts, company projects and internships as privileged opportunities to apply the reflections, theories, concepts and tools presented during this course

INTRODUCTION AND OBJECTIVES

Course Purpose & Objectives

The desires and needs of consumers are the engines of our economy. Meeting these needs requires management resources and operations. While marketing leads a customer to possibly order a product or service on the basis of justified expectations, the Supply Chain, involving various actors and operations, is in charge of meeting these expectations. Indeed, Supply Chain Management (SCM) helps companies to gain a foothold in a highly competitive global market by bringing together the complementary skills of different players.

The aim of this course is to provide information and knowledge to students to understand the Supply Chain fundamentals and its management while making them aware of the current challenges of typical Supply Chains. This course will also help them understand the essence of operations and logistics management as the main building blocks of SCM. This course is also intended to support the learners in their current or future enterprises in the adoption of *Supply Chain Thinking*. In fact, successful managers make good decisions when they conceptualize issues holistically, identify existing interdependencies in the supply chain, and perform rigorous quantitative and qualitative analyzes to facilitate cross-business processes. This can potentially improve the overall performance of the chain and maximize the value generated for all stakeholders, primarily customers.

Courses contribution to program objectives (Learning Goals (LG)) of PGE program)

1) ***PGE1 - Understand and integrate core*** Supply Chain ***management disciplines*** in the context of a manufacturing or service Supply Chain (SC). The first objective of this course is to make students able to:
   - Assimilate the notions of SCM and the overall SC structure; Apply SCM managerial concepts to define SC and its key operations and explain how they generate value
   - Identify the main challenges of SCM, understand the need for solutions, and recognize the adopted solutions
   - Apply / propose a method / best practice supporting SCM or Operations Management
   - Characterize a SC considering the characteristics of its environment (focal company and its strategy, supply and demand, market, …); integrate the interdependency of decisions / actions within a SC and their implications in terms of performance
   - Identify the stakeholders of a given SC and their points of view; express himself/herself as one.
2) ***PGE3 - Develop*** *Supply Chain* ***strategic perspective:*** *The second objective of this course is to make students able to:*
   - Understand the relationship between SC strategy and competitive strategy (the role of SC in the competitive advantage)
   - Integrate the interdependency between decisions / actions, their implications in terms of performance (vertical interdependency: from strategic to tactical levels or horizontal interdependency: from one SC operation to another)
   - Understand the need for coordination in SC, particularly at the strategic level

Course description:

Supply Chain, Supply Chain Management, Logistics, Operations, Strategy, Performance, Decision, Stakeholder, Customer, Product, Service.

COURSE MATERIAL

Textbook: *Chopra, S. and Meindl, S. (2016) Supply Chain Management. Strategy, Planning and Operation. Pearson.*

****. The textbook is comprehensive and provides advanced contents for each topic but it is not mandatory to read this textbook prior to the sessions.***

Course materials available on Learn (https://learn.kedgebs.com)

- PowerPoint presentations for sessions 1-8

- Case Studies and Exercises

Websites

www.airl-log.com

www.supplychain-forum.com

www.logistique-management.com

COURSE CONTENTS AND TIMETABLE

SESSIONS	TOPIC	PRELIMINARY READING(S) AND ASSIGNMENTS
1	Introduction to Supply Chain & SCM Theory	Session slides form LEARN
2	Demand & Supply planning – S&OP Exercise Procurement and Supplier Selection – Case / Exercises	Session slides form LEARN
3	Forecasts - Logistica Game (part 1) * Production Planning - Logistica Game (part 2) * Supply Planning - Logistica Game (part 3) *	To be distributed during the session
4	Transport Mode Selection - Logistica Game (part 4) * Distribution Network Design - Logistica Game (part 5) * Reverse Logistics - Logistica Game (part 6) *	To be distributed during the session
5	Production & Distribution - Beer Game	Session slides form LEARN
6	Inventory Management Theory - Exercises Production Planning Theory - Exercises	Session slides form LEARN
7	Sustainability and Reverse Supply Chain Theory - Case Supply Chain Simulation – i-Log game (part 1)	Session slides form LEARN To be distributed during the session
8	Supply Chain Simulation – i-Log game (part 2) **	To be distributed during the session
9	Supply Chain Simulation – i-Log game (part 3) **	To be distributed during the session
10	Exam	-

* Continuous control A – group work

** Continuous control B – group work

TEACHING APPROACH/ INSTRUCTIONAL METHODS

Teaching Philosophy

Education involves developing habits, developing skills and gaining understanding. Two philosophies guide everything I do when designing and teaching a course:

- *Tell me and I will forget, show me and I may remember; involve me and I will understand.*- Confucius
- *We are what we repeatedly do. Excellence, then, is not an act, but a habit.*- Aristotle

My goal is to help you gain the understanding, skills and habits necessary to become skilled thinkers and decision makers in Supply Chain area.

A Word of Advice

This course will address Supply Chain and the main target are learners who has preliminary professional experiences. This is why the learners are advised to carefully prepare each session and to ensure potential questions have been addressed in class, particularly in relation to their experiences or current functions.

Therefore, I expect from you as a learner to be a collaborator and contributor, prepared and engaged in all classroom activities throughout the course.

Organization of the sessions

This course combines classroom lectures, exercises, case studies and probably guest lectures (depending on the availability of the lecturer). There will also be individual written assignments and team assignments made by the students. Students must use commercial or academic terminology (in English / French) to present their work in a credible way to an informed business audience.

NOTE: According to government and health regulations, the sessions modality (e.g. Face to Face or Online). may change. Further instructions will be provided by the professors and the program. For online sessions, the Black Board Collaborate Ultra tool integrated in the LEARN platform will be used.

Office Hours Policy

I encourage you to meet me throughout the semester. However, I expect you to come prepared while informing me advance to fixe an appointment. Appointments allow us to discuss any issue you may have about the course or to answer to any relevant question (e.g. career choices). You can come see me after class or contact me by e-mail on this subject.

EVALUATION OF STUDENT PERFORMANCE

A	Logistica Game	Continuous Control - Collective Assignment	20%
B	i-Log Game	Continuous Control - Collective Assignment	20%
C	Examen final	Individual Assignment	60%

Methods Used to Evaluate Student Performance

A) Continuous Control A – Logistica Game (20%): This Supply Chain game invites participants to set up a whole supply chain: from component suppliers (on different continents) to customers spread across the world. The students will play the role of the Supply Chain team at a company (several student teams will work on the same company), responsible for defining the supply chain for the marketing of a new range of products. For this, they define and follow a methodology, based on the sequence of a dozen organized steps: establish forecasts, plan production and supply, select transportation mode, model the distribution network, up to the reverse logistics (after-sales service, maintenance, end of product life).

Evaluation Criteria: This work will be evaluated on the basis of the performance of the teams, the results submitted by the them and their participation.

B) Continuous Control B – i-Log Game (20%): i-Log is a business game allowing to understand or deepen Supply Chain management and its planning. With this game, the students, working in groups, will manage the supply of components from upstream suppliers, manage the stocks of raw materials and finished products, make decisions regarding internal production and organize the distribution of finished products. These decisions will impose arbitrations on them in order to build an effective strategy and obtain the best possible performance in terms of profit, market share and level of service. This part will be evaluated on the basis of the performance of the groups. Groups will be formed and trained and instructions will be given in class.

Evaluation Criteria: the evaluation will be based on the profit (10%), service-level (5%) and market share (5%) (of each team in comparison to other teams) as well as the cooperative behavior of the learners during the game.

C) Final exam (60%): The exam verifies the knowledge of terminology and concepts as well as the application of these concepts to respond to real business situations.

- Exam Part 1 (15%): Game-related Multiple-choice and true-false questions

  Evaluation Criteria: Understanding of the business games

- Exam Part 2 (15%): Generic multiple-choice and true-false questions

  Evaluation Criteria: Understanding of Supply Chain and Procurement Management concepts

- Exam Part 3 (30%): Descriptive questions and Quantitative exercises, mainly formulated as short cases, on the theoretical part of the course (see session topics):

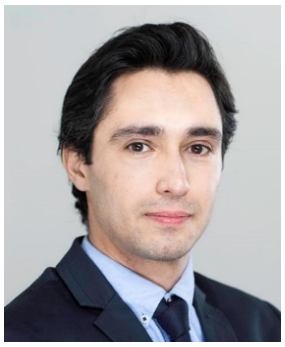
  Evaluation Criteria: See the table on the next page.

Guidelines for the Exam: For quantitative questions, the calculations behind the results should be clear; for descriptive / open questions, an answer must be given and a clear position must be taken; the answer must be concise and short (they should not exceed the space provided, if applicable); the appropriate terminology must be used.

Evaluation criteria (Final Exam)

Criteria	BELOW EXPECTATIONS / NOT GOOD ENOUGH	MEETS EXPECTATIONS / GOOD ENOUGH	BEYOND EXPECTATIONS / SUPERIOR	WEIGHT
	0-1.75 point	**2-2.75 points**	**3-4 points**	
1) Ability to cite, define, and exemplify SCM managerial concepts / associated operations, explain the role of SCM in companies and its barriers **(regarding the various theoretical topics addresses in the course, see course topics)**	*> The student is not able to define the Supply Chain and its main concepts / operations.* *> He / She is not able to explain the need for SCM.* *> The written expression is not well-formulated or the terminology is not adapted.*	*> The student is able to define supply chain and its concepts / operations but its expression / interpretation of those concepts is limited and indicates a lack of vocabulary.* *> The examples provided are either limited or irrelevant.* *> There is a lack of structure in the expressions.*	*> The student demonstrates a good understanding of the concepts.* *> He / she can provide relevant examples and explain how SCM can contribute to a company's performance and competitiveness.* *> Expressions are well structured and formulated with appropriate terminology.*	4
	0-1.75 point	**2-2.75 points**	**3-4 points**	
3) Ability to apply / propose methods (qualitative or quantitative) or tools in support of SCM / Operations Management or to perform a comparative analysis of such methods **(regarding the various theoretical topics addresses in the course, see course topics)**	*> The student cannot integrate the purpose of the method(s).* *> He / She is unable to propose a method (existing, mixed or personalized) or to apply the given method(s)* *> The expressions / results are not correct.* *> The requested comparative analysis is not carried out. (if applicable*	*> He / She can explain the generic purpose of the methods* *> He / She is not able to propose a complementary method (existing, mixed or personalized).* *> The method(s) is (are) applied but the arguments or the final results are not completely correct.* *> The comparison made is not complete (if applicable).*	*> The student can explain the purpose of the method(s) according to the given scenario.* *> The student is able to apply the method(s) or* *> He / She can select a method depending on the context of the question or can propose an original method or one personalized.* *> The arguments and the results are correct and relevant.* *> The comparative analysis is relevant (if applicable).*	8
	0-1.75 point	**2-2.75 points**	**3-4 points**	
2) Ability to cite, detect and analyze the interdependency of SC operations and proposed coordination solutions in a given situation **(regarding the various theoretical topics addresses in the course, see course topics)**	*> The student is not able to cite interdependencies* *> He / She can not analyze a given challenge or explain its implications nor explain the need for a solution* *> He / She can not detect a challenge in a given situation,* *> The student's expression is not well formulated or the terminology is inappropriate.*	*> The student can highlight the main interdependencies* *> He / She is able to provide some basic examples.* *> He / She is not able to analyze in depth a given situation and to identify the need / usefulness of a coordination solution.* *> Expressions could be improved (in terms of structure or terminology).*	*> The student is able to mention and explain several interdependencies* *> He / She can detect a problem in a given situation and provide a relevant analysis.* *> He / she is able to identify the need / usefulness of a coordination solution (method, tool)* *> The arguments are correct; expressions are well structured and formulated with appropriate terminology.*	4
	0-1.75 point	**2-2.75 points**	**3-4 points**	
4) Ability to identify and analyze major SC decisions / actions and their performance implications in a given scenario **(regarding the various theoretical topics addresses in the course, see course topics)**	*> The student cannot identify the particularity of the scenario (Supply/Demand characteristics, those of the resulting products or services)* *> He / She cannot identify decisions / actions or their performance implications* *> The arguments are not relevant.*	*> The student can identify certain decisions / actions, their triggers, and their implications in terms of performance.* *> The arguments are generic and do not fully match the characteristics of the scenario* *> The terminology could be improved.*	*> The student is able to integrate the notions.* *> He / She can detect strategic decisions / actions and perform a comprehensive and relevant analysis related to the scenario.* *> The arguments are correct and the correct terminology is used.*	4
			Total	**20**

BIOGRAPHIES



Amir Pirayesh is Assistant Professor in Operations & Supply Chain Management. He received his Ph.D. in Industrial and Mechanical Engineering from Ecole Nationale Supérieure d'Arts et Métiers (ENSAM) where he was also Research Assistant and Lecturer (ATER). Before joining KEDGE, he was involved in several European projects, in the frame of H2020 programme and Factories of Future (FoF) initiative, as researcher of InterOP-VLab (the International Virtual Laboratory for Enterprise Interoperability). His teaching and research interests include the analysis of Manufacturing and Supply Chain Operations using Enterprise Modelling and Process Simulation (M&S Driven Enterprise Management), Interoperability Evaluation, Performance Measurement, and Risk Assessment. His research revolves also around various aspects of Servitization and Cyber Physical Production Systems (CPPS). He has contributed to several scientific publications.

Frédéric Hauser is a logistic organisation and Supply Chain strategy consultant. He is graduated as engineer from IMT Mines Albi (1999) and holder of a bank and financial engineering specialized master from Toulouse BS (2000). He has successively practiced in production, investment and remachining management, enterprises management, transition management and Supply Chain projects. He has worked equally in SMEs and international groups of several branches of activity. This allows him to help his customers to optimize their SCM by harmonizing the products flow, the processes and the Legacy Systems.

Majid SODACHI is a researcher and is preparing a PhD thesis in the field of Supply Chain Management in the Department of Mathematics and Logistics of the Jacobs University of Bremen (JUB). His research interests involve various scientific aspects, including Supply Chain and Inventory Control Management, Industry 4.0 Applications, Stochastic Processes, and Queueing Systems. He received his master's degree in Industrial Engineering before JUB research group. He has also contributed to several scientific papers at international conferences.

ACADEMIC FRAUD

Definition

Academic fraud is a breach of ethics.

"Is achieved using unfair means or deception, to obtain material or undue moral advantage, or with the intent to avoid the enforcement of laws". (Translated from the original source: Dictionnaire Juridique des Lois, 2010, available at: www.dictionnaire-juridique.com/definition/fraude/php)

Plagiarism consists of attributing authorship by (partial or total) copying, imitation or misappropriation.

The act of fraud is committed by one or more students/participants when they:

- appropriate written or oral work to themselves when they are not the author (in whole or in part) of the work, by omitting any references or quotations to the author or to the owner of the work;
- present any data that has been falsified or invented in any way;
- use the identity of the author, attributing the contents of and/or a resource to him/her, but without explicitly mentioning that they are not the author;
- appropriate the creative work of someone else and present it as their own;
- acquire exerts of texts, images, results etc. from external sources by including them in their own work without mentioning the origins of the exerts;
- summarise the original idea of an author by expressing it in their own words but omit quoting the source;
- cheat in an academic evaluation.

Plagiarism can occur in:

- an academic article or book;
- an exercise or a case study;
- a study or a report;
- a dissertation or a thesis;
- any document of which the student/participant is not, but purports to be the author.

Sanctions

Any student/participant having committed academic fraud, or having participated in it, will be sanctioned by the professor in charge of the course. The professor can apply 1st and 2nd level sanctions (detailed below). The professor will send a copy of the sanction to the student's/participant's programme. The student/participant will be informed/and or convoked by the programme director (or his/her representative) to a hearing prior to the possible convening of the Kedge Business School Disciplinary Council. In the case of a hearing of the Disciplinary Council, they can decide to apply 3rd and 4th level of sanctions.

Any student/participant guilty of academic fraud will receive one of the following sanctions:

- Applied by the professor in charge of the course, Kedge Business School faculty member (1st and 2nd level):
  - A grade of zero for the work concerned and a formal warning;
  - A grade of zero for the course or module concerned and a formal warning.
- Applied by Kedge Business School's Disciplinary Council (3rd and 4th level):
  - Suspension from the programme for one or two semesters;
  - Exclusion from the programme.

N.B.: Plagiarism within a partner institution can result in these sanctions being applied by Kedge Business School, notwithstanding partner's decision.