



BA in Management Program Fall 2021 MGMT413 – Strategic Innovation

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Туре	Time	Days	Classroom	Zoom
In-class	17:40 - 18:30	Monday	Fac.of Arts and Social Sci. G022	Zoom link
In-class	08:40 - 10:30	Thursday	Fac.of Arts and Social Sci. G022	Zoom link

Course Objective:

This course aims to help students develop an understanding of the dynamics of innovation and focus on successful strategies to manage the challenges posed by these dynamics. We will review the unique characteristics of industries characterized by frequent innovation and explore how these industries' strategies are (or are not) different from other contexts. We will also focus on the process of managing innovation, both internally and externally. This course is suited for students aspiring to become entrepreneurs, general managers or consultants to general managers who are faced with situations in which innovation in new products, services and technologies is important.

Learning Outcomes:

Upon successful completion of this course, the student should be able to:

- 1. Distinguish between different types of innovations
- 2. Describe the typical temporal Dynamics of innovation-based industries
- 3. Understand the implications of digitization for firm strategy
- 4. Explain the difference between value creation and value capture in innovation
- 5. Describe typical sources of innovation
- 6. Generate a balanced innovation portfolio
- 7. Classify product attributes for innovative products and services
- 8. Understand the role of social network for innovation

Grading:

Attendance	5%
Participation	10%
Case reports	20%
Group project	40%
Final exam	25%
Bonus	10%

Requirements:

A. Individual Effort (40% + 10%)

- 1. Attendance (5%): The instructor will measure attendance using online tools, and the attendance score constitutes %5 of your overall grade. You are not counted as present if you join the session 10 minutes late or leave early.
- 2. Participation (10%): Participation refers to actual contribution to the learning in the session. Inputs to discussions, asking smart questions, comments, and responses to questions by the instructor and reactions to your classmates' arguments are examples of participation. Reading the required material for the week and thinking on the topic before coming to class is essential for high-quality participation. Sitting silent all term long will lead to zero points on your participation grade, even if you attend all classes.
- 3. Final exam (25%): The final exam will cover all term's content. The lecture slides are considered part of the course content, including the content in the slides that may be coming from resources other than your required readings. There will be both multiple choice and essay type questions in the exams, some of which will evaluate your critical thinking on the topics as well as your capability to apply them on real cases. A make-up for the final exam will only be possible if you have a valid health report.
- 4. **Bonus (10%):** The bonus assignment is a voluntary individual assignment and will add up to 10% on top of your overall grade. This assignment involves is a three page paper in which you will have a chance to individually synthesize the ideas you have learned throughout the course. You can draw on your interviews or on other materials. A few (of many possible) suggested topics:
 - You may reflect on one or two specific and personal experiences with innovation and entrepreneurship during which you and the team either used or failed to use some of the processes, structures, incentives etc. outlined in the class. Be specific, explain the situation, explain what you did and how it was similar or different to what we have learned in class.
 - You may reflect on the tensions in some of the elements of the system be specific with different elements and please give examples as and when you can. For example, the tension between integrating start-up businesses within the parent company and the requirements for autonomy and freedom. Alternatively, consider the tension between wanting to involve a large number of diverse external innovators and needing to have IP protection in order to exploit your innovation how can this be solved?
 - You may reflect on how organizational choices for innovation including how you explore and how you execute vary along the technology S-curve, giving examples and being as specific as possible.

B. Group Effort (60%)

Groups will be chosen randomly by the professor and will not be subject to any changes.

1. **Case Reports (20%)**: You will work as a group on two case studies. You will receive detailed instructions on what is expected for that week. You will likely receive 2-3 questions on that week's case, asking you to apply one or more of the concepts that are covered in class that week. Case assignment will be due at 08:00 on each Monday. Late assignments will not be accepted. The assignment will require you to express your analysis and opinion on the assigned case by answering the questions that will be posted. Submissions could be in a report or presentation format, as you see fit. There are no minimum or maximum length requirements. If you use any data, graphs or quotes, you must give references to your sources. Failing to do so will cause you to lose points.

2. Group Project (40%): This assignment is for student teams to gain access to managers at a firm (small or large) with significant activities in technological innovation. Their brief is to interview one to three managers at the firm to understand innovation "in practice". The exercise is intended to be a learning opportunity for students to explore the main lessons of this course: to develop questions for the managers based on what they have learned, to interview managers, and then to document how they could apply, are applied and could be improved upon in a particular company. This is an opportunity to examine how managing innovation works "in practice" building on the experience of managers.

General Instructions:

- A. Identify a firm of your choice with one or more managers willing to be interviewed (for 1 1.5 hours) for your class assignment. Where possible try to interview at least two people in different positions. While you can choose the firm, there are a number of constraints; most important, the firm must be built around one or more innovative technologies as a source of its competitive advantage (i.e. not strictly service firms or consulting firms). Similarly, there are few constraints on who you interview, only that the person must have responsibility for innovation i.e. Chief Technology Officer, Head of R&D, Chief Operating Officer, VP or Director R&D, VP or Director Applications, Head of Engineering, Engineer etc.
- B. Develop a list of questions to ask the manager(s), designed to that capture the lessons and key practices from the module (i.e. the innovation processes for exploring an innovation for Assignment 1, the innovation structures and incentives for executing innovations for Assignment 2 etc.). These questions should be structured so that you can address whether the various innovation practices covered in the module are used, how they are organized, what are their strengths, what are their limitations in the "real world."
- C. Write up an analysis of your interview(s) including background information about the firm (age, size, technology, market application, stage in the innovation cycle), your questions, your assessment of the firm's strengths and weaknesses in implementing "best practices" for the aspect of innovation covered in the Module. Also include recommendations on how they might improve and your insights into the challenges associated with implementing the processes, structures and strategies covered in class in real world situations. Finally document any related practices processes, structures or strategies that the manager emphasized but we overlooked in class.
- D. The project will be finalized with an in-class presentation of your findings.

Specific instructions:

- A. Exploring innovation
 - The focus here is to understand the methods that companies use when selecting and refining a particular business concept/project: How did market and technology dynamics provide opportunities for the company? How was the opportunity concept developed? Was it a "technology looking for a home" or a need looking to be met? What sources of ideas were consulted? What methods were used – brainstorming, lead user analysis etc.? How were the risks assessed and prioritized? How did the company plan the order in which technical experiments were done – according to a standard stage-gate, by risk, by investor demands?
- B. Executing innovation
 - The focus here should be on the structures and incentives the organization utilizes to effectively allow talented individuals (from different functions) to execute innovation processes: How was the entire innovation process structured? Is it a stage-gate process? Are many activities undertaken in parallel? How are R&D teams designed? What is the incentive structure within a team and across teams? What types of incentives are given to technical and business people engaged in the process? Are outside individuals part of the innovation process for example out-sourced R&D, community-based users such as open source, academics? If so, what are the incentives for them? How is IP managed in these external relationships?

C. Exploiting innovation

• Lastly, it is important to understand the strategies that a firm must consider to most effectively exploit the value of their innovation, including innovation platforms that incorporate multiple product options, portfolios and standards. What are the drivers of commercialization? Does the firm have strong IP? How much do they rely on other assets such as market channels, brand etc.? Does the firm engage in strategic partnerships? If so, what are the basic factors that make this partnership-based approach effective? Which markets and customers will be the initial focus; which portfolio of projects will provide early success and a platform for the future? Does the firm have a platform strategy? What are the challenges of managing platforms and portfolios for the firm?

- D. Presentation
 - You are expected to present your findings in class. Group presentations will consist of the introduction of the company and the innovator(s) you chose, summary of your interview, and your conclusions and findings.

Peer Evaluation in Group Project

For both the weekly assignments and the group project, you will be graded first at the group level, then at the individual level. In other words, every member of the team will receive a base point, which will then be adjusted based on the Peer Evaluations. The assessment of your efforts by your teammates is important and it might create sizable differences between scores within teams. Any updates or additional guidelines on the team project will be uploaded to SUCourse.

Students will be asked to provide an evaluation of the members of their team for their team project. Each student will divide 100 points between the members of her team, including herself. This division should reflect that person's judgment of the contribution of the members of her team. The scores should not be merely functions of time spent by each member, but they should be measures of the "contribution;" their relative contribution to the idea generation, research, analysis, writing, oral presentation, report writing, etc. If the team was highly functional and each member. If, on the other hand, some team members did not fulfill their commitments and did not contribute as much as the others, then those members might receive lower grades.

The instructor will aggregate the points submitted by all members of the team. Every student will be given his/her aggregate peer evaluation, without disclosing the individual peer evaluations to the students. In case there is no consensus among the team, for example, if three students divide the marks evenly and the fourth one divides them unevenly, the instructor will use his/her judgment to assign peer evaluation marks--possibly after meeting with the members of the team. In cases where there are conflicting marks, it is most likely that the instructor will meet with the team members and provide a mark based on an interview. For example, in a group of four, if Students A and B believe they did most of the work, and Students C and D believe otherwise, the team may be called in for an interview in order to be fair to everyone. The peer evaluation will have a direct impact on your team project grade. To give a simple example, if the group mark is 25 out of 30, and if your peer evaluation indicates that your contribution was less than what was expected, then your team project mark will be less than 25 out of 30.

Academic Honesty:

Learning is enhanced through cooperation and as such you are encouraged to work in groups, ask for and give help freely in all appropriate settings. At the same time, you should only represent your work as yours as a matter of personal integrity. Any work submitted to be evaluated in this class should be an original piece of writing, presenting your ideas in your own words. The student must properly cite everything they borrow from books, articles, or web sites (including those in the syllabus). Although you are encouraged to discuss your ideas with others (including your friends in the class), you mustn't share your writing (slides, MS Excel files, reports, etc.) with anyone. Using ideas, text and other intellectual property developed by someone else while claiming it is your original work is *plagiarism*. Copying from others or providing answers or information, written or oral, to others is *cheating*. Unauthorized help from another person or having someone else write one's paper or assignment is *collusion*. Cheating, plagiarism and collusion are serious offenses that can result in an F grade and disciplinary action.

Classroom policies and conduct

Sabancı BA in Management Program values participatory learning. Establishing the necessary social order for a participatory learning environment requires that we all:

- Come prepared to make helpful comments and ask questions that facilitate your own understanding and your classmates.
- Listen to the person who has the floor.
- Join the session on time.

Course Material:

You may use this link to download the case study package for this course.

If there is a case assigned for the session, you are expected to fully read the case before the session, so that you can join the discussion. You can prepare for the case discussion as a group. I can use contents and examples from other sources in the course slides as well, which also count as course material.

Recommended Reading:

Strategic Management of Technological Innovation, Schilling, Melissa, McGraw-Hill Education

List of Cases and Exercises

Please carefully go over the list of classroom materials below. Every student must to read the cases in full to prepare for the debate in class.

Week 1	Course Overview
Case: Study Questions:	NA
Week 2	Technological Evolution
Case: Study Questions:	 Time Marches On 1. Why did the Swiss emerge as the European leader by the late 1800s and worldwide by the 1930s? Why them, as opposed to some other more economically significant country? 2. What led to the Japanese and Hong Kong producers becoming the worldwide volume champions? 3. Given where the worldwide watch industry was by the end of the case, where do you think it is headed? Why?
Week 3	Why do winners become losers and vice versa?
Case: Study Questions:	 Kodak and the Digital Revolution Evaluate Kodak's strategy in the traditional photography. Why has the company been successful throughout the history of the industry? Evaluate Kodak's response to Sony's introduction of the Mavica in 1981. Was it appropriate? What is Kodak's current position in digital imagining? Would Kodak's position be different had the company adopted a different imaging strategy in the 80s and the 90s? Evaluate Kodak's strategy from the mid-80s onward.
Week 4	Competitive Implications of Technology Dynamics
Case: Study Questions:	 Eli Lilly and Company: Innovation in Diabetes Care Going back in history, what mistakes did Lilly make in its product development efforts? Why were those mistakes made? As you analyze what lessons Lilly needs to have learned from its pas experiences, apply those lessons to the innovation projects on Larry Ellingson's current agenda. Is he pursuing the right opportunities? What should he do to ensure the success of these efforts?

Week 5	Where does Innovation Come From? Internal Sources and Creativity		
Case: Study Questions:	 IDEO How would you characterize IDEO's process, organization, culture, and management? Should IDEO accept the Visor project? Should they try to persuade Handspring's management to give the project more time? Or should they simply decline the project? 		
Week 6	Where does Innovation Come From? External Sources		
Case: Study Questions:	 Threadless What are the similarities and differences between a community-driven product development process and a traditional product development process within a firm? What are the barriers to entry for this kind of business? In what other areas might this model work? How might you leverage or exploit this model for innovation and product development in your business? What should be Threadless' response to the offer from Large Retailer? 		
Week 7	Commercializing Innovations		
Case: Study Questions:	 Autonomous Vehicles: The Rubber Hits the Roadbut When? 1. What factors will influence the adoption of Autonomous Vehicles and how will they be influenced by the various stakeholders? 2. If you were the CEO of a large trucking firm that was distributed uniformly across the US, what would be your course of action for the next five years? 		
Week 8	Innovation Strategy I		
Case: Study Questions:	 EMI and the CT Scanner (A) 1. What predictions can you make about industry and competitive developments as of 1972? 2. Should EMI enter this business? Why, why not? 3. How would you implement your recommendation? 		
Week 9	Innovation Strategy II: Value Innovation		
Case: Study Questions:	The Marvel Way: Restoring a Blue Ocean TBD		

Case:	Le Petit Chef	
Study Questions:	 What should Gagne do? Specifically, which projects should she fund and why? How should she handle the executive meeting? What factors explain Le Petit Chef's poor performance? What actions would you recommend to remedy the situation? 	

Week 11	Platform and Network Effects		
Case: Study Questions:	 Microsoft's Search 1. How has Microsoft responded to competitive threats and opportunities i the past? What patterns do you see? 2. How considerable was Microsoft's competitive disadvantage in Interne search and search-related advertising in 2008? If the industry remains o its current trajectory, how will Microsoft's weakness evolve over time? 3. Why is Microsoft pursuing the market for search and search-relate advertising? 4. What integrated strategic option should Microsoft's executes pursue? 		
Week 12	Protecting Innovation		
Case:	The LEGO Group: Publish or Protect?		
Study Questions:	 How much know-how should LEGO Group share its tools suppliers? How practical is it in reality to prevent spillovers? How much of LEGO Group's process innovations are actually detectable? In other words, when looking at the product, do you think you would be able to see how they made it? What is your recommendation about what to do about how they should drive their molding platform and protect it? 		
Week 13	Group Project Presentations		
Case: Study Questions:			

Week 14	Simulation
Case:	
Study Questions:	

Course Web:

Lecture slides will be uploaded to SUCourse after each class.

Detailed information on your assignments will also be announced on SUCourse. The students should upload their homework using SUCourse as word files or ppt files depending on the content.

Sabancı University uses a powerful web-based tool called Turnitin. Turnitin is the worldwide standard in online plagiarism prevention. It allows instructors to compare student papers against a database composed of millions of articles. *Every paper you submit will be scanned by Turnitin, and results will be reflected in your grades.*

Instructional Design:

The course will be taught online with an interactive and experiential approach using a variety of tools and methods. We will have:

- Guest speakers
- Case discussions
- Hands-on team project
- Group presentations

See the content for each session in the course schedule below.

Course Sc	hedule:	
Week 1		Introduction
	Content	
Module 1	: Exploring Inr	novations
Week 2		Dynamics of Technological Innovation
	Content	Case: Time Marches on: Worldwide Watch Industry
Week 3		Industrial Implications of Technology Dynamics
	Content	Case: Kodak and the Digital Revolution
Week 4		Competitive Implications of Technology Dynamics
	Content	Case: Eli Lilly and Company: Innovation in Diabetes Care
Week 5		Where does Innovation Come From? Internal Sources and Creativity
	Content	Case: IDEO Product Design
	Contoint	
Week 6		Where does Innovation Come From? External Sources
	Content	Case: Threadless – Multimedia Case
	Deliverable	Submit your company choice for the final project. Write a short description of the company, their innovation, your sources of information.
Module 2	: Executing In	novations
Week 7		Commercializing Innovations
	Content	Case: Autonomous Vehicles: The Rubber Hits the Roadbut When?
Week 8		Innovation Strategy 1
	Content	Case: EMI and the CT Scanner (A)

Week 9 Innovation Strategy II: Value Innovation

Content Case: The Marvel Way: Restoring a Blue Ocean

Deliverable Please provide an update of your Project. Which questions have you come up with so far?

Module 3: Exploiting Innovations

Week 10		Leveraging Portfolio Development
	Content	Case: Le Petit Chef
Week 11		Platforms and Network Effects
	Content	Case: Microsoft's Search
Week 12		Protecting Innovation
	Content	Case: The LEGO Group: Publish or Protect?
Week 13		Group Project Presentations
Week 14		Case study
	Content	Case : Strategic Innovation Simulation: Back Bay Battery. This is a computer based simulation. You will be required to run a company called "Back Bay Battery". Please read the provided note, complete the assignment before class, and be prepared to work in teams (to be decided in class).