

## INNOVATION MANAGEMENT

Term III (April-May 2024)

### INSTRUCTOR

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### COURSE DESCRIPTION

This course provides an in-depth exploration of innovation management theories and their practical applications. It covers the evolution of the field, starting with seminal papers and classic debates such as demand-pull versus technology-push strategies. The course progresses to examine contemporary theories, including open innovation and the role of collaboration networks in fostering innovation. Students will also delve into the concept of innovation ecosystems and how they contribute to organizational and territorial innovation. Additionally, the course addresses emerging issues in innovation management, such as social innovation, exaptation, and retrovation, providing students with a comprehensive understanding of the evolving landscape of innovation theory and practice.

### COURSE OBJECTIVES

1. **Critical Thinking Development:** The primary goal of this course is to cultivate critical thinking skills within the realm of Innovation Management. Students will be encouraged to analyze, evaluate, and synthesize information related to innovative practices, theories, and case studies.
2. **Engagement in Lively Discussions:** Through active participation in class discussions, students will have the opportunity to engage with peers and instructors, sharing diverse perspectives and insights on various aspects of innovation management. These discussions will serve as a platform for exchanging ideas, challenging assumptions, and exploring different viewpoints.
3. **Presentation Skills Enhancement:** Students will practice presenting scientific articles related to innovation management. This aspect of the course aims to improve students' ability to communicate complex ideas effectively, both orally and visually, fostering skills necessary for conveying research findings and insights to diverse audiences.
4. **Defense of Ideas:** Students will develop the capacity to defend their thoughts and arguments related to innovation management. Through structured debates, presentations, and peer critiques, students will learn to articulate and justify their viewpoints, strengthening their ability to engage in constructive discourse and defend their positions effectively.
5. **Questioning and Commentary Skills:** Another key objective of the course is to equip students with the skills to ask probing questions and provide constructive comments on the work of others. By engaging in thoughtful critique and feedback sessions, students will learn to evaluate the strengths and weaknesses of different approaches to innovation management, further honing their analytical abilities.

## EXAM & EVALUATION

### In-class article presentations & debates (60%)

The first part of the evaluation consists of in-class presentations and debates. In each class, starting from class #2, there will be either a paper presentation or a debate around a specific motion.

In the paper presentation session, some students will present the content of a selected paper with a Power Point presentation while other students will act as discussants of the paper with their Power Point presentations. The articles will be assigned by the instructor (see them in the “Course materials” sections).

In the debate session, the instructor will pass to students a motion, containing some claims on innovation theory and practice. Some students will talk in favor of the motion while others will talk against it, supporting their thesis through appropriate references to articles and empirical examples.

Guidelines about presenting and discussing an article, as well as participating in the debates will be provided during the first lesson of the course. Presenters are responsible for providing handouts for all the participants. Please see below a possible schedule of the article presentations and the debates.

		Student 1	Student 2	Student 3	Student 4	Student 5	Student 6
Class #2	Presenters article #1	X	x				
	Discussant article #1			x	x		
	Presenter article #2			x	x		
	Discussant article #2					x	x
	Presenter article #3					x	x
	Discussant article #3	x	x				
Class #3	Speaking for the motion	x	x	x			
	Speaking against the motion				x	x	x
Class #4	Presenters article #1	X	x				
	Discussant article #1			x	x		
	Presenter article #2			x	x		
	Discussant article #2					x	x
	Presenter article #3					x	x
	Discussant article #3	x	x				
Class #5	Speaking for the motion				x	x	x
	Speaking against the motion	x	x	x			
Class #6	Presenters article #1			x	x		
	Discussant article #1	x	x				
	Presenter article #2					x	x
	Discussant article #2			x	x		
	Presenter article #3	x	x				
	Discussant article #3					x	x

### Individual theoretical article on selected topics (40%)

The second part of the evaluation consists of writing a literature review. Each student will self-select a topic of interest, possibly related to his/her area of research. The selection of the topic should be discussed with the instructors and should be defined by the end of April.

The literature review will aim at illustrating and discussing to what extent innovation management theories have been adopted for exploring the student’s topic of choice: for instance, sustainability issues have been analysed adopting open innovation theory and innovation ecosystem theory. Why these

theories have been adopted? Which are the issues explored through the adoption of these theories? Which are the main findings of the empirical articles?

Further details about the assignment and how to write a theoretical article will be provided during the course.

## CLASS SCHEDULE

Class	Date	Hours	Topics
1	Wed 3 Apr	9-12	Introduction to the course
2	Thu 4 Apr	14-18	Science and Technology Evolutionary Trajectories
3	Tue 9 Apr	14-17	Technology-Push Innovation and Demand-Pull Innovation
4	Wed 10 Apr	9-12	Open innovation and collaboration networks
5	Wed 17 Apr	9-12	Innovation ecosystems
6	Thu 18 Apr	14-18	Emerging topics in Innovation Management

## COURSE MATERIALS

### Class 1: Introduction to the course

#### Required readings

- Kline, S. J., & Rosenberg, N. (2010). An overview of innovation. *Studies on science and the innovation process: Selected works of Nathan Rosenberg*, 173-203.
- Tidd, J. (2001). "Innovation management in context: environment, organization and performance". *International Journal of Management Reviews*, 3, 169–83.
- Morgan, K. (2004). "The exaggerated death of geography: learning, proximity and territorial innovation systems". *Journal of Economic Geography*, 4(1), 3-21.

#### Further Readings

- Schumpeter, Joseph A. (1950). *Capitalism, Socialism and Democracy*. 3rd ed. New York: Harper-Collins.
- Schilling M.A. (2020), *Strategic Management of Technological Innovation*. New York: McGraw-Hill.

### Class 2: Science and Technology Evolutionary Trajectories

#### Required Readings

- Dosi G. (1982). Technological paradigms and technological trajectories. *Research Policy*, 11: 147-162.
- Abernathy WJ, Utterback JM. (1978). Patterns of Industrial Innovation. *Technology Review*, 80 (7) June-July: 40-47.
- Fagerberg, J., Verspagen, B. (2009). Innovation studies — The emerging structure of a new scientific field. *Research Policy*, 38(2): 218- 233.

#### Further Readings

- Khun, T. (1962). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Crane, D. (1969). "Social Structure in A Group of Scientists: A Test of the "Invisible College" Hypothesis." *American Sociological Review* 34 (3): 335–352. doi:10.2307/2092499.

- Nelson, R., & Winter, S. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, MA: Belknap Press of Harvard University Press.
- Tushman ML, Anderson P. (1986). Technological Discontinuities and Organizational Environments. *Administrative Science Quarterly*, 31: 439-465.
- Sedita, S. R., Caloffi, A., & Lazzeretti, L. (2020). The invisible college of cluster research: a bibliometric core–periphery analysis of the literature. *Industry and Innovation*, 27(5), 562-584.

### **Class 3: Technology-Push Innovation and Demand-Pull Innovation**

#### **Required Readings**

- Von Hippel, E. (1986). Lead users: a source of novel product concepts. *Management Science*, 32(7), 791-805.
- Di Stefano G., Gambardella A., Verona G. (2012) Technology push and demand-pull perspectives in innovation studies: Current findings and future research directions. *Research Policy*, 41 (8): 1283-1295.
- Franke N., Poetz M. K., Schreier M. (2014). Integrating Problem Solvers from Analogous Markets in new Product Ideation, *Management Science*, 60(4): 1063-1081.

#### **Further Readings**

- Mowery, D., & Rosenberg, N. (1979). The influence of market demand upon innovation: a critical review of some recent empirical studies. *Research Policy*, 8(2), 102-153.
- Von Hippel, E. (2001). User toolkits for innovation. *Journal of Product Innovation Management: An International Publication of the Product Development & Management Association*, 18(4), 247-257.
- Baba Y., Shichijo N., Sedita S.R. (2009) How Do Collaborations with Universities Affect Firms' Innovative Performance? The Role of Pasteur Scientists in the Advanced Materials Field, *Research Policy*, 38 (5), 756-764. <https://doi.org/10.1016/j.respol.2009.01.006>.
- Priem R.L., Butler J.E., Li S. (2013). Toward reimagining Strategy research: Retrospection and prospection on the 2011 AMR Decade Award article. *Academy of Management Review*, 38(4): 471-489

### **Class 4: Open innovation and collaboration networks**

#### **Required Readings**

- Cohen, W.M., & Levinthal, D.A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35: 128-152.
- Chesbrough, H. (2003). The era of open innovation. *Sloan Management Review*, 44(3): 35-41
- Laursen, K., & Salter, A. (2006). Open for innovation: the role of openness in explaining innovation performance among UK manufacturing firms. *Strategic Management Journal*, 27(2), 131-150.

#### **Further readings**

- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). "Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology". *Administrative Science Quarterly*, 116-145.
- Chesbrough, H. W. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Harvard Business Press.
- Schilling, M. A., & Phelps, C. C. (2007). Interfirm collaboration networks: The impact of largescale network structure on firm innovation. *Management Science*, 53(7): 1113-1126.

- Belussi F., Sammarra A., Sedita S.R. (2010), Learning at the boundaries in an “Open Regional Innovation System”: A focus on firms’ innovation strategies in the Emilia Romagna life science industry, *Research Policy*, 39 (6), 710-721. <https://doi.org/10.1016/j.respol.2010.01.014>
- Lichtenthaler, U. (2011). Open innovation: Past research, current debates, and future direction. *Academy of Management Perspectives*, 25(1): 75-93.
- Garriga, H., von Krogh, G., & Spaeth, S. (2013). How constraints and knowledge impact open innovation. *Strategic Management Journal*, 34(9): 1134-1144.
- Felin, T., & Zenger, T. R. (2014). Closed or open innovation? Problem solving and the governance choice. *Research Policy*, 43(5): 914-925.
- Funk, R. (2014). Making the most of where you are: Geography, networks, and innovation in organizations. *Academy of Management Journal*, 2014, 57 (1): 193–222.
- Sedita, S. R., & Grandinetti, R. (2023). Beyond R&D: a configurational approach to open innovation in the Veneto region. *European Planning Studies*, 31(5), 1050-1069. <https://doi.org/10.1080/09654313.2022.2114316>.

## **Class 5: Innovation ecosystems**

### **Required Readings**

- Moore, J. F. (1993). Predators and prey: a new ecology of competition. *Harvard Business Review*, 71(3), 75-86.
- Iansiti, M., & Levien, R. (2004). Strategy as ecology. *Harvard Business Review*, 82(3), 68-81.
- Adner, R. (2006). Match your innovation strategy to your innovation ecosystem. *Harvard Business Review*, 84(4), 98.

### **Further readings**

- Clarysse, B., Wright, M., Bruneel, J., & Mahajan, A. (2014). Creating value in ecosystems: Crossing the chasm between knowledge and business ecosystems. *Research Policy*, 43(7), 1164-1176.
- Oh, D. S., Phillips, F., Park, S., & Lee, E. (2016). Innovation ecosystems: A critical examination. *Technovation*, 54, 1-6.
- Adner, R. (2017). Ecosystem as structure: an actionable construct for strategy. *Journal of Management*, 43(1), 39-58
- Ritala, P., & Almpantopoulou, A. (2017). In defense of ‘eco’ in innovation ecosystem. *Technovation*, 60, 39-42.
- Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic Management Journal*, 39(8), 2255-2276.
- Suominen, A., Seppänen, M., & Dedehayir, O. (2018). A bibliometric review on innovation systems and ecosystems: a research agenda. *European Journal of Innovation Management*, 22(2), 335-360.
- Granstrand, O., & Holgersson, M. (2020). Innovation ecosystems: A conceptual review and a new definition. *Technovation*, 90, 102098.
- Blasi S., Sedita S.R. (2020) The diffusion of a policy innovation in the energy sector: evidence from the collective switching case in Europe, *Industry and Innovation*, 27(6), 680-704, <https://doi.org/10.1080/13662716.2019.1616535>.
- Baldwin, C. Y., Bogers, M. L., Kapoor, R., & West, J. (2024). Focusing the ecosystem lens on innovation studies. *Research Policy*, 53(3), 104949.

## **Class 6: Emerging topics in Innovation Management (Social innovation, Exaptation,**

## Retrovation)

### Required readings

Phillips, W., Lee, H., Ghobadian, A., O'Regan, N. and James, P. (2015). 'Social innovation and social entrepreneurship: A systematic review'. *Group & Organization Management*, 40, 428–61.

Andriani, P., and Cattani, G. (2016). Exaptation as source of creativity, innovation, and diversity: Introduction to the special section. *Industrial and Corporate Change*, 25, 115–131.

Suominen, J., & Sivula, A. (2016). Retrovation—the concept of a historical innovation. *WiderScreen*, 19(3–4).

### Further readings

Sedita S.R. (2012) Leveraging the intangible cultural heritage: novelty and innovation through exaptation. *City, Culture and Society*, 3 (4): 251-259. <https://doi.org/10.1016/j.ccs.2012.11.009>

Bega, E., Mongelli, L., Rullani, F., & Sedita, S. R. (2021). Social Entrepreneurship and Social Innovation Between Global North and Global South: The Ashoka Case. In *Rethinking Clusters* (pp. 159-173). Springer, Cham.

Sedita S.R., Blasi S., Ganzaroli A. (2022) Exaptive innovation in constraint-based environments: lessons from COVID-19 crisis. *European Journal of Innovation Management*, 25 (6), 549-566. <https://doi.org/10.1108/EJIM-05-2021-0235>. Open access.

Blasi S., Sedita S.R. (2022) Mapping the emergence of a new research field: an exploration of the intellectual structure of the B Corp research. *Corporate Social Responsibility and Environmental Management*, 29 (1): 107-123. <https://doi.org/10.1002/csr.2187>. Open access.

Sedita S.R., Ozeki T. (2022) Path renewal dynamics in the Kyoto kimono cluster: How to revitalize cultural heritage through digitalization. *European Planning Studies*, 30 (9), 1736-1754. <https://doi.org/10.1080/09654313.2021.1972938>.

Greidanus, N. S. (2022). Innovating from the Past: Toward a Theory of Retrovation. In *Academy of Management Proceedings* (Vol. 2022, No. 1, p. 17515). Briarcliff Manor, NY 10510: Academy of Management.