Ph.D. Program in "Economics and Management"
2015

Knowledge Management
4ᵗᵇ Term

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Course description

This course introduces students to some foundational ideas and discusses emerging research fields in the domain of knowledge management, by emphasizing the linkages with innovation, organization and marketing theories and their intersection.

The course aims at offering an integrated vision of approaches concerning knowledge management within the firm and its role in firm's competitiveness. The course offers also an analysis of theoretical contributions that discuss about knowledge management in collaborative environment as well as in geographical contexts.

The course covers the following topics:
   a) Learning, knowledge management and the firm
   b) Types of knowledge: from tacit knowledge to codification
   c) Knowledge cycle: production, elaboration, use
   d) Knowledge co-production: the role of users and communities
   e) Knowledge management and geography
   f) Knowledge-intensive business services

Grading

The grades will be based on the following components:
- Class participation, materials reading and comprehension: 20%
- Paper presentation and discussion: 40%
- Term Paper: 40%

Readings

Each student is supposed to have read the papers indicated in this syllabus before attending the courses. Students will be assigned specific references (1 or 2 articles) that will be presented and discussed with the instructors and peers in classes. Each student will prepare a presentation of 20 minutes (power point slides required) for each of the papers assigned, followed by 10 minutes of discussion. Refer to Appendix 1 for an outline of how to address the structure and content of the presentation.

Term paper

Each student is expected to write a term paper on a topic relating to the course; specific topics will be clarified and assigned to students at the end of the course by the instructor. Acceptable forms include:

1. A conceptual study. The paper could be an extensive literature review of a relatively narrow topic related to material studied (supplementary readings as a first support).

2. A plan for an empirical study. This would provide a literature review, identify a focused research opportunity, and then suggest a research design to conduct the research.

The papers are expected to be between 5,000 and 8,000 words inclusive of all exhibits and references. Instructor will communicate the deadline for the submission within the final exam period.

Class 1 – Knowledge management and the firm
Arrow K.J. (1969), "Classificatory notes on the production and transmission of technical knowledge", American Economic Review P&P, 59.
Drucker P.F. (1999), "Knowledge-worker productivity: The biggest challenge", California Management Review, Winter.
Grant R.M. (1996), "Toward a knowledge-based theory of the firm", Strategic Management Journal, vol. 17, Winter.
Kogut B., Zander U. (1996), "What firms do? Coordination, Identity, and Learning", Organization Science vol. 7, n. 5.

Class 2 – Types of knowledge
Polanyi M. (1983), The Tacit Dimension, Gloucester, MA (orig. 1966). (selected chapters)
Nonaka I. (1994), "A Dynamic Theory of Organizational Knowledge Creation", Organization Science, Vol.5, n.1
Nonaka I., Konno N. (1998), "The Concept of Ba: Building a Foundation for Knowledge Creation", California Management Review Vol. 40, n. 3.
Jensen, M., Johnson, B., Lorenz, E., & Lundvall, B. (2007). Forms of knowledge and modes of innovation. Research Policy, 36(5), 680–693. doi:10.1016/j.respol.2007.01.006

Class 3 – Managing knowledge: a dynamic process
Argyris C., Schoen D. (1978), Organizational learning: a theory of action persective, Addison, Reading, Mass. (selected chapters)
Nelson R.R., Winter S.G. (1982), An Evolutionary Theory of the Firm, Belknap, Cambridge, Mass. (selected chapters)

Pfeffer J., Sutton R.I. (2000), The knowledge-doing gap. How smart companies turn knowledge into action, Harvard University Press, Cambridge, MA. (selected chapters)

Cohen W., Levinthal D. (1990), "Absorptive Capacity: a New Perspective on Learning and Innovation", Administrative Science Quarterly, vol. 35, pp. 128-152.

March J.G. (1991), "Exploration and Exploitation in Organizational Learning", Organization Science, vol. 2, n. 1.

Class 4 – Managing Knowledge: codification

Baldiw C.Y., Clark K.B. (1997), "Managing in an Age of Modularity", Harvard Business Review, September-October.

Sanchez R., Mahoney J.T. (1996), "Modularity, Flexibility, and Knowledge Management in Product and Organization Design", Strategic Management Journal, Vol. 17, Winter Special Issue.

Simon H. A. (1976), Administrative Behavior: a study of decision-making processes in administrative organization, Fress Press, NY (ed. orig. 1945). (selected chapters)

Brown, J.S. and Duguid, P. (2000), "Balancing act: how to capture knowledge without killing it", Harvard Business Review, Vol. 78 No. 3, pp. 73-80.

Zander U., Kogut B. (1995), "Knowledge and the Speed of Transfer and Imitation of Organisational Capabilities: An Empirical Test", Organization Science, n. 1.

Arora A., Gambardella A., Rullani E. (1998), "Division of Labour and the Locus of Inventive Activity", Journal of Management and Governance, n. 1, Fall.

Class 5 – Knowledge, networks and social dynamics

Dyer J.H., Nobeoka K. (2000), "Creating and managing a high-performance knowledge-sharing network: the Toyota case", Strategic Management Journal, vol. 21, n. 3.

Kogut B. (2000), "The Network as knowledge: generative rules and the emergence of structure", Strategic Management Journal, vol. 21, n. 3 (Special Issue).

Lave J., Wenger E. (1991) Situated Learning, Cambridge University Press, Cambridge, Mass. (selected chapters)

Cook S.D.N., Brown J.S. (1999), "Bridging Epistemologies: The Generative Dance Between Organizational Knowledge and Organizational Knowing", Organization Science, vol. 10, n. 4, July-August.

Class 6 – Communities of practice

Boland R.J., Tenkasi, R.V., (1995). "Perspective making and perspective taking in communities of knowing", *Organization Science*, vol. 6(4): 350-372

Brown J.S., Duguid P. (1991), "Organizational Learning and Communities-of-practice: Toward a Unified View of Working, Learning and Innovation", Organization Science, Vol.2, n. 1.

Brown, J. S., & Duguid, P. (2001). "Knowledge and organisation: A social-practice perspective". *Organization Science*, 12(2), 198-213.

Hansen M.T., Nohria N., Tierney T. (1999). "What's your strategy for managing knowledge?". *Harvard Business Review*, Vol. 77, No. 2 (March-April), pp. 106-116.

Von Hippel, E. (1994). Sticky information and the locus of problem solving: implications for innovation. *Management Science*, 40(4), 429-429.

Wenger E., Snyder W.M. (2000), "Communities of Practice: The Organizational Frontier", Harvard Business Review, January-February.

Sawhney M., Prandelli E. (2000), "Communities of Creation: Managing Distributed Innovation in Turbulent Markets", *California Management Review* n. 4, Summer.

Class 7 – User-driven innovation and symbolic knowledge

Franke, N. and Shah, S. (2003) "How community matters for user innovation: an exploration of assistance and sharing among end-users", *Research Policy*, 32

Thomke S., von Hippel E. (2002) "Customers as Innovators. A new way to create value", *Harvard Business Review*, April, pp. 5-11.

von Hippel, E. (1978) "A customer-active paradigm for industrial product idea generation", *Research Policy*, 7, p. 240–266.

von Hippel E. (2005), *Democratizing innovation*. Boston: MIT Press (http://web.mit.edu/evhippel/www/democ1.htm)

Bertola P., Teixeira J.C. (2002), "Design as a Knowledge Agent", *Design Studies*, vol. 24, n. 2

Verganti, R. (2006) "Innovation through design". *Harvard Business Review,* 84**,** pp. 114-122.

Brown, T. (2008) "Design Thinking", *Harvard Business Review*, 86(6), 84-92.

Pisano, G. P., & Shih, W. C. (2012). Does Really America Need Manufacturing. Harvard Business Review, 90(3), 94–102.

Class 8 – Knowledge management and geography

Bathelt H, Malmberg A, Maskell P, 2004, ``Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation'' Progess in Human Geography 28 31 ^ 56

Moodysson J, Coenen L, Asheim B, 2008, "Explaining spatial patterns of innovation: analytical and synthetic modes of knowledge creation in the Medicon Valley life-science cluster" Environment and Planning A 40(5) 1040 – 1056

Roberts, J., (2000). "Knowledge Systems and Global Advertising Services". Creativity and Innovation Management, 9(3), pp.163-170.

Belussi F. S. Sedita (2012), Industrial districts as open learning systems: combining emergent and deliberate knowledge structures, Regional Studies, 46,2, p. 165-184.

Class 9 – Knowledge-intensive business services

Bettencourt, L.A., Ostrom, A.L., Brown, S.W. and Roundtree, R.I. (2002), "Client co-production in knowledge-intensive business services", California Management Review, Vol. 44 No. 4, pp. 100-28.

Den Hertog, P. (2000), "Knowledge-intensive business services as co-producers of innovation", International Journal of Innovation Management, Vol. 4 No. 4, pp. 491-528.

Miles, I. (2005), "Knowledge intensive business services: prospects and policies", Foresight, Vol. 7 No. 6, pp. 39-63.

Muller, E. and Doloreux, D. (2009), "What we should know about knowledge-intensive business services", Technology in Society, Vol. 31 No. 1, pp. 64-72.

Tether, B.S., Hipp, C. and Miles, I. (2001), "Standardisation and particularisation in services: evidence from Germany", Research Policy, Vol. 30 No. 7, pp. 1115-38.

Bettiol M., Di Maria E., Grandinetti R. (2012), "Codification and Creativity: Knowledge Management Strategies In Knowledge-Intensive Business Services", *Journal of Knowledge Management*, Vol. 16, No. 4, pp. 550-562.

Di Maria E., Grandinetti R. and Di Bernardo B. "Introduction" in Di Maria E., Grandinetti R. and Di Bernardo B. (Eds.), Exploring Knowledge-Intensive Business Services. Knowledge Management Strategies, Palgrave, pp. 1-12.

APPENDIX 1 – Assessing a scholarly article

1. Motivation and literature review
- Is the research question interesting and relevant based on the literature review?
- Do they review the literature relevant to the research question?
2. Theoretical framework
- Is it clear which theory or theories the authors draw from to develop their hypotheses and are they fully explored?
3. Methodology
- Are the methods consistent with the theory?
- Are the data collection efforts unbiased?
- Does the data offer adequate control variables?
- Are the variables measured in a reasonable way and consistently with the theoretical framework?
4. The discussion
- Does it correctly reconcile the theory and evidence found in the paper?
- Does it place the paper in the context of the larger literature?
- Does it identify limitations and opportunities for future research?