

# ES956-15 Innovation

**22/23**

**Department**

WMG

**Level**

Taught Postgraduate Level

**Module leader**

Ali Ahmad

**Credit value**

15

**Module duration**

1 week

**Assessment**

Multiple

**Study location**

University of Warwick main campus, Coventry

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## Description

### Introductory description

This module enables participants from various professional and academic backgrounds to critically assess the value of approaches designed to facilitate innovation in various organizational contexts. Participants will assess and apply concepts, models and frameworks to understand and critically evaluate the potential for innovation in corporations and start-ups. There is an emphasis on innovation management and its critical alignment with strategy in order to deliver measurable commercial gains. The concepts and models discussed can be used by participants based in varying industrial and professional settings and at different stages of career. Upon completion, they will be able to deploy innovative thinking tools which will support set strategic objectives, scope the impact of new competitive pressures and identify new disruptive opportunities for the organizations they are based at. Along with an engagement with the various innovation bodies-of-knowledge, toolkits, management techniques and case studies, there is a robust emphasis on application of learning through the use of Escape Room pedagogy, a Lego Mindstorms-based workshop and an online industry standard innovation and strategy simulation. These methods help in the augmentation and contextualization of learning on the topic and add a vocational dimension to the teaching and learning strategies adopted for the module.

### Module aims

The principle aim of the module is to develop a set of skills in participants that help them 'do'

innovation in a commercial context. This necessitates learning 'about' concepts, models and frameworks to critically evaluate the nature of creativity, innovation and entrepreneurship. Participants are required to think about non-traditional and new approaches for sourcing and commercialising intellectual property from the perspective of both industrialized and developing or emerging economy contexts. As a result, participants will be able to critically assess the limitations of extant models and methods, and be able to configure the conditions under which such methods and models would yield 'ideal' outcomes.

## Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

- Innovation 2.0 with new and digital media
- Entrepreneurial effectuation
- New technologies and public sector innovation
- Disruptive innovation and 'jobs-to-be-done'
- Intellectual property management with Stage Gates
- Practising creativity with new toolkits
- Innovation "Escape Room" Challenge
- Innovation commercialization with Lego Mindstorms EV3 OR Innovation & Strategy with StratSim Management (depending on whether the module is delivered on-campus, online or via blended learning).

## Learning outcomes

By the end of the module, students should be able to:

- Evaluate the nature of innovation and be able to identify the potential for innovation within an organisation and/or network.
- Systematically analyse the impact of innovation on the performance of industries.
- Critically assess the key tools and techniques for managing innovation for application to actual business situations.
- Practically demonstrate innovation management skills in an innovation simulation and post-module group projects.

## Indicative reading list

Main Textbook

Ahmad, A.J., Bhatt, P. and Acton, I. 2019. Entrepreneurship in Developing Countries: For Business & Non-Business Students. Sage, New Delhi-India.

Books

Ariely, D. 2008. Predictably Irrational: The Hidden Forces That Shape Our Decisions, HarperCollins.

Chesbrough, H. 2011. *Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era*, Wiley.

Chesbrough, H., Vanhaverbeke, & West, J. 2006. *Open Innovation: A New Paradigm for Understanding Industrial Innovation*. Oxford University Press.

Christensen, C.M. 1997. *The innovator's dilemma: when new technologies cause great firms to fail*, Boston, Massachusetts, USA: Harvard Business School Press.

Christensen, C.M.; Raynor, M.E. 2003. *The innovator's solution: creating and sustaining successful growth*, Boston, Massachusetts, USA: Harvard Business School Press.

Gladwell, M. 2008. *Outliers: The Story of Success*. Little, Brown and Company.

Kahneman, D. 2012. *Thinking Fast & Slow*. Penguin: London

Herzog, P. 2011.. *Open and Closed Innovation: Different Cultures for Different Strategies* (2nd ed.).

Sarasvathy, S.D. 2009. *Effectuation: Elements of Entrepreneurial Expertise*. Northampton, MA: Edward Elgar Publishing.

#### Book Chapters

Silverstein, D., Samuel, P., & Decarlo, N. (2012). Jobs to be Done. In *The Innovator's Toolkit: 50+ techniques for predictable and sustainable organic growth* (2nd ed., pp. 3–12). John Wiley & Sons, Incorporated.

#### Articles

Bloch, C., and Bugge, M.M. 2013. Public sector innovation — From theory to measurement. *Structural Change and Economic Dynamics*, 27, 133-145.

Blomberg, A., Kallio, T. and Pohjanpää, H. 2017. Antecedents of organizational creativity: drivers, barriers or both?. *Journal of Innovation Management*, [online] 5(1).

Bugshan, H. 2015. Open innovation using web 2.0 technologies' *Journal of Enterprise Information Management* 28(4), 595–607.

Chandler, G.N., DeTienne, D.R., McKelvie, A., Mumford, T.V., 2011. Causation and effectuation processes: A validation Study. *Journal of Business Venturing* 26 (2011), pp. 375-390.

Chesbrough, H., and Brunswicker, S. 2014. A Fad or a Phenomenon?: The Adoption of Open Innovation Practices in Large Firms, *Research-Technology Management*, 57:2, 16-25.

Cheshbrough, H., 2011. Bringing Open Innovation to Services. MITSloan. Available at: <http://sloanreview.mit.edu/article/bringing-open-innovation-to-services/>.

Chiaroni, D., Chiesa, V., & Frattini, F. (2011). The Open Innovation Journey: How firms dynamically implement the emerging innovation management paradigm. *Technovation*, 31(1), 34–43.

Christensen, C. M., Anthony, S. D., Berstell, G., & Nitterhouse, D. 2007. Finding the Right Job For Your Product. *MIT Sloan Management Review*, 48(3), 38–47.

- Huizingh, E. K. R. E. (2011). Open innovation: State of the art and future perspectives. *Technovation*, 31(1), 2–9.
- King, A. and Baatartogtokh, B. 2015. How useful is the theory of disruptive innovation?. *MIT Sloan management review*, [online] (Fall 2015).
- Marjanovic, S., Fry, C., & Chataway, J. 2012. Crowdsourcing based business models: In search of evidence for innovation 2.0. *Science and Public Policy*, 39(3), 318–332.
- Marques, J. P. 2014. Closed versus open innovation: evolution or combination?. *International Journal of Business and Management* 9(3), 1833–8119.
- Mergel, I., and Desouza K. 2013. Implementing Open Innovation in the Public Sector: The Case of Challenge.gov, *Public Administration Review*, 73(6), 882 – 890.
- Mostafa, M. and El-Masry, A. 2008. Perceived barriers to organizational creativity: A cross-cultural study of British and Egyptian future marketing managers. *Cross Cultural Management: An International Journal*, 15(1).
- Mthanti, T. and Urban, B. 2013. Effectuation and entrepreneurial orientation in high-technology firms. *Technology Analysis & Strategic Management*, [online] 26(2).
- Oestreicher, K. 2011. Segmentation & the Jobs-to-be-done theory: A Conceptual Approach to Explaining Product Failure. *Journal of Marketing Development and Competitiveness*, 5(2), 103–121.
- Ooms, W., Bell, J. and Kok, R. A. 2015. Use of social media in inbound open innovation: Building capabilities for absorptive capacity. *Creativity and Innovation Management* 24(1), 136–150.
- Roberts, D., Hughes, M. and Kertbo, K. 2014. Exploring consumers' motivations to engage in innovation through co-creation activities', *European Journal of Marketing* 48(1/2), 147–169.
- Saldanha, F. P., Cohendet, P. and Pozzebon, M. 2014. Challenging the stage-gate model in crowdsourcing: The case of fiat mio in brazil, *Technology Innovation Management Review* 4(9).
- Sarasvathy, S. 2001. Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency. *The Academy of Management Review*, [online] 26(2).
- Windrum, P. and Koch, P., 2008. *Innovation in public sector services: entrepreneurship, creativity and management*. Cheltenham: Edward Elgar Publishing.

## **Subject specific skills**

- Innovation management
- Using the disruptive innovation and jobs-to-be-done toolset
- Intellectual property commercialisation strategies
- Integrating web 2.0 and new and digital media into new product, service or process development

- Entrepreneurial heuristics
- Using creativity toolkits

## Transferable skills

- Product prototyping
- Creating optimised teams using individual member profiling techniques
- Presentation and business pitching
- Critical thinking and evaluation
- Market research
- Business case development

## Study

### Study time

Type	Required
Lectures	20 sessions of 1 hour 30 minutes (20%)
Online learning (independent)	21 sessions of 1 hour (14%)
Private study	29 hours (19%)
Assessment	70 hours (47%)
Total	150 hours

### Private study description

Reading the module's associated textbook (available in the library) - Entrepreneurship in Developing & Emerging Economies, watching and commenting on the pre-recorded text-book based chapter-by-chapter videos hosted on YouTube, completing a Belbin Team roles assessment, reading through the module's IMA simulation's student manual and associated powerpoint presentations for in-class preparedness. Students will be expected to undertake private study outside of the module's teaching week.

### Costs

Category	Description	Funded by	Cost to student
IT and software	The use of StratSim Management (approved online simulation for online or blended learning NOT face-to-face) @ US\$50 (approx.) per participant.	Department	£0.00

## Assessment

You do not need to pass all assessment components to pass the module.

### Assessment group A2

	<b>Weighting</b>	<b>Study time</b>	<b>Eligible for self-certification</b>
Group Video Case Development & Analysis	60%	40 hours	Yes (extension)
<p>Student teams would act as "expert innovators" brought in as consultants by an organisation of their choice and present solution to innovation problems in the video format. Production equipment is available for booking out, as is the ability to book production facilities (such as quiet rooms). In addition, student teams will have the option to book upto two coaching sessions with members of the Innovation Teaching Team to receive feedback on early drafts. Outputs will be hosted on GoReact via Moodle where detailed written (typed) feedback will be provided. Verbal feedback will be provided in a formal meeting after marking is complete.</p>			
Individual Reflective Diary on Group Assessment	20%	10 hours	Yes (extension)
<p>Participants to individually prepare a 500 word reflective diary analysing key individual learning during the group video production task.</p>			
Group In-Module Assessment on an Innovation Simulation	10%	10 hours	No
<p>This assessment will simulate aspects of managing an innovative and technology-based project within a commercial organisation. Students in teams are required to develop an innovative use of sensor technology with commercial potential using Lego Mindstorms. In case of an online running a comparable simulation - StratSim Management - will be deployed, which is based on the automotive sector.</p>			
Individual Innovation & Entrepreneurship Quiz	10%	10 hours	No
<p>An upto 30-minute quiz comprising of 35 questions (multiple choice and true-false) based on the associated textbook and the module's syllabus.</p>			

### Assessment group R1

	<b>Weighting</b>	<b>Study time</b>	<b>Eligible for self-certification</b>
Innovation Post-Module Written Assignment	100%		Yes (extension)
<p>In case the group video case analysis is deemed a 'fail', then individual students part of the failing</p>			

## Weighting

## Study time

## Eligible for self-certification

team will be required to attempt a re-submission question in writing. The focus in this question would be test students' critical thinking, analysis and literature evaluation capabilities towards the overall aim of applying learned knowledge to a specific innovation context or case study.

### Feedback on assessment

Feedback will be provided in both face-to-face and written forms via feedback sheets. Verbal feedback will be recorded for dissemination to teams post assessment and will also be archived for moderation purposes.

Written feedback on template sheets will contain both group and individual feedback on the assessment items "Innovation Strategy for a Chosen Case Organisation", "Reflective Diary on Group Assessment" and "Group In-Module Assessment on an Innovation Simulation".

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## Availability

### Courses

This module is Core for:

- Year 1 of TWMS-H1S6 Postgraduate Taught Innovation and Entrepreneurship (Full-time)

This module is Core optional for:

- TWMS-H1TD Postgraduate Taught Supply Chain and Logistics Management (Part-time)
  - Year 1 of H1TD Supply Chain and Logistics Management (Part-time)
  - Year 1 of H1TD Supply Chain and Logistics Management (Part-time)

This module is Optional for:

- Year 1 of TWMS-H1S9 Postgraduate Taught Management for Business Excellence (Full-time)
- Year 1 of TCHA-F1PW Postgraduate Taught Polymer Science
- Year 1 of TWMS-H1SD Postgraduate Taught Supply Chain and Logistics Management (Full-time)