

Course Details:

Course Title: Technology in Business
Course Code: MGT-111
Program: BBA 2K23

Credit Hours: 2
Pre-requisite: Nil
Sections: A & B

Course Description:

Technological innovation is one of the most critical aspects of business and is one of the primary drivers of wealth creation for companies and society. Notably, with the advent of the Industrial Revolution 4.0, technological innovation has been recognised as a fundamental factor in altering the functioning of businesses and institutions. This course offers an overview of technology strategy. It aims to provide the students with the necessary knowledge and tools to understand, anticipate, acquire, and use technology to attain competitiveness in the marketplace. The course addresses technology evolution, adoption, diffusion, and change and protects technology and intellectual property.

The course will integrate both an academic and practitioner view of corporations' challenges in managing technological innovation and approaches to dealing with these challenges successfully. Overall knowledge about the subject is needed for those who wish to take more advanced courses in technology management.

Course Learning Outcomes:

1. **CLO 1. *Understand*** the importance of technological innovation for corporations, governments, and societies.
2. **CLO 2. *Examine*** the industry dynamics to become technologically dominant and increase the firm value.
3. **CLO 3. *Analyse*** a firm position to craft a technology strategy for protecting and diffusing technological innovation.
4. **CLO 4. *Develop*** a strategy to deploy technological innovation into the marketplace effectively.
5. **CLO 5: *Design*** written reports which effectively communicate ideas and logic in a structured manner.

Recommended Reading, Textbooks, Reference books:

Textbook (s):

Shane, S. 2009. *Technology Strategy for Managers and Entrepreneurs*. Pearson Education Inc

Schilling, M. 2020. *Strategic Management of Technological Innovation*. McGraw-Hill Inc. (6th Edition); 4th and 5th Edition can also be consulted in case of unavailability of 6th Edition.

Reference Books:

Narayanan, V. 2001. *Managing Technology and Innovation for Competitive Advantage*. Pearson Education Inc.

Bugelman, R. A., Christensen, C. M., and Wheelwright, S. C. 2009. *Strategic Management of Technology and Innovation*, McGraw Hill, 5th Edition.

Dorf & Byres. 2013. *Technology Ventures from Idea to Enterprise*. McGraw-Hill Companies Inc
 Markham. K. S, Mugge. C *Traversing the Valley of Death*

Cases and Readings will be distributed (uploaded on LMS) at least one week before each class.

Weekly Schedule:

Week	Lecture No. and Topic	Preparation Material	Session Outcomes
1	LECTURE 1: Introduction to the Course	CH 1 Shane (2009) CH 1 Schilling (2020) Article: Retail Technology Trends Reviving the Stores in 2022/2023 https://learn.g2.com/retail-technology-trends Video: Amazon Go (Walkout technologies)	CLO 1
2	LECTURE 2: Technological evolution and technology life cycle.	CH 2 Shane (2009) Article: Disruptive technologies: Catching the wave (HBR). Article: Is Tesla a Disruptor? (HBR) Video: Future disruptive technologies Case: SOOOUL: Navigating the Hype Cycle. Dan Wadhvani, Eugene Choi, David Kirsch, Tamara Dokic, HBR.	CLO 1
3	LECTURE 3: Technology adoption and diffusion	CH 3 Shane CH 3 Schilling Case: Apple Watch (B): Would you Bet on it? (HBS) Quiz 01	CLO 1 & CLO 2
4	LECTURE 4 Technological opportunities and sources of innovation Project Progress Discussion	CH 4 Shane CH 2 Schilling Article: New Year’s Resolutions for Tech in 2023 https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/new-years-resolutions-for-tech-in-2023	CLO1 & CLO2

		<p>Video: Innovating on a shoestring https://hbr.org/2009/06/innovating-on-a-shoestring Article: What's the Big Idea? (A) (HBS) Case: Luxola to Sephora Online: Opportunities in Beauty. Reddi Kotha, Lipika Bhattacharya. HBR</p>	
5	<p>LECTURE 5 Customer Need Analysis</p>	<p>CH 6 Shane (2009) CH 11 Schilling (2020) Article: Technology Push vs Demand Pull: What Drives Innovation? https://innovolgroup.com/misc/technology-push-vs-demand-pull-what-drives-innovation/</p>	CLO3
6	<p>LECTURE 6: Product Development</p> <p>Guest Lecture (40 Mints) Dr Ali Masood (CEO, AI/ML, Web 3.0 expert)</p>	<p>CH 7 Shane (2009) CH 11 Schilling (2020) Case: Micro Fridge: The Concept (HBS) Discussion and review session on the Project's Progress Quiz 02</p>	CLO3
7	<p>LECTURE 7: Protecting technological innovation</p>	<p>CH 8, 9 & 10 Shane Case: The Digital Music Distribution Revolution (CH 9 Schilling) Article: Intellectual Property: partnering for profit. https://www.cnet.com/tech/tech-industry/intellectual-property-partnering-for-profit/ Case: Time Warner Inc. and the ORC Patents (HBS).</p>	CLO3
8	<p>Project</p>	<p>Technological Innovation Strategy and Implementation (Mid Term Presentation)</p>	CLO3, CLO4 & CLO5
9	<u>MID-SEMESTER EXAM WEEK</u>		
10	<p>LECTURE 8: Competitive advantage in high-tech industries.</p>	<p>CH 11 Shane Case: IBM's "On Demand Business" Strategy (HBS) Article: Innovation 2.0: Experiment to improve, not to</p>	CLO3

		prove. (HBS)	
11	LECTURE 9: Technical Standards and Design Dominance	CH 12 Shane. Case Study: The Rise and Fall of BlackBerry (HBS) Article: Lessons from Tesla's approach to innovation (HBR)	CLO2 & CLO3
12	LECTURE 10: Digital Technology Strategy Project Progress Discussion	Article: What is a digital strategy, and how should it be structured? https://whatfix.com/blog/digital-strategy/ Case: L'oreal: The beauty of supply chain digitalisation (HBS)	CLO1 & CLO2
13	LECTURE 11: Formulating Technology Strategy	CH 14 Shane CH 8 Schilling Quiz 3	CLO4
14	LECTURE 12: Innovation Deployment Strategy	CH 13 Schilling Case: Transforming Geely: From Fridges To Motorcycles To EVs ... To?. Mark J. Greeven; Patrick Reinmoeller; Lisa Simone Duke; Wei Wei. HBR.	CLO4
15	LECTURE 13: Organisation Structure for Technology Strategy	CH 15 & 16 Shane CH 12 Schilling Article: How to kill creativity (HBR)	CLO4
16	Project	Technological Innovation Strategy and Implementation (Final Presentation)	CLO3, CLO4 & CLO5
17	BUFFER WEEK		
18	END SEMESTER EXAM WEEK		