



בית הספר למוסמכים במינהל עסקים ע"ש ליאון רקנאטי

## Technology Ventures - 1238.3604.01

Sofaer Global MBA 2020-2021

Module	Week Day	Dates	Time	Classroom	Lecturer	Email
2	Monday	Dec 14, 2020 – Feb 1, 2021	12:45-15:30	Yaglom Hall, Senate Building	Dr. David Zvilichovsky	davidz@tau.ac.il

**Teaching Assistant (TA):** Tzahi Madgar (tzahi.m@gmail.com)

**Office Hours:** By appointment

### Course Units

1 Yas

4 ECTS (European Credit Transfer and Accumulation System) = 1 course unit

### Course Description

## Technology Ventures

### Overview

This course covers select topics in Entrepreneurship and Innovation. The course introduces students to the concepts, challenges and tools associated with the creation and evaluation of New Technology Ventures and reflects on some of the drivers of innovation as well as the societal effects of NTVs. During the course we shall discuss entrepreneurs and entrepreneurship, sharpen our abilities to review venture opportunities and expand our understanding of the various stages and factors which impact the success of NTVs.

The course also incorporates an overview of the Israeli High-Tech Eco-system and will use examples from past and current high-tech companies, policy instruments and related cases that facilitate a deeper understanding of concepts in entrepreneurship and innovation.

The course also includes an overview of market structures and concepts which have a strong impact on a wide variety of current-day technology ventures; including: Networks and Network Externalities, Two Sided Markets, selling for Free and 'The Long Tail'.

Business model design methodologies are studied and implemented using current companies.

Teaching methodology incorporates lectures, case studies and active student participation.

As part of the course students are expected to apply the discussed frameworks and methodologies to an existing early stage technology venture. The course Assignments will be performed on portfolio companies of TheTime ([www.thetime.co.il](http://www.thetime.co.il)) a technology incubator with a focus on startups in the areas of Telecom, Internet, Media and Entertainment. This will allow participants to get a better feeling for the way theory becomes practice.

There is no exam. Class grade will be determined according to the course assignment, and participation. **Attendance is Mandatory.**

## Course Objectives

This course introduces students to the concepts, challenges and tools associated with the creation and evaluation of New Technology Ventures. During the course we shall discuss entrepreneurs and entrepreneurship, sharpen our abilities to review venture opportunities and expand our understanding of the various stages and factors which impact the success of NTVs.

The course also includes an overview of market structures and concepts which have a strong impact on a wide variety of current-day technology ventures; including: Networks and Network Externalities, Two Sided Markets, selling for Free and ‘The Long Tail’. This will facilitate a better understanding of economic and market structures that have a profound effect in today’s connected economy.

We shall review drivers of innovation and provide insights into the societal impact of innovation and its implications for government policy and venture financing. In the context of externalities we shall gain further understanding on how such externalities affect strategy, business model design, revenue model design competition, success and overall market welfare.

Business model design methodologies are studied and implemented using current companies. This will enhance one’s ability to build and review business models.

## Evaluation of Student and Composition

## of Grade

Percentage	Assignment		
10%	Attendance *		<b>Mandatory</b>
15%	Active Participation and thoughtful contribution to class discussion		
75%	Course Assignment		Assignment executed in teams of two. See example of this assignment specification attached. **  *** In preparing your class assignment, please use the final assignment spec that will be posted to Moodle and discussed in class.

\* Attendance is mandatory.

## Course Assignments

See Syllabus Appendix and Course Moodle site

## Grading Policy

As of the 2008/9 academic year the Faculty has implemented a grading policy for all graduate level courses. This policy applies to all graduate courses in the Faculty, and will be reflected in the final course grade. Accordingly, the final average of the class for this course (which is an elective course) will fall between 83-87.

Additional information regarding this policy can be found on the Faculty website.

<https://coller.tau.ac.il/MBA-students/programs/2019-20/MBA/regulations/exams>

## Evaluation of the Course by Student

Following completion of the course, students will participate in a teaching survey which is designed to facilitate feedback regarding the course and the instructor.

## Course Site (Moodle)

The course site will be used to communicate messages and material to students.

You should check the course site regularly for information on classes and assignments.

Course material will be available on the course site.

Please note that topics that are not covered in the course material but are discussed in class are considered integral to the course.

## Course Outline\*

<b>Course Topics and Plan</b> Order and time allocation may change (Item 10 is subject to time availability) *	<b>Recommended Reading</b> (Details in Course References)	<b>Additional Reading</b>	<b>Class Date</b>
<b>1. Course Introduction</b> <b>2. The Israeli High Tech Eco System in perspective</b> <b>3. Innovation externalities and R&amp;D policy</b>	R1,R4,R5		Dec. 14
<b>4. Entrepreneurs and Entrepreneurship</b>	P1, B1: ch 1	B6: p11-24	Dec. 28
<b>5. Frameworks for evaluating NTV opportunities.</b>	B1: ch 2 & 4	B5	Jan. 4
<b>6. Designing &amp; Evaluating Business Models</b>	B2, B3		Jan. 11
<b>7. Factors affecting the success of early stage technology ventures.</b> <b>a) Industry Data</b> <b>b) Academic Research</b>	R2 P3,P4,P5	R3, R5 P2	Jan. 18
<b>8. Networks, Externalities and Two Side Markets</b>	B7	P6, P11	Jan. 26
<b>9. Economic forces in today's interconnected world:</b> <b>a) Free</b> <b>b) Long Tail</b>	B8, P8 B9 , P7	P9	Feb. 1
<b>10. (Time permitting) Sources and modes of Financing NTVs (Including Crowdfunding)</b>	B1: ch 18	P10, P11, P12	

\*Subject to change

## Required Reading / Perpetration for classes

Please go over R1 prior to first class.

Papers P3 and P4 should be read prior to class item 7, exact date will be announced during the course.

Specific additional reading preparations will be announced in advance during class.

## Reading References

### Course References

The course shall cover select topics and data from the following publications:

#### Books:

- B1. **(TB)** Thomas Byers, Richard Dorf & Andrew Nelson, Technology Ventures from Idea to Enterprise, McGraw-Hill,
- B2. **(BP)** Alexander Osterwalder & Yves Pigneur, Business Model Generation, WILEY
- B3. **(4S)** Steven Gary Blank, The Four Steps to the Epiphany, successful Strategies for Products that Win
- B4. <>
- B5. **(GC)** Greg Clydesdale, Entrepreneurial Opportunity, The right Place at the right Time, Routledge
- B6. **(HB)** Ayala Malach-Pines & Mustafa F. Ozbilgin - Editors, Handbook of Research on High Technology Entrepreneurs, Edward Elgar Publishing
- B7. Carl Shapiro & Hal R. Varian, Information Rules: A Strategic Guide to the Network Economy, Harvard Business School Press
- B8. **(CA1)** Chris Anderson, Free: The Future of a Radical Price, Hyperion
- B9. **(CA2)** Chris Anderson, The Long Tail: Why the Future of Business is Selling Less of More, Hyperion

#### Reports:

- R1. **(UN)** Unesco Country R&D report  
<http://uis.unesco.org/apps/visualisations/research-and-development-spending/>
- R2. **(SG)** The Startup Genome and ecosystem reports:
- R3. **(UC)** The Unicorn Club Report : Learning from Billion Dollar Startups
- R4. **(IVC1)** IVC-ZAG HT Survey
- R5. **(IVC2)** IVC - Meitar High-Tech Exits Report

#### Papers:

(Note that the list of papers is expected to be further updated during the course)

- P1. **(CP)** Perez, Carlota. "Technological revolutions and techno-economic paradigms." Cambridge journal of economics 34.1 (2010): 185-202.
- P2. **(DS)** Delmar F. & Shane S., Does experience matter? The effect of founding team experience on the survival and sales of newly founded ventures, *Strategic Organization*, 2006 vol 4/3:215-247
- P3. **(GO)** Gompers, P., Lerner J., Scharfstein D. and Kovner A. (2010). "Performance Persistence in Entrepreneurship and Venture Capital.", *Journal of Financial Economics*, 98(1),18-32
- P4. **(EA)** Eesley, Charles E., David H. Hsu, and Edward B. Roberts. "The contingent effects of top management teams on venture performance: Aligning founding team

- composition with innovation strategy and commercialization environment." Strategic Management Journal 35.12 (2014): 1798-1817.
- P5. **(MS)** Michael Song , Ksenia Podoyntsyan, Hans Van der Bij & Johannes Halman, Success Factors in New Ventures: A Meta-analysis , Product Innovation Management 2008;25: pp 7-27
- P6. **(RS)** Raji Srinivasan, Gary L. Lilien, & Arvind Rangaswamy, First in, First out? The Effects of Network Externalities on Pioneer Survival, Journal of Marketing, 2004, pp 41-58
- P7. **(EB)** Erik Brynjolfsson, Yu (Jeffrey) Hu, Michael D. Smith , The Longer Tail: The Changing Shape of Amazon's Sales Distribution Curve , 2010
- P8. **(KS)** Kristina Shampanier, Nian Mazar, Dan Ariely, Zero as a Special Price: The True Value of Free Products, Marketing Science, 2007, pp 742-757
- P9. **(MP)** Martin Peitz, Patrick Waelbroeck, Why the music industry may gain from free downloading -The role of sampling, International Journal of Industrial Organization, 2006, pp 907–913
- P10. **(EM)** Ethan Mollick, The dynamics of crowdfunding: An exploratory study, Journal of Business Venturing, 2014, pp 1-16
- P11. **(DZ)** David Zvilichovsky, Yael Inbar & Ohad Barzilay: Playing on Both Sides of the Market: Evidence from a crowdfunding platform , 2016
- P12. **(DZ2)** David Zvilichovsky, Shai Danziger & Yael Steinhart: Making the Product Happen, a Driver of Crowdfunding Participation, Journal of Interactive Marketing, 2018

## **Technology Ventures - Assignment Specification (example)**

- Students can execute this assignment as an individual assignment or team up in groups of two; each group shall select one of the portfolio startups of thetime – a technology incubator. ([www.thetime.co.il](http://www.thetime.co.il)). Maximum two students or teams per company on a first-come-first-serve basis.
- Send your selection to Tzahi Madgar < [tzahi.m@gmail.com](mailto:tzahi.m@gmail.com) >
- **Submission Format:**
  - Word File,
    - File name format: <Company\_Name>\_<Student1\_Last\_Name><Student2\_Last\_Name >
    - 11 or 12 point font, 1.5 line space, not longer than 22 pages.
  - Submit digitally via Moodle.
  - Only one submission file per team

## **Assignment Description**

### **Part I**

Create a report which reviews the business of the selected startup and the context in which it operates. **This report should be based on available public information.**

The report should include at least the following elements:

- The Business Concept Summary
- The Competitive Landscape & Context
- A Description of the company and its Business Model, utilizing the 9 building blocks discussed in class.
- SWOT style analysis .

The *Business Concept Summary* should be concise, **not longer than one page** (may be shorter). Make sure it covers a synopsis of the company's business. Summary should cover the following elements (as applicable to your company): Market / Problem / Need, Customer, Solution / Product, Uniqueness / Value, Revenue source / How the company expects to make money.

In the *Competition and Landscape* section, make sure you describe and compare to major competitors. Identify the **specific market/environment attributes** which pertain to this company.

In the business model and competition sections you should make sure you relate to customer pain, customer identification & segments, solution fit, product /services pricing, sales channels, differentiation etc.

Where applicable, when describing the company use the terminology we used in class, identify the relevant forces and concepts which relate to this company (type of market, network forces, externalities, long tail etc....)

Please note that you are **NOT** expected to include or describe corporate financial information such as aggregate sales projections, revenue etc; however, the report should include reference to the sales model and pricing when available.

## **Part II – Additional Analysis & Opinion:**

- *Do you think the startup has identified an interesting problem/opportunity? Elaborate! (relate to concepts used in class)*
- *Describe the Company founders / Executives and their fit with the venture? If you were an investor would you invest in this Team? Why?*
- *What in your mind is the most critical factor that affects [or will affect] this company's success.*
- *Do you think they will succeed? Why?*

Make sure you justify your statements, provide references if applicable.

## **Part III – Societal & Economic Impact**

The successful implementation of new products and processes may often have a significant effect on industry players and society at large. In many cases the existence and wide spread adoption of a new technologies and processes affects efficiency, consumption patterns, resource allocation and behavior of a broad constituency. This effect can be direct or indirect.



Assume that the company you are evaluating succeeds in implementing its products/services and reaches a **significant markets share**.

- Identify entities (in addition to direct customers) that may be affected by the successful implementation of this company's goals and products.
- For each of these entities describe the potential effects (note these may be positive or negative).
- How can the success of this company impact economic welfare?
- Can you think of proposing changes to the company's business model, where the company may be able to appropriate profits from some of the wider societal effects that described above?

#### **Part 4 – Comparing competing Business Models**

Select **one** of the competitors for this company. Choose a competitor which has a business model that is at least partially different from your selected company. If the company does not have a direct competitor, or if all competitors share the same business model select a company in the same space which is offering similar products or service but has a different business model. You may also select the incumbent in the industry for comparison.

- Describe the competitor.
- Concisely describe the competitor's business model using the business Canvas.
- Compare between your selected company and the competitor. Make sure you **identify and detail the key differences between the business models** of these two companies and the different challenges and success drivers as applicable.
- *In your opinion, which Business model has a better chance of success in the current market conditions? Why?* (If you think that these models can-not be ranked, for example if in your opinion they both have the same potential, describe which market condition would favor one or the other).

#### **Part 5 – Improving Your Company's Business Model**

This section pertains to the original company your group has selected.

Propose improvements and/or alternative to Business Model for this venture.

- Describe your proposed changes and compare these two business models.  
(Note that a change in one block of the Business plan may impact other Business Model elements).

**Highlight your thoughts about the differences between the models and their relative advantages and disadvantages?**

*If you were the executives of this company which of the two models would you choose? (The current one implemented by the company or the new one outlined in this section) Why?*

Make sure you justify your statements, provide references if applicable