Technology Ventures: Integrating Case Examples into Learning

This textbook provides the reader and the instructor with seven cases in Appendix B to bring to life and encourage discussion of key concepts of entrepreneurship in high tech. Entrepreneurial principles and skills are learnt through real world experiences – case studies give students this opportunity to put themselves in the shoes of those facing immediate challenges in their ventures.

This document provides the instructor with a synopsis, relevant chapters, and in-depth study questions for each case. Below is a short, compressed index, followed by more detailed information on each case.

A. Danger Inc.

Synopsis

Danger, Inc. describes a startup in Silicon Valley that must analyze and decide on the best companies for its portfolio of manufacturing and carrier partners. With a complete solution that enables wireless carriers to offer innovative and affordable voice and data products to their customers over next-generation networks, Danger Inc. was a hot Silicon Valley startup. The founding team had successfully implemented a first-generation integrated solution, won numerous awards from the industry for their innovation, received enthusiastic consumer reviews for their handheld product, and had signed on their first major customer, T-Mobile. At this point, Danger needed to build a portfolio of strategic relationships that would help bring its technology to mainstream markets.

There are three key issues in this case:

- Which wireless carriers were the leading candidates to create wireless data services based on the Danger platform for their customers around the world?
- Which companies were the most attractive potential partners to design and manufacture Danger-compatible handheld devices?
- How could Danger develop trust and collaboration with prospective partners who were often in fierce competition with one another?

*This synopsis is adopted from Danger Inc. Teaching Notes. Professor Tom Kosnik. Stanford University.

When should this case be discussed?

Danger Inc. is a great case study to encourage discussion on 'ecosystem' building. As startups grow into sustainable companies, they must form and maintain a complex portfolio alliances and partnerships.

Teaching notes: Complete teaching notes available (Kosnik).

Relevant chapters and questions

Ch 13: Acquiring, Organizing and Managing Resources
Ch 15: The Management of Operations
Ch 19: Presenting the Plan and Negotiating the Deal

- What can Danger offer its potential allies (carriers and manufacturers) in terms of pushes and pulls to partner? What would potential allies want in return?
- How can James Isaacs position Danger in discussion with potential partners in wireless services and handheld devices so they will perceive Danger as a "value – add" but non-threatening partner?
- What are the risks to Danger of having T-Mobile as a strategic partner in the long run? How can you manage those risks?
- What steps can you take to prevent the addition of a second US carrier alliance from ruining the relationship Danger has with T-Mobile?
- Formulate a game plan for building Danger's portfolio of partnerships.

B. Biodiesel Inc.

Synopsis

Biodiesel Inc. is a mini-case study that involves three UC Davis students exploring an opportunity in biodiesel, an renewable organic product that can replace or complement original diesel fuel. The students come up with a business model starting with local producer's cooperatives.

When should this case be discussed?

Biodiesel is an good first case to use for introducing the case study method after covering Section I in the textbook.

Relevant chapters and questions

Ch 2: Opportunity and the Business Summary
Ch 3: Building a Competitive Advantage
Ch 4: Creating a Strategy
Ch 5: Technology, Innovation, Timing (5.2)

- What are the key factors in determining if this is a viable business opportunity? Is this just an idea or a real business opportunity?
- What contextual (economic, regulatory, industry) factors should Biodiesel Inc. be aware of? What markets and market drivers should they focus on?
- What are the flaws in the current business strategy? Flesh out their current business strategy. What partners and alliances do they need in order to be successful in production, distribution, marketing, and overall?

C. Yahoo! 1995: First Round Financing

Synopsis

This case examines the challenges that Yahoo! founders Jerry Yang and David Filo faced in analysing and choosing a first-round financing option. With the possibility of either selling Yahoo! outright, partnering with a corporate sponsor or starting an independent business, Jerry and Dave have to consider not only the established culture and needs of their novel fledging webportal, but their own personal entrepreneurial goals and vision for Yahoo!. The pressure is also on them to make a critical decision, as Mike Moritz of Sequoia Capital offers them deal with a 24 hour deadline.

This case also includes excerpts from the original Yahoo! business plan.

When should this case be discussed?

Yahoo! is a good first or second case to tackle in an introductory class in technology ventures. A student should be able to make good headway on the case after reading the first four chapters. The case can also be revisited after a more in depth examination of business plans and funding sources.

Teaching notes: Complete teaching notes (Kosnik), sample case prompt, sample response and sample critique of response available.

Relevant chapters and questions

Ch 1: Capitalism and Technology Entrepreneur (1.1,1.2)
Ch 2: Opportunity and the Business Summary
Ch 3: Building a Competitive Advantage
Ch 4: Creating a Strategy

- What makes Yahoo! a true business opportunity and not just an idea? How do Dave and Jerry's personal goals and vision for Yahoo! align with each of their financing options? What is the vision and the value of Yahoo!? What is its business model and strategy?

Ch 8: Creating New Ventures and the Business Plan

- Analyze the Yahoo! business plan using Sahlman's model as presented in Figure 8.7 (p. 191). Identify the major risks in each of these categories: deal, resources, people, opportunity.

Ch 7: Corporate Technology Ventures
Ch 18: Sources of Capital

- What are the advantages and disadvantages of each of the funding options Yahoo! could pursue?

D. Global Wireless Ventures

Synopsis

Global Wireless Ventures examines the issue of entrepreneurial context. Entrepreneurs must judiciously choose the best enviroment for a home base to support their new venture, weighing not only the location's unique assets, liabilities and risks, but also their own personal needs. This case also provides a good overview of the global wireless industry and industrial clusters that support its growth.

When should this case be discussed?

Global Wireless Ventures is a good case study to discuss before delving into Danger Inc., a longer case on the wireless industry that is provided in the appendices. The importance of understanding context and circles of influence should be stressed early on in a course on technology ventures.

Teaching notes: Complete teaching notes (Kosnik), sample case prompt, sample response and sample critique of response available.

Relevant chapters and questions

Ch 8: Creating New Ventures (8.5 Cluster Dynamics)
Ch 11: The Marketing and Sales Plan
Ch 13: Acquiring, Organizing, and Managing Resources

- What is GWV's target customer and target market?
- What factors should GWV consider in comparing the entrepreneurial context in Singapore, Sweden and Silicon Valley?
- Research Kista, Sweden and Singapore. Based on this research, what are the assets, liabilities and risks in the context of each region?
- What assets (besides smart money) do you think are most critical for a start-up like Global Wireless Ventures? What institutions are likely to help you access those assets in each region?
- Which region has the best context for GVW? Why?

E. John Hirschtick's New Venture: Solidworks

Synopsis

Jon Hirschtick was ready for another entrepreneurial project and decided to leave his steady job to start Solidworks, a company aimed at developing powerful CAD (computer aided drafting) tools for lower end computing systems – which was then a wide open market. This case follows Jon through the steps he took to recruit a solid technical team through to his initial attempts at and offers of securing funding. For this initial funding round, Jon must decide whether Solidworks needs all the money upfront in a single round of capital or if the company should take the money in stages in order to obtain more favorable terms from the investors.

When should this case be discussed?

The meat of this case is in analyzing a single stage vs. multi-stage financing deal and hence is most appropriate after the student has been exposed to the first half of Section IV, which covers the financial aspects of technology ventures.

Teaching notes: Sample case prompt, sample response and sample critique of response available. Also, see Stanford's E145 class website for a more in-depth valuation analysis (single and multi-staged).

Relevant chapters and questions

Ch 12: The New Enterprise Organization
Ch 13: Acquiring, Organizing, and Managing Resources

- Evaluate Jon's team. What made Jon so successful at recruiting key players to Solidworks? What functional members of the team does he still need, within and outside of Solidworks? What are the potential advantages and disadvantages of having Michael Payne from PTC join the team?

Ch 18: Sources of Capital

- Why has this deal attracted venture capital? Think about the team and the opportunity.
- Can the founders optimize their personal financial returns and simultaneously ensure that SolidWorks has sufficient capital to optimize its chance of succeeding? What factors should the founders consider?
- How can the syndicate optimize its potential return? What factors should it consider?
- Structure a deal that will serve the best interests of the founders, the company and the venture capital firms.

F. Artemis Images

Synopsis

Artemis Images is based on entrepreneur Christine Nazarenus's vision of building a dynamic company for digitizing photo and video archives. With a seemingly solid team and content management expertise, Chris falls upon a perfect opportunity with the Indianapolis Motor Speedway Corporation (IMSC) archive to jumpstart her own business. She and her partners propose a long-term revenue-sharing business model, which differs from the traditional model of selling media management systems. Artemis also proposes to differentiate itself from its competitors with not only better content, but also better search functionality through its collection as well as merchandising options and community chatrooms. With a solid marketing and sales strategy and a promising market, where did Artemis make a wrong turn?

When should this case be discussed?

Artemis Images is an excellent case study to discuss after reading Section IV as it covers the business model in terms of the profit and financial plans, sources of capital and finally issues of executing a business plan. It is also a good example of a technology venture that failed to meet a number of its goals.

Relevant chapters and questions

Ch 10: Legal Formation and Intellectual Property

- What are the main differences between an S-corporation and a C-corporation? Why did Artemis reorganize as a C-corporation?

Ch 16: The Profit and Harvest Plan
Ch 17: The Financial Plan
Ch 18: Sources of Capital

- How is Artemis going to make money? What are Artemis's main assets? What are the risks involved in the revenue-sharing model?

- How is Artemis being funded? What are the advantages and disadvantages of each source of funding? Examine the projected financial statements for Artemis. Is this a good deal for investors? As an investor, what would you be wary of?

- (Remember, that in the end, the best funding is not debt or equity funding, but profit – Heidi Roizen video)

Ch 20: Leading a Technology Venture to Success

- Artemis seemed to have a sound business model and strategy on paper. What went wrong in the execution? What considerations did the team overlook – in themselves and in their vision?

- What should Artemis do next?

G. RADCO Electronics

Synopsis

This case is centered around the 'growing pains' that a rapidly growing company faces. RADCO Electronics grew out of the successful commercialization of a simple method for probing agricultural fields with inexpensive chemical sensors. Expanding to different industries, the rapidly expanding company is challenged with organizational, political and strategical issues. The company is outgrowing its centralized management and organizational hierarchy and is considering the restructuring of its upper management and budgeting procedures. Questions arise in how customers are billed and which departments are actually bringing in revenue.

When should this case be discussed?

RADCO Electronics is a good case study to jumpstart discussion on organizational dynamics as well as strategy challenges that a startup faces as it grows up. This case will enrich concepts learned in Sections II and III of the text.

Relevant chapters and questions

Ch 10: Legal Formation and Intellectual Property

- What are the intellectual property issues that RADCO Electronics faces? What are the advantages and disadvantages of keeping their software algorithms a trade secret rather than patenting the idea? Given that they do not have the patent to the sensors, how can they better approach the sensors issues?

Ch 12: The New Enterprise Organization

- What are the major flaws in the current organizational design and what are the effects on RADCO? What can be done to improve the organizational and management structure? What should be done about Poulos and Sells, if anything?

Ch 11: The Marketing and Sales Plan (11.9)

- Given that Moore's 'Crossing the Chasm' model suggests that a company should 'put all its eggs in one basket' and secure a vertical before branching out to other industries, can you gage how well RADCO is doing?

- Analyze Exhibit 3. Do you agree with ExCom's centralized budget or Braun's decentralized budget? What are the advantages and disadvantages of each? Consider the effects beyond the financial context.