Top 10 Elements of Technology Entrepreneurship for High-Growth Innovation
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1. **What is technology entrepreneurship? What is the difference between an idea and a business opportunity?** Technology entrepreneurship is a style of business leadership based on the process of identifying high-potential, technology-intensive business opportunities, gathering resources such as talent and cash, and managing rapid growth using principled, real-time decision-making skills. An attractive business opportunity consists of a great value proposition, technically feasible products, strong intellectual property, a sustainable competitive advantage, a large potential market, and a scaleable business model. It can be based on either a revolutionary breakthrough in technology or an evolutionary advancement; and it can target an existing market or create an entirely new one. This entrepreneurial process is relevant for both independent startups and within established corporations. Disruptive technologies are particularly interesting as originally examined in Christensen's *Innovator's Dilemma*. See *Technology Ventures: From Ideas to Enterprise* by Byers, Dorf, and Nelson as a textbook.

2. **Why do ventures require dynamic leaders who understand vision, strategy, risk, and tactics?** Entrepreneurship is a process that involves identifying and reducing four major types of risks over time: people, technology, market, and financial. This is accomplished by the right combination of vision informing strategy and execution. Although a compelling vision (e.g., core values and mission) and a set of strategies (e.g., product and market) are important, it is often execution that differentiates great companies from good ones as they search for a sustainable business model. An A+ team and adaptable leadership can guide a venture through its challenging journey of growth and adversity where everyone works diligently on clear goals. *Built to Last, Good to Great, and Great by Choice* by Collins are excellent references as well as *Competing on the Edge: Strategy as Structured Chaos* by Eisenhardt.

3. **How does context (e.g., economic and political climate) play a role in technology entrepreneurship?** All kinds of external forces impact entrepreneurship and reinforce the need to understand the entrepreneurial process. For instance, economic cycles can fluctuate dramatically, fostering periods of extreme optimism as well as those of deep concern and fear. And in some industries, political and government influences are the primary market drivers (e.g., biotechnology). A venture's location also plays a role, as attitudes toward entrepreneurship are different everywhere. Places like Silicon Valley, for example, offer infrastructure, networks, and talent in an environment that accepts failure in the pursuit of innovation. Friedman's *Hot, Flat, and Crowded* is a good reference.

4. **What is market positioning? Why are partnership strategies important?** Positioning forces a high-growth entrepreneur to clarify what the product or service is, who are the customers, what benefit it delivers, and how it differs from the competition. Successful positioning requires understanding the technology adoption life cycle made famous in *Crossing the Chasm* by Moore and the nurturing of true value-added partnerships. Great entrepreneurs use every asset (e.g., vision and intellectual property) to create mutually beneficial social networks. Another recommended reference for the importance of managing customer and partner relationships during R&D is *Startup Owners Manual* by Steve Blank.

5. **What is the purpose of the business plan and model?** A business plan and model details a venture's compelling value for a growing market of customers and outlines its mission and purpose. It also introduces the venture's team, its technological solution, and its economic model. It is necessary for both external (e.g., raising venture capital, gaining customers, and creating partnerships) and internal (e.g., tracking against objectives and milestones) uses. It provides a compass for negotiating the unforeseeable challenges ahead, rather than a definitive roadmap to success. Great references are Sahlman's *How to Write a Great Business Plan, Business Model Generation* by Osterwalder, and *Getting to Plan B* by Mullins and Komisar.

6. **Why is cash flow so vital?** High-tech entrepreneurship is a journey of incremental and rapid growth. Cash is a critical resource for reaching each funding milestone, which is defined by the reduction of some particular set of risks. Great startups always spend their cash wisely on the current "white hot risk". It gives stability and strategic flexibility to a venture as opportunities and problems arise. Cash facilitates the recruitment of an A+ team and the frugal ramp-up of operations. It is the one resource that cannot be allowed to go "negative," even for a short period of time. For startups, financing events are strategic and require substantial discipline, effort, and foresight. See Eric Ries's "Lean Startups" blog.

7. **What are the different sources of capital for technology ventures? What are the essentials of the venture finance process from both the investor and founder's perspectives?** Sources available include traditional venture capital, angel investors, corporations, incubators, bank loans, personal funds, and even bootstrapping when necessary. Entrepreneurs should choose a source of funding that best fits their needs at each particular stage of the venture (e.g., startup versus expansion). Not all money has the same intrinsic value. For example, professionally managed venture capital contributes both strategic counseling and a network of contacts in addition to cash. Another key point is that valuation and subsequent dilution are not the only important issues. Understanding the venture finance process requires fully appreciating such concepts as multi-stage financing, valuation criteria, risk reduction, employee stock pools, deal structure and terms, corporate governance and control, and the role of liquidity events for stakeholders such as IPOs and M&A transactions. The IPO is foremost a financing event (albeit one with special characteristics) and certainly not the final destination for a startup. Great references are Berkery's *Raising Venture Capital for the Serious Entrepreneur* and Bagley and Dauchy's *The Entrepreneurs Guide to Business Law.*

8. **Why is technology entrepreneurship a team sport? How can reward systems and company culture inspire innovation?** Successful innovation is a function of both creativity and teamwork. Developing an outstanding team requires setting a coherent and compelling vision, hiring and retaining people better than oneself, using proper recognition and compensation strategies (e.g., cash, stock options, and other rewards), enabling proper autonomy and delegation, and creating a culture where success is recognized and failure is allowed. Sound leadership is essential including experienced advisors and board members. Suggested references are *Weird Ideas that Work* and *Good Boss Bad Boss* by Robert Sutton.

9. **Why are appropriate sales and business development skills so valuable**? The ability to gain the support of many different types of stakeholders (e.g., revenue and endorsements from real customers) is important for building momentum. Basic negotiation, influence and persuasion skills are critical. Successful entrepreneurs build lasting personal relationships based upon trust. Cialdini's *Influence* and Goleman's *Primal Leadership* are excellent references.

10. **What is the role of ethics in technology entrepreneurship and why is failing OK?** Entrepreneurship is not all about personal financial gain. It concerns crafting a lifelong plan to make a positive impact on society. Character does matter. Failure is OK; unethical behavior is not. True wealth requires the creation of enduring value, which requires integrity and ethics. Entrepreneurship and business are not just contact sports subject to their own arcane rules, but an integral part of life that reflect the values of each participant. A culture of dependability and professional trust starts with the founding team's initial behaviors. A good read is both Komisar's *Monk and the Riddle* and McLean and McLean's *Smartest Guys in the World*.