

Bootstrapping a Company

- Our usage of the term *bootstrap* originates in the phrase: “to pull oneself up by one’s own bootstraps”
- A bootstrap is more than a company with low capitalization
 - Most components of the business require a different approach than for a VC-funded startup
 - Each component must mesh effectively with the others
- Not every company can be bootstrapped



Bootstrap: Lessons Learned...
by Kenneth L. Hess

The Focus of this Talk

1. Bootstrap advantages
2. Product development
3. Cash management & finance
4. Leaving bootstrap mode
5. Leadership
6. Personal issues, characteristics



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Section 1: Bootstrap Advantages



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Bootstrap Advantages – I

COMPARISON OF FUNDING SOURCES—SCENARIO 1

Type of Funding	Founder's Equity	Em- ployees' Equity	Investor's Equity	Company Sales	Market Value	Founder's Net Worth
Bootstrap	85%	15%	0%	\$10 million	\$20 million	\$17 million
Venture capital	15%	15%	70%	\$10 million	\$20 million	\$3 million

However, it's unlikely a VC would invest in anything this small.



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Bootstrap Advantages – II

COMPARISON OF FUNDING SOURCES—SCENARIO 2

Type of Funding	Founder's Equity	Em- ployees' Equity	Investor's Equity	Company Sales	Market Value	Founder's Net Worth
Bootstrap	85%	15%	0%	\$10 million	\$20 million	\$17 million
Venture capital	15%	15%	70%	\$50 million	\$100 million	\$15 million

Attractive size to a VC, but fewer opportunities and longer odds of success.



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Bootstrap Advantages – III

- It takes an unbelievable amount of time to raise money
- Outside investors:
 - Have different objectives than founders (portfolio *vs* sweat equity)
 - Want control and require constant care & feeding
 - Hinder a try-it, fix-it approach
 - Want their money back!
- Limited funding fosters discipline, creativity, and skill development



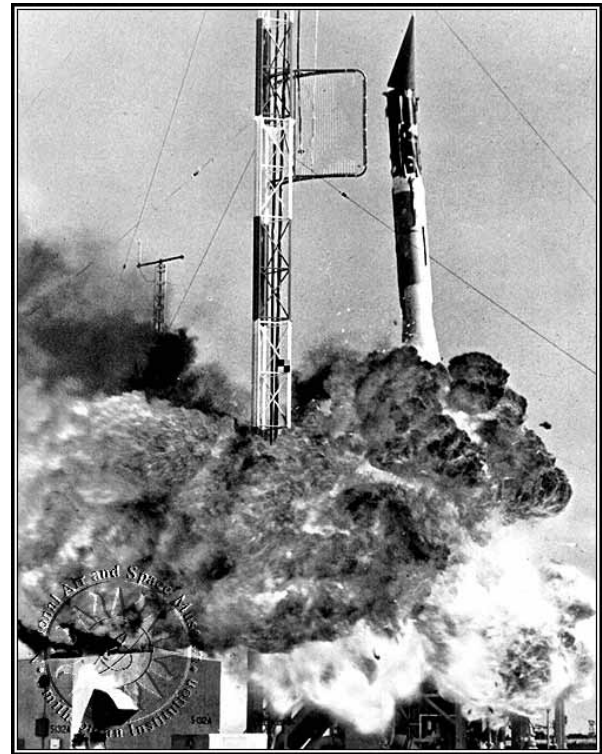
The Value of “Hanging Around”

- Being in the marketplace offers tremendous advantages over someone just studying it or working to enter it
 - Direct customer feedback
 - Firsthand knowledge of channels
 - Debugs the company as well as the product
- With a low burn rate, a bootstrap can “hang around”
 - When the market offers an opportunity, you can be the first to know



The Opposite of Hanging Around

- If you fail, you fail in a spectacular fashion!



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Section 2: Product Development



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Some Perspective



This is your startup



Bootstrap: Lessons Learned...
by Kenneth L. Hess

If You Are on the Table, You Want:

- Experts doing the work—Someone to get the odds in your favor
- Singular focus by all concerned
- A commitment to finish the job
- An incredible sense of urgency



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Product Strategies

- In a bootstrap, the product must sell itself:
 - High-value products or services that can sustain direct personal selling (i.e., the co. founder is the product), OR
 - A solution to a task people perform in spite of the difficulty, providing 10X improvement, OR
 - . . .
- Our focus today, the “10X” productivity improvement products



Life Cycle Steps Key for Bootstrap

- Product Development Life Cycle = a series of documents that define the product & the work to be done
- Sounds “big company,” but planning is part of good discipline, AND
- Good product specification documents enable junior employees to successfully complete tasks
- Product idea itself must meet strict criteria



Representative Product Criteria – I

1. The product solves a differentiable, known problem—a task people perform in spite of the difficulty—providing an order-of-magnitude improvement.
2. Management offers special expertise.
3. The product has no significant existing competition and barriers to new competition.



Representative Product Criteria – II

4. It makes good use of the computer, Web, or whatever. Catching a technology wave is good.
5. It meets profit objectives. Typically this means that the product requires a very short development time, and that it has reasonable support costs.
6. Company has control over all key technologies and relationships.



Key Life Cycle Steps – I

- Product Requirements Document (PRD)
 - Product objectives, description
 - Description of market opportunity & competition
 - Minimum product capabilities, feature by feature
 - Hardware requirements
 - Performance requirements
 - Optional requirements specifying whether each is important, highly desirable, or desirable



Key Life Cycle Steps – II

- External Product Specification (EPS)
- This specification describes the operation of the product from the user's viewpoint, containing:
 - Drawings of each screen as it would appear to the user
 - A mapping of the behavior of every input such as a keystroke or mouse action
 - Incorrect, out-of-range, and potential error conditions and the program's response



Key Life Cycle Steps – III

- Internal Product Specification (IPS)
- This document describes the programming necessary to meet the specifications of the Product Requirements Document and the External Product Specification. It contains:
 - A description of the data structure and key variables
 - The overall product architecture
 - Functions with their arguments and return values
 - Important algorithms



Key Life Cycle Steps – IV

- Test plan



Important Development Lessons

- The product architecture deserves top management attention — it controls your future
- Limit the initial product to essential features
- Follow a *resourceful and on time* strategy
 - Subordinate the design to available components
 - Subordinate the feature set to the schedule
- Don't rely on opinion when facts are cheap
 - Use prototypes, mock-ups, and test beds
 - Perform Web surveys and traffic analysis



Building a Development Team

- The team should be as small as possible
 - It's not just money
 - It's speed (*The Mythical Man-Month*, Fred Brooks)
- Irrespective of written specs, at least one individual needs to be capable of holding the entire design in their head
- Hopefully the founders can code, because you can't afford anyone else!



Early Sales & Marketing

- Generally, stay under the radar until product ship
- A direct sales channel is strongly preferred:
 - You control the message
 - You immediately capture customer feedback (and can change message quickly if necessary)
 - Distributors inherently want to screw the little guy
 - Fewer steps: simpler is better & cheaper
- In the beginning, you may not have sales leverage, but you can establish sales options



Collecting Feedback

- Nothing is more important
- Direct marketing offers many avenues of experimentation for honing a message or selecting a price
- Customer feedback is far more valuable than that of friends & colleagues
- However, customers can't extrapolate very far
- Ultimately, you want to broaden your market (*Crossing the Chasm*, Geoff Moore)



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Section 3: Cash management & finance



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Preliminaries

- The easy, but important stuff:
 - Don't quit your day job
 - Don't rent an office
 - Apply for personal credit line before you quit job
- Play on being small, "We don't have a budget for that..."
- Measure everything so you don't repeat mistakes



Just Say No

- Others want to spend YOUR money because of what it does for THEM.
- "Just say NO" to things that don't make sense for YOU — and Be Happy!



Hiring: The Bootstrap's Paradox

- For technology companies, salaries are a big expense
- Junior, inexperienced employees:
 - Relatively inexpensive
 - Receptive to a good company culture
 - But, require training
- Senior, experienced employees:
 - Know how to do the job
 - But, they're expensive
 - Have more demands on their time outside the office
 - Less receptive to a new corporate culture



Hiring: The Sweet Spot

- There is a “sweet spot” on the experience curve
 - A little experience, but not too much
 - The exact point will depend on the situation
- Advantages:
 - Moderate expense
 - Manageable training demands
 - Junior employees like the growth opportunities



Hiring: Moving the Sweet Spot

- Reduce the need for training
 - Good product life cycle
 - Hire bright, self-learners (use tests, including personality surveys)
- When size permits, establish an “entry department”
 - One manager that focuses on training & acculturation
 - Employees move on to other positions



Hiring: Controls

- Don't hire just because people are working "too hard" or because there are uncompleted tasks
- Don't hire based on speculative growth
- Set a metric, for example, "X" \$ (£) in sales per employee
 - Exact number depends your particulars
- Hire ONLY after sales level achieved, period.
- Hire ONLY after sales level achieved, period.
- Hire ONLY after sales level achieved, period.



“Deals”

- Most deals represent a wild goose chase. Learn to screen them out early.
- Special or custom product deals are a great way to lose focus. Use caution.
- For my company, the best deals were strategic, but maintained our ability to create and control the project.



Section 4: Leaving bootstrap mode



Bootstrap: Lessons Learned...
by Kenneth L. Hess

When Product Has Sustainability

- The company founder must delegate some tasks to free up time for new and important ones
- Hiring: Cautiously increase the employee experience level, but only as required
- Product development:
 - Re-evaluate the competitive environment
 - Look to broaden the market by addressing customers who do not buy your product
 - Re-focus product objectives as appropriate



Section 5: Leadership



Bootstrap: Lessons Learned...
by **Kenneth L. Hess**

Force of Will

- Assumption: You've set *realistic* objectives for *necessary* tasks
 - Then, of course, occasional & inevitable problems arise:
 - Company objective conflicts with personal one
 - The unforeseen requires *extraordinary* effort
 - You see a problem coming and can't afford to let someone "learn from his/her mistakes"
 - It's your responsibility to impose your will
 - Explain what's necessary & why (external enemy good)
 - Make it happen . . . no matter what
 - You need to be right more often than not!
-



An Importance Balance

- The *entrepreneur* must charge ahead regardless of problems encountered
 - Ceaselessly generate alternative approaches in response to each problem
 - Display optimism in the face of failure
 - Demonstrate persistence, don't give up
- The *leader* must know when the game is over and lost



Planning vs Opportunism

- A clear vision and well-documented product life cycle — planning — is key to successful execution
- Yet, opportunism can be an important strength relative to the inflexibility of a large company
- Finishing products is a prerequisite to balance the tension:
 - Keep the development times short
 - Train the team to accept changes late in the development cycle
 - Let the market do the talking



Outside→Inside Responsibilities

- It's the leader's responsibility to stay in close contact with the company's outside environment
 - Then incorporate that knowledge in the strategy
 - Your board, industry roundtables
- Everyone in the organization should know your strategy
 - Each to his/her own level of understanding
 - If you don't communicate, employees will imagine their own, normally to your detriment
- You must create & nurture the company culture, else someone else will



Section 6: Personal Issues & Characteristics



Bootstrap: Lessons Learned...
by Kenneth L. Hess

Family

- Communicating business strategy & objectives with immediate family members is very important
 - Just as within the company, if you don't, they'll imagine what they will
 - “Contract” with your spouse
- No such thing as “having it all”
 - Pursue a no regrets strategy
 - Establish some inviolable boundaries



Personal Characteristics

- Your #1 objective must be the success of the company
- You must be comfortable knowing your friends think you're crazy
- You do NOT need to be a big risk taker
- You DO need to be comfortable with uncertainty
- You DO need to be comfortable forcing your will on others
- Discipline, determination, perseverance, and hard work make up for a lot of mistakes

