Are You an Inventor or Are You an Entrepreneur?

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Discussant: Nathan Anderson, Independent Consultant
Biopharma Strategy and Operations

A Collaboration with NC COIN:
Joe Magno, Executive Director
Welcome

Founders and Co-Chairs:

Michael Welling
Partner, Meridian Risk Management

Joanne Gere
Executive Director, Westchester Biotech Project
We bring together the region’s movers and shakers with researchers, engineers, and data scientists from across therapeutics, diagnostics, and devices. As a community, we’re working to stimulate opportunity density on a regional, national and international scale.

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What Did We Forget?

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Please Enter Your Questions in the Chat Box
Are you an Inventor?

or

Are you an Entrepreneur?

By Russell Thomas
AGENDA

- My Perspective
- Definitions
- Are Entrepreneurs Born or Made?
- Entrepreneurs versus Inventors
- Label of ‘Entrepreneur’ is Flexible
- Unique Attributes of Entrepreneurs
- Three Patterns of Start-Up CEOs
- Start-Up CEO’s Responsibilities
- Various Roles for Inventors
MY PERSPECTIVE

- Technologies don’t kill companies, people kill companies!
  - TEC Program, NC State University
- Old entrepreneur question: Do you bet on the jockey or the horse?
  - There is actually academic validation of both perspectives so everyone is right.
    - Each year, there are a small percentage of science-based start-ups that are so compelling that the sheer magnitude of their disruptive performance will likely pull them into the market-place even if their management and technical teams are sub-par
    - For the other 95%, its people and the organization of those people that are the difference between
      - Tremendous success
      - Success
      - Failure
      - Walking dead
      - Road kill
MY PERSPECTIVE

- **Tremendous success**
  - Company has captured the full potential of the technology’s product advantage
  - Achieving a sales revenue goal or acquisition price that is 75+% what your early hopes and aspirations

- **Success**
  - Achieving a sales revenue goal or acquisition price that personally validates the effort
  - $5+ million exit on <$2.5 million investment

- **Not a Success**
  - Ran the new venture experiment, did not work as desired, close it down
  - Achieving a $5 million exit on >$10+ million investment

- **Walking Dead**
  - Team has belief/hope that it’s technology can enable a product advantage
  - Can not open the right door(s) to get to a significant point of validation
  - Team can not attract sufficient people and resources to the project to move beyond 1-2 FT and 2-3 PT folks
    - Phase I SBIR/STTR folks every 18 months

- **Road Kill**
  - Company implodes for a variety of reasons, usually it’s a people issue that drives the venture into a ditch or significantly impedes the company from advancing

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DEFINITIONS

ENTREPRENEUR

Definition: Person who organizes and manages any enterprise, especially a business, usually with considerable initiative and risk

INVENTOR

Definition: Person who invents, especially one who devises some new process, appliance, machine, or article;

one who makes inventions.

What is an invention?

Definition: New, useful process, machine, improvement, etc., that did not exist previously and that is recognized as the product of some unique intuition or genius, as distinguished from ordinary mechanical skill or craftsmanship.

Content Thanks to Websters Online Dictionary
UNIQUE ATTRIBUTES OF INVENTORS

- Often excellent problem solvers
- Tend to keep their ‘most valuable’ ideas to themselves
- Embrace failure. They’re not afraid to fail.
- Love tinkering
- Possess boundless curiosity
- Creative
- Persistent
- Self-confident, Self-motivated
UNIQUE ATTRIBUTES OF INVENTORS

Typical Blind-spots

- Often over-estimate the maturity of their technology
- Typically vastly under-estimate resources needed to develop and launch a successful product
- Insufficient verification that technological advantage has commercial value
  - 1-3 ad hoc discussions usually does not make a pattern
- Cold calling skills to open collaborative doors
ARE ENTREPRENEURS BORN OR MADE?

- 50 + year search for the "entrepreneurship personality"

- Assumptions about entrepreneurs:
  - High Need for Achievement
  - High Risk Tolerances

  Bottom line: grounded in belief that static personality traits determined entrepreneurial outcomes (i.e., entrepreneurs are born; not made).
ARE ENTREPRENEURS BORN OR MADE?

- **Answer:** *There is No Entrepreneurial Personality!*
- **Conclusion** - No systematic differences in personality traits between entrepreneurs and general population (Gartner, 1988). Entrepreneurs simply didn’t display a higher risk tolerance than members of the general population.
- Research program considered one of the biggest failures in management research
ARE ENTREPRENEURS BORN OR MADE?

- In the midst of the “dark ages” of individual level research, Busenitz and Barney (1997) theorized that perhaps
  - Entrepreneurs don’t display higher risk tolerances because they don’t perceive the risk
ARE ENTREPRENEURS BORN OR MADE?

- Enter: The Cognitive Approach…
  - Entrepreneurs “think” differently than general population -- higher propensity to use biases and heuristics
    - Overconfidence bias
      - (aka – don’t see opportunities as risky)
    - Representativeness heuristic
      - (aka– used to spot patterns in external environment)
ARE ENTREPRENEURS BORN OR MADE?

- More refined support for cognitive approach
  - Self-efficacy—belief in your ability to succeed—drives entrepreneurial action (Chen et al., 1998).
  - Belief that you can be an entrepreneur is more important than belief in your ultimate success in determining whether you become an entrepreneur (Townsend et al., 2010).
  - Self-efficacy is molded through prior experience, classroom activities, prior family experiences, mentoring relationships, etc.
UNIQUE ATTRIBUTES OF ENTREPRENEURS

- Passion (The work is the fun!!)
- Organize, advance and succeed in a world awash with incomplete info
- Can formulate a strategy (Plan to Win)
- Impatient (Today is always better than tomorrow)
- Can think both big and small
- Realists or Optimists, but seldom pessimists
- Understand differences between assumptions/beliefs and facts (Knows when to validate beliefs so they become facts)
- Not afraid of failure/embarrassment
- Willingness to leave their comfort zone
- Handle stock dilution and usually decreasing amounts of company control
- Effectively handle unpleasant situations & heavy personal responsibilities (Payroll, taking others’ hard earned money)

- Usually think in problem / solution sets
  - Context
  - Forces
  - Problem (real, root)
  - Solution
  - Resulting Context
  - Rationale
  - Uses
    - Known
    - “Potential if”
ENTREPRENEUR LABEL IS FLEXIBLE

- Individuals who take leap of faith to capture a business opportunity often placing significant personal assets at risk
- Frequently identified with many ‘champion’ qualities
- Ultimately, there is a self-labeling choice
- Attributes that span a spectrum
  - One versus several early stage companies
  - Grow from 0-20 employees versus 50-150 employees
  - 0 to multiple successful exits
WHAT MAKES AN ENTREPRENEUR

- Heavily involved in early stage venture by
  - Attracting resources (capital, people, partners)
  - Developing and/or delivering a differentiated and customer valued product offering that offers company a reasonable path to become self-sustaining and growing entity
  - Strategically impact results by building multiple parts of a viable company

Michael Porter’s Value Chain
PUNCH-LINE IS SIMPLE BUT SOMETIMES NOT SELF-EVIDENT

- Many people are solely entrepreneurs
  - Execute and grow someone else’s idea into a business
- Some people are entrepreneurs & inventors
  - Execute and grow their own idea into a business
- Many people are solely inventors and NOT entrepreneurs
  - Inventors who understand and value this realization have real hope to attract entrepreneurs with whom together they can become successful
  - Inventors who do not understand OR cannot properly categorize themselves are often in for considerable frustration
OVERLAP OF BOTH SKILL SETS IS RARE

Inventors

BOTH

Entrepreneurs

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THREE PATTERNS OF STARTUP CEO’S “ENTREPRENEURS”

- “Both” Inventor/Entrepreneur who is customer-problem and product-solution centric
  - Deep, unique expertise into technology
  - Listens and understands customer needs well and translates them accurately into the product design and specifications
  - Heavily involved in overseeing technology and product engineering
  - Possesses average to above average leadership and people mgt. skills
  - Can deliver a viable product that truly solves a customer need – really good starting point to begin to grow a new business
THREE PATTERNS OF STARTUP CEO’S “ENTREPRENEURS”

- **Entrepreneur** who is networking, team-building, and fundraising focused
  - Positions company at intersection between
    - Dynamic list of ‘achievable’ product offerings
    - Depending on customer need
    - Investors who significantly influence the firm’s business model and strategy
  - Genuine dealmakers because they dynamically align the three stakeholders above, practically on the fly
  - Focused on solving market need (or fundraising) and often more technology agnostic
THREE PATTERNS OF STARTUP CEO’S “ENTREPRENEURS”

- Entrepreneur who takes a comprehensive approach to commercialization process by formulating business strategy from ground up
  - Strongly link technical capabilities with unique, protectable offerings with highly validated customer needs
  - Thoroughly know ‘product opportunity’ based on extensive market research
  - Develop strong business strategy and embodies right marketing, operations, financial, technology, intellectual property strategies... and summarizes in a highly compelling business case
- Establishes very clear commercialization path and uses this to build a best-in-class team and investors who agree with plan
STARTUP CEO’S RESPONSIBILITIES

- PreSeed stage
  - **Create a Vision and gather resources for start-up**
  - Validate the optimal technology-product-market linkage
  - Formulate the opportunity and business model/strategy and build the business case
  - Assemble the core team
  - Assemble / organize key intellectual property
  - Attract venture mentors/coaches
  - Incorporate the venture
  - **Create Momentum**
STARTUP CEO’S RESPONSIBILITIES

Seed stage

- **Sell a Vision and Attract Needed Resources**
- Manage product development to viable first product that solves real customer problem
- Manage market engagement
- Manage technology strategy and I.P. development
- Properly sequence the growth of the team
- Prepare for operations and supply chain management activities
- Develop a high-performing culture based on company sustainability and success
- Choose your initial office/facility
- **Create More Momentum**
STARTUP CEO’S RESPONSIBILITIES

Build an organization of people who can develop & deliver a product or service with real customer value.
INVENTOR ROLES IN START-UPS

- Various roles inventor founders/co-founders can think through
- Support the technology as it is licensed through their university or company’s technology transfer office
  - Collect royalty checks, simplest if you can find an existing company with sufficient resources to commercialize it.
- In many instances, early stage technologies need additional development and risk reduction before it becomes ‘commercially viable’
  - A lot of times, this is done through a start-up company. Inventors can engage start-up companies in a variety of ways:
    - Founder/cofounder
      - Active
      - Passive
    - Scientific adviser
      - Active
      - Passive
    - Chief science officer, chief technology officer
    - CEO (become VP of Product Development) find BoD/President/COO person who has significant entrepreneurial experience
Are you an Inventor?

or

Are you an Entrepreneur?

Thank you,
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