

Session 8 - Product Design Entrepreneurial Product Development

Professor Karl T. Ulrich Vice Dean of Entrepreneurship & Innovation

@ktulrich | ktulrich.com | ulrich@wharton.upenn.edu

Selling Direct via Internet

- Unique, proprietary product.
 - Gross margin >50%
- Price point \$50 \$300
- Compact UPS/USPS/FedEx freight <10% of price
- Easily searchable via keywords
- Amazon a critical channel.



Fun

- Your design in production.
- Working with a great team over many years.
- Positive cash flow.
- Seeing your product on the street.
- Controlling your own destiny.
- Getting things done efficiently.



Not Fun

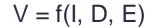
- Product not perfect.
- Loaning the company money and guarantees of third-party loans.
- Laying off a factory workforce.
- Being sued.
- A customer falling and suffering injuries.
- A safety recall.
- Knock offs and trademark violations.
- Cyberfraud.
- Homeless employee living in back of factory.
- Fake reviews.

1. When market uncertainty is high, just make and sell 100-1000 units ("lean" and "mvp" strategies)



Wharton

2. Luck (Exogenous Factors) is a Key Determinant of Success





3. Sometimes new venture success is about staying alive long enough for something random and good to happen to you.



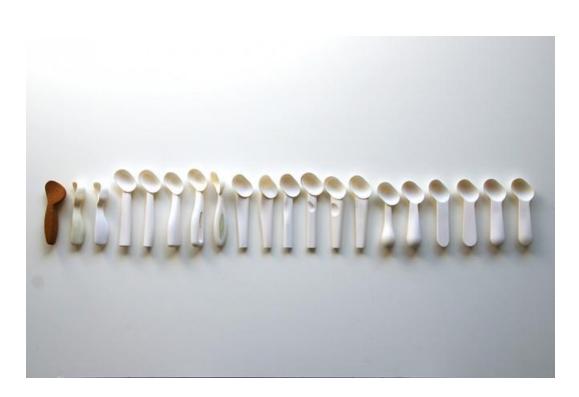
4. Pull from Needs (to Maximize Chances of Value Creation)

A "push" is fun, and may change the world, but is very, very risky.



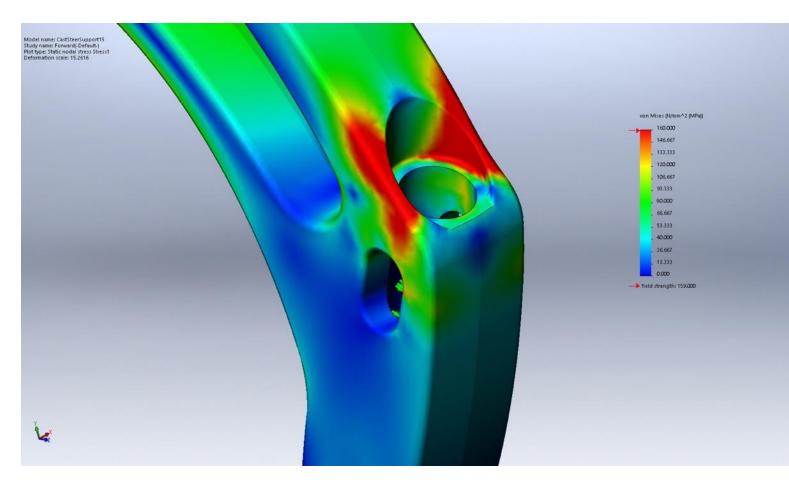
🕏 Wharton

5. Care and Craft Matter, and Refinement is Hard Work





6. There's a reason they call it HARDware.



7. Forecasts of New-Category Ventures Often Wildly Optimistic

Original volume projections: 40,000 units/month by end of 2002.

"I would stake my reputation, my money and my time on the fact that 10 years from now, this will be the way many people in many places get around. If all we end up with are a few billion-dollar niche markets, that would be a disappointment. It's not like our goal was just to put the golf-cart industry out of business."

– Dean Kamen





8. Sometimes the service and business model is more important than the hardware

