“It Always Takes Longer and Costs More”

The Sales Learning Curve – Optimizing the path to positive cash flow

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Development of Entrepreneurial Companies

► Seed Stage
  ▪ Creating the Business Plan

► Development Stage
  ▪ Creating the product

► Go-to-Market Stage
  ▪ Getting Traction
  ▪ AKA “The Chasm”

► Market Expansion Stage

► Harvest
Where the Risk Is

- **Seed Stage**
  - Creating the Business Plan
- **Development Stage**
  - Creating the product
- **Go-to-Market Stage**
  - Getting Traction
  - AKA “The Chasm”
- **Market Expansion Stage**
- **Harvest**
Go-to-Market

► Successful Beta
  ▪ Conversion of Beta’s to customers

► Recruit / hire new VP sales
  ▪ Typically Regional Manger level sales exec in related industry

► “Go for it”

► It is an exciting and optimistic time...
Rapid Sales Deployment -- The Seduction of the CEO

► Cash Considerations
  - Growing expense / Zero revenue -- Cash is being consumed
  - Fastest / least painful route to cash is growing the revenue line as fast as possible
  - Pressure from the investors / board

► Competitive start-ups
  - “We will not forfeit any game by not showing up”
    - Each company must deploy to the superset!
  - A battle to emerge from the pack: “First Mover Advantage”

► Overconfidence
  - “The beta went great…”
  - “The press loves us…”
  - “We’re hot!”
    -- (“…and a lot smarter than the other guys…”)
The Case of
Nano – Optical Customer
Adaptive Software and
Hardware Corporation

N O C A S H
NOCASH: Goes to Market

► With successful Beta in sight...
► Hire the VP Sales
  ▪ Often times a “regional” level sales manager at a larger company in similar market
  ▪ AKA:
    ► SVP
    ► EVP
    ► EVP WW Field Operations
    ► President Field Operations
    ► President / COO
    ► President / CEO
► New VP sets the plan and hires the sales force based on a “Capacity Model”
NOCASH: Revenue Planning -- The Capacity Model

► Revenue: For each sales rep assume:
  - Quota
  - Apply the company’s gross margin
  - Start up productivity ramp (by quarter)
  - Attrition

► Expense: For staffing and logistics determine
  - On-Target-Earnings (OTE) per sales rep
  - Number of sales reps per manager and cost per manager
  - Number of system engineers per Field Sales Exec (FSE) and cost per system engineer
  - Number of inside sales reps per FSE and cost per rep
  - Number and build-out of field locations
NOCASH: Revenue Planning -- The Capacity Model

Revenue: For each sales rep assume:
- Quota -- $1.5 M
- Gross Margin – 90%
- Start up productivity ramp (by quarter) – 0, 1/2, 1
- Attrition – (25%)
- ~ $ 1,000 K / FSE per year net (after 6 months startup)

Expense: For staffing and logistics determine
- Number of sales reps per manager
- Number of system engineers per Field Sales Exec (FSE)
- Number of inside sales reps per FSE
- Salary and commission levels
- Number and build-out of field locations
- > $500K / person / year

Marginal contribution per FSE <= $500K / Yr
NOCASH: The Hope

- Based on a $1.0 M / mo burn rate starting point
- Hire 30 sales reps, get to cash flow positive by end-of-year
NOCASH: The Reality

► Fire the VP sales and most of the sales force, do a big cutback
► Maybe fire the CEO…
The Last Mover Advantage

The last man standing with cash...
Manufacturing Learning Curve (MLC)

- Well known principle in business
- Cost decreases as volume increase
- Shape of curve differs in different industries
  - Semiconductor and Steel industry “price on the curve”
- Learning is non-predictive – everyone doing their job well
- MLC is visible to us based on available math
  - cost accounting gives us the points to plot
MLC based pricing

Volume (Time)

Cost

Price
Sales Learning Curve (SLC)

► Analogous to MLC, but focused on sales interface rather than manufacturing
► Key variable to measure is the effect of learning on SALES YIELD
  ▪ Equal to the average production per full time, fully trained sales rep per year
  ▪ Not measured, not visible
  ▪ Sales Yield is to SLC as Product Cost is to MLC
► Like MLC, learning takes place in many ways – “everyone just doing their job”
► SLC is an Enterprise effect – not just the sales department
The Product Centric Corporation

Customer 1
Customer 2
Customer 3
Customer 4

Production Line 1
Production Line 2
Production Line 3
Production Line 4

Production Facing Departments/Employees
Customer Facing Departments/Employees

Production Frontier
Product Development
Customer Frontier

Manufacturing Learning
Sales Learning

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SLC Learning -- Product

- Completeness
  - Features
  - Installability

- Correctness
  - Does it do what it is supposed to
  - Does it do what the customers need

- Fit
  - Does it work in the required environments
SLC Learning -- Market

► Positioning
   - Correct marketing messages
   - ROI proof
   - Market segmentation
   - Competitive Analysis

► Promotion
   - Customer success stories
   - Correct and sufficient collateral material
   - Correct and sufficient shows, PR, advertising

► Price
   - Across multiple channels
   - discounts

► Channels of distribution
SLC Learning -- Sales

- Sales model
- Sales pitch
- Training and development
- Availability of executive selling
- Correct sales profile
  - Learning phase
  - Development phase
  - Expansion phase
The Sales Learning Curve

Yield vs. Customer Transactions

- Fully Loaded Cost/SR
- Standard Quota

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Staffing for Learning

- **Yield**
- **Customer Transactions**

- Fully Loaded Cost/SR
- Standard Quota
Staffing when Marginal Contribution is Visible

Yield

Customer Transactions

Standard Quota

Fully Loaded Cost/SR

Individual SR Productivity Lead Time
“Pedal-to-the-Metal” Staffing

Yield

Customer Transactions

Standard Quota

2 x Fully Loaded Cost/SR
NOCASH Revisited – Pedal-to-the-Metal Staffing too Early

- Metal Staffing too Early

- Fully Loaded Cost/SR

- Standard Quota

Customer Transactions

Yield
Tracking Sales Yield

- Often times very few data points
- Often time very random data points
- However, any data is better than no data
- An exercise in data smoothing
  - Six months trailing average
  - Curve fitting
- But, probably a lack of clarity
- However...

...you will probably know it when you see it
Different Types of Companies →
Different Shaped Curve

“Faster, Better Cheaper”

“I innovator”

“Brave New World”
The Nature of Learning

- **Sequential** – Learning creates discovery
  - Learn “A”
  - Discover new Problem
  - Learn “B”

- **Iterative** – even after learning, need for “perfecting” – minor learning
The Nature of Learning

Discover → Remediate → Test → Discover

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Planning for Learning

► Identify the specific characteristics of your company, product and market
  ▪ Develop SLC expected model
  ▪ Identify, track and report on the learning opportunities
  ▪ Identify, track and report on sales yield

► Select initial sales personnel to enhance corporate learning
  ▪ A different kind of rep

► Mobilize the company for learning

► Do not ramp up expenses
  ▪ Perhaps reduce R&D expenses at this time

► Set investor and employee expectations to account for uncertainty and learning
Quantitative Methods

► Marginal Contribution analysis
  - Expected Gross Margin of FESR at Quota
  - Minus - Cost / year of a fully loaded FESR
  - Equal - Marginal Contribution

► Breakeven Analysis
  - Number of required FESRs at Marginal Contribution to offset fixed costs
  - Less effect of SLC (reduces marginal contribution)
  - Factor in organizational build-out time – NOCASH example
    - Needed 30 FESRs – example showed batch hiring of all of them
    - Would need to hire Sales VP, 4 – 5 RM, and 20 SE, find offices, develop training, etc.

► Sparse Data
  - Curve Fitting
  - Six months moving averages

► Sales Yield Accounting – the sales version of Cost Accounting
SLC principles are broadly applicable to channel selling.

All of the same issues relative to “merchantability” of the product by the company:
- Company has to make the first sales by the channel
- And the communication with the end customer is more distant

In addition to all other learning, need to do the learning relative to channel acceptance as well.
Time to Cash Flow Breakeven

Cash flow breakeven is achieved when requisite number of FESRs, make sufficient marginal contribution

\[ (#\text{FESR} \times MC/\text{FESR} - \text{Fixed Cost} > 0) \]

On SLC, yield starts at zero and marginal contribution starts negative, goes positive only as company “learns”

But, learning is sequential and iterative
Time to Cash Flow Breakeven

- Based on numerical modeling
  - Time to breakeven correlates directly to the learning curve
  - Learning $\rightarrow$ Positive Marginal Contribution $\rightarrow$ Cash Flow Breakeven

- Time to cash flow breakeven reasonably independent of sales staffing
  - More staffing may increase rate of initial discovery, but cannot make it less sequential

- MORE STAFF DOES NOT SPEED UP LEARNING – JUST CONSUMES MORE CASH!

- Basically, it is not ready until it is ready
A corollary: SLC impact in the Mature Company

► As companies mature they develop and release new products
  - As differentiated from new versions of old products
  - For example, in the software business, there are no “one-product” companies with revenue > $1 Billion

► Often times new products given to existing sales force
  - Doesn’t quite work right
  - Hard to sell and install
  - Sales reps need to make quota and “move on”
  - The new product is...
    - “Radioactive”

► Result:
  - New product fails to meet plan by a wide margin
  - New product is killed
A corollary: SLC impact in the Mature Company

- Companies forget the learning curve they experienced in their initial go-to-market
- Critical to replicate that product / market learning process
  - Segregated sales force
  - Low productivity expectations
  - Focus on organizational learning
- Only deliver to larger sales force when learning is complete and sales yield by product is competitive
“It always takes longer and cost more…” – MAYBE NOT

► Plan the development of companies to include sales learning
  ▪ Plan for low initial sales productivity and focused cost management
  ▪ Focus the company on managing and reporting on the requisite learning

► Eliminate the wishful thinking about getting to cash flow positive
  ▪ Do it for less overall cash

► Do it with less trauma to the organization
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