TIM 80C Lecture #9  9-26-16

Agenda

(1) Estimation

(2) Product Strategy, Market Strategy & Business Strategy

(3) Project Phase II

(4) Midterm

(5) Work on Project (time permitting)
(1) Estimation

(1) Before estimating, study the topic – on line? – ask around.

(2) Estimate a range \([\text{low, high}]\) in order to get a \(\%\) accuracy, e.g., \(80\%\) of surface temp. of sun \([5,000, 10,000]\) actual: 10,000\(^\circ\)F

(3) accuracy vs. precision

higher accuracy \(\rightarrow\) higher range
higher precision \(\rightarrow\) smaller range

The more precise the answer (small range) the more likely the answer is incorrect.

(4) It's better to estimate in groups rather than individually. (Wisdom of the crowd)

(5) To estimate, use Analogies/Similes
(6) Explain your process.

(7) Practice

(2) Product Strategy, Market Strategy, & Business Strategy

Product Strategy: the plan for how the start-up will develop the product

Stages:
(1) Customer Needs Identification (Marketing Mix)
(2) Conceptual design (FAST, Function Structure (FS), Morphological Matrix (MM), SC)
(3) Building & testing prototype
   - α - proof of concept
   - β - customer feedback
   - Production Prototype (manufacturing)
(4) Releasing the Product

*SC = Selection Criteria
Market Strategy

- Customer Segmentation
  - Type & size of the customer

  Example: Cisco Systems

  - Service providers
    (Comcast, ATT, Verizon)
  - Enterprises (>1000 employees)
  - Mid-size business (≤500 employees)
  - Small businesses (≤250 employees)

- Geographic - country, state, region

  Cisco - Americas
    - Europe, Middle East, Africa
    - Asia Pacific (Japan & China)

- Demographics: age, gender, income, education

- Psychographic - lifestyle, personality

- Behavioral - brand loyalty, sensitivity to price, path dependency
- Segmentation should be done from multiple perspectives
  - High level: identifying a target segment
  - Lower level: 4P's of Marketing

- Segmentation depends on the product and the industry, and the market

Business Strategy (or Competitive Strategy) depends on where the product lies in the context of lifecycle analysis.
Competitive Strategies

Target Customers

Innovators/early adopters → Focus Strategy
Early adopters/late adopters → Differentiated Price
Late adopters/laggards → Discount

Technology start-ups will operate during the early life-cycle stages.
Project Phase II

Emphasis: getting a good product strategy for your product

Key Steps:

1. Obtaining the correct Function Structure

2. Obtaining a good Morphological Matrix that emphasizes the "design space" for your product
   - Target 5-10 solution principles for each sub-function
   (use brainstorming & product dissection)

3. Generating plan for developing the product (see Product Strategy notes above)
(4) Midterm

Tim 80c has 3 parts

(1) Lectures/handouts - Learn tools, vocabulary, e.g., structured problem solving, FAST

(2) HW & Exams - Practice tools & techniques in a constrained environment

(3) Project - Applying the tools & techniques in an unconstrained environment

Midterm is in 1 week

has 1 problem: create a start-up company in a particular industry

- Product Strategy: FS, FAST, MM
- Market Strategy: Revenue MAP, MM, (4Ps)
- Business Strategy: Porter's 5 forces, 2x2 competitive strategy matrix, life cycle / product segmentation diagram
Data on the market will be provided.

open notes

Extra notes

4 P's of Marketing

Having created a revenue map & identified a specific segment, apply the 4 P's

1. **Product** - what is the product of interest to this segment?

2. **Promotion** - how will we communicate with buyers

3. **Placement** - where will it be sold

4. **Price** - what price will we charge