TIM80c Lecture 15 (5/20/14)

Agenda

1) Review Financial Strategy
   - Cash Flow Analysis
   - Capital Structure
   - Accounting

2) Homework 4

3) Financial Strategy: Funding Plan

4) Project Phase III
2. Homework 4

Problem 1: Risk Assessment (Decision Analysis)

(A) Return on Investment (ROI):

\[
\text{ROI} = \frac{\text{Net Profit}}{\text{Invested Capital}}
\]

\[
= \frac{\$11,000 - \$12,000}{\$10,000} = -10\%
\]

Problem 2: Risk Assessment with discounting

\[
\text{Annual discount factor, } d = 6\%
\]

\[
NPV = \frac{\$10,000}{(1+d)^0} + \frac{\$1,000}{(1+d)^1} + \frac{\$12,000}{(1+d)^2}
\]
Problem 41: Apple Financials

Income Statement: on 28 September 2013

Total Revenue: $170,910 Million

Net Income: $37,037 Million

Return on Sales (Profit Margin) = \frac{\text{Net Income}}{\text{Total Revenue}}

= \frac{37,037 \text{ M}}{170,910 \text{ M}}

\approx 22\% \text{ (very good)}

Due to Apple's Supply Chain (TI M125)
Balance Sheet: on 28 September 2013

Total Assets: $207,000 Million

Total Liabilities: $83,451 Million

Total Equity: Total Assets - Total Liabilities
(Book Value)

$207,000 - $83,451
= 123,549 Million

Market to Book Value: \[
\frac{\text{Market Cap}}{\text{Book Value}} = \frac{\$520,000 \text{ Million}}{\$123,549 \text{ Million}}
\]

\approx 4
3. Financial Strategy: Funding Plan

The Funding Plan is a time-phased plan that describes when and how the start-up will raise capital.

Process for Creating a Funding Plan:

1) Set the funding objectives for 3-5:
   (How much capital is needed based on cash flow analysis)

Example:

Seed Capital: to develop a working prototype
$200,000 in Year 1

Round A: product development
$2M in Year 2

Round B: product launch (manufacturing, marketing)
$10M in Year 11
2) Decide the amount of equity that will be exchanged for funding.

Dilution = % reduction in ownership

Example:

Seed Money
Dilution = 30% ⇒ Founders are willing to give up 30% of the company

3) Determine the funding sources

(A) Private sources of funding
- Founders personal savings
- Friends and family (Not recommended)
- Angel Investors (Wealthy individuals backing investments with high risk/reward)
(b) Government Funding
   - Defense (e.g., DoD, USA, ...)
   - Public Research (e.g., NSF, NIH, EPA, ...)

(c) Large Companies
   - Microsoft, Cisco, Facebook,

(d) Financial Institutions (Professional Investment)
   - Investment Banks (Merrill Lynch, Goldman Sachs, ...)
   - Venture Capitalists (Kleiner Perkins, ...)

(e) Bank loans (not equity)

(f) Crowd Sourcing (not equity, yet)

4) Obtain Funding
   - Compelling Product Idea (Conceptual design)
   - Presentation (Pitch)
   - Prototype/Mockup (optional)
4. Project Phase III

Every group must meet with the Instructor (Tyler) during office hours today

E2 853 4:00 - 7:00 pm

Bring your business plan (project binder) to the project review