Sales Forecasting

Objectives

- Discuss the role of sales forecasting in business model and plan development
- Examine how to forecast sales and set revenue goals

Sales forecasting is multi-staged and multi-purposed

- Plan your business
  - How much to sell?
  - How much inventory to buy?
  - How many people to hire?
- Convince investors and lenders
  - Financial projections for the future
- Improve your business
  - Trends in revenues
  - How can we improve profitability?

Use the income statement as a tool to develop revenue, costs, and profit forecasts

- While financial statements can track past activity, financial statements also forecast.
- Use bottom-up forecasting
  - Revenue forecasts: What can we sell, given the market, our pricing, and our capability?
  - COGS forecasts: How will our costs of goods sold change as our revenues change?
  - SGA forecasts: What marketing/sales effort do we need to reach our revenue goals? What infrastructure do we need to support our business?
  - How much money do we need to accomplish growth?

Forecasting

- When forecasting, start with the income statement
  - Revenues – Expenses = Profits
- Revenues = price per unit * number sold
- Expenses will be
  - Variable based on production; or
  - Fixed
    - One-time or at intervals

	Year 1	Year 2	Year 3
Revenues • *Product 1* • *Product 2*	**$100,000** *$100,000* *$0*	**$200,000** *$150,000* *$50,000*	**$500,000** *$300,000* *$200,000*
Expenses • *R&D* • *COGS/Manufacturing* • *Marketing* • *Salaries*	**$90,000** *$50,000* *$20,000* *$15,000* *$5,000*	**$170,000** *$30,000* *$40,000* *$70,000* *$30,000*	**$400,000** *$10,000* *$100,000* *$150,000* *$40,000*
Profit (Pre-Tax)	**$10,000**	**$30,000**	**$100,000**
Tax (20%)	$2,000	$6,000	$20,000
Profit (After-Tax)	**$8,000**	**$24,000**	**$80,000**
Net Profit Margin	**8%**	**12%**	**16%**

“Discovery-driven Planning” by McGrath and MacMillan

- Reverse income statements are valuable in starting the company with a economic (profit) goal mind (but no idea what revenues to target)
  - Build the vision for the company and strategy for growth from the bottom line (desired profit)
  - For example, if a $100,000 profit is the goal in year 1, at an estimated 20% profit margin based on industry norms, year 1 revenues must be $500,000
    - $100,000 / 20% = $500,000
- Must incorporate assumptions and expense forecasts

Researching profit margins for industry is helpful in calculating target revenues

- If a $100,000 profit is the goal in year 1, at an estimated **20% profit margin based on industry norms**, year 1 revenues must be $500,000
  - $100,000 / 20% = $500,000

Industry Name	*Number of Firms*	*EBITDASG&A/Sales*	*EBITDA/Sales*	*EBIT/Sales*	*After-tax Operating Margin (EBIT(1-t)/ Sales)*	*Net Margin*
Advertising	32	50.06%	15.75%	11.77%	8.20%	3.52%
Aerospace/Defense	66	20.72%	12.63%	10.24%	7.15%	6.66%
Air Transport	36	27.31%	13.02%	8.38%	6.56%	4.27%
Apparel	54	46.27%	12.98%	10.37%	7.33%	6.59%
Auto Parts	54	18.72%	9.36%	6.72%	5.19%	4.56%
Automotive	12	23.37%	10.85%	5.80%	4.10%	3.45%

http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html

Once the initial profit and revenue goals are stated, fill in the expenses to assess feasibility of these goals

- If your idea is new, work from the bottom up by estimating costs based on resources and plans
- If you have an established product, use competitors and industry data as well
- Develop the revenue forecast prior to other cost forecasts
  - Then estimate costs as a percentage of revenue
  - Compare these costs to competitors for reasonability

Summary

- Sales forecasting is a first step to building the financial statements of the company
- Using a goal setting approach, based on the reverse income statement, is a helpful starting point for sales forecasting