Starting New Ventures 64-361.202

Chap 8. Assessing Financial Strength And Viability

Dr. Jack M. Wilson

Distinguished Professor of Higher Education, Emerging Technologies, and Innovation

Klymit –the critical importance of cash flow

- 2006- Nate Alder
- Argon insulated winter garb
- 2007-2008 First or Second in 11 business Plan competitions
- Won $200,000
- Angel Investor provided $220,000
- Companies were not prepared to deal with and manufacture this, and recession was underway.
- Off shored production to Asia –some success.
- Got $2 million in VC money (Led by Level 4)
- Launched sleeping bag
- Continues to be cash flow challenge

Financial Management

- Raising money and managing a new companies finances
- Even successful companies often have to pay for cost of goods and then wait for purchasers to pay in 30-60 days. It is easy to run out of cash.
- For the new venture founder: “Cash is King”
- Can you fund growth through earnings, borrowing, or investment. All of the above?

Financial Management –Key Questions

- How are we doing? Making or losing money?
- How much cash do we have on hand?
- Do we have enough cash to meet our short term obligations?
- How efficiently are we utilizing our assets?
- How do our growth and net profits compare to our industry peers?
- Where will the funds come from for needed capital improvements?
- Can we partner with other firms to share risk and reduce our needs for cash?
- Over-all are we in good shape financially?

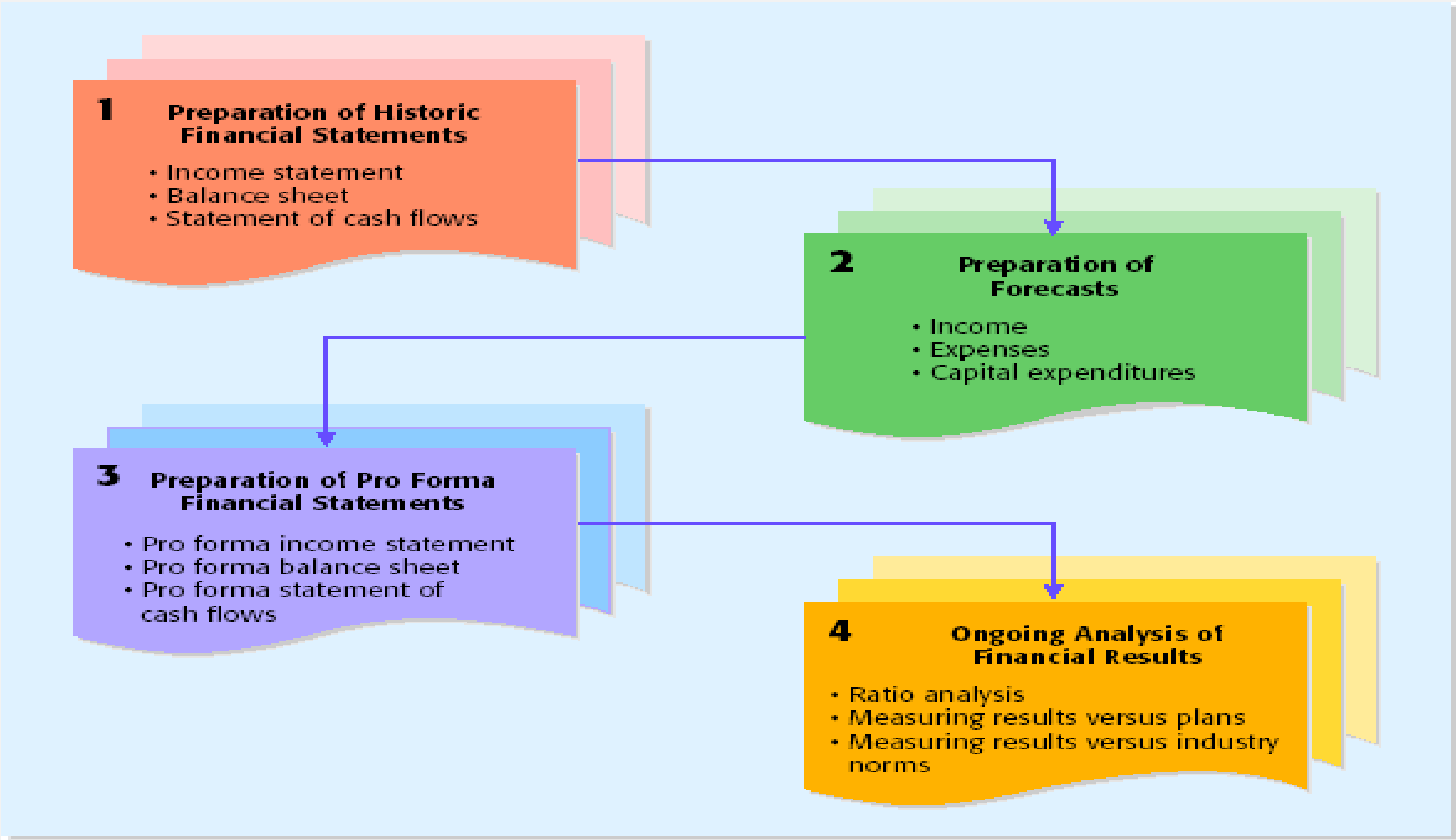
Financial Objectives of any firm

- Profitability
- Liquidity
  - Inventory, accounts receivable, ability to meet short term obligations
- Efficiency
  - How effectively a firm utilizes its assets relative to revenues and profits.
- Stability
  - Earn a profit, remain liquid, keep debt in check
  - Debt to equity ratio (long term debt/shareholder's equity)

Financial Objectives and Ratio Analysis

Profitability	Liquidity	Efficiency	Stability
A company's ability to make a profit	A company's ability to meet its short-term obligations	How productively a firm utilizes its assets	The overall health of the financial structure of the firm, particularly as it relates to its debt-to-equity ratio

The Process of Financial Management



Using Accounting Records to Track Costs

- One journal and two boxes
  - Receipts and invoices
- Accounting software
  - Microsoft Small Business Financials
  - QuickBooks
  - Peachtree
- Keep two copies of your records
- Use business checks for business expenses
- Study taxation rules

Financial Objectives and Ratios

- Efficiency - Is how productively a firm utilizes its assets relative to its revenue and its profits.
- Efficiency Ratios
  - Average Inventory Turnover Ratio - Tells the average number of times the firm's inventory is "turned over" or sold out during the accounting period.
  - Net Sales to Total Assets Ratio - Measures the firm's ability to generate sales given its asset base.

Key Components of the Process of Financial Management

- Financial Statement
  - Income statement
  - Balance sheet
  - Statement of cash flows
- Forecasts: income, expenses, capital expenditures
- Budgets: itemized forecasts
- Preparation of Pro forma Financial Statements
  - Pro forma income
  - Pro forma balance sheet
  - Pro forma statement of cash flows.
- Financial ratios: ROI, ROA, debt to equity, etc
  - need to compare to benchmark industry peers

Financial Statements and Forecasts

- Historical Financial Statements –actual past performance
  - Publicly traded companies under Securities and Exchange Commission
  - File 10-K
- Pro forma financial statements.
  - Projections for future periods based upon forecasts (~2-3 years)
  - Not usually public

Financial Statements

Financial statement	Purpose
Income Statement	**The income statement reflects the results of the operations of a firm over a specified period of time. It records all the revenues and expenses for the given period and shows whether the firm is making a profit or is experiencing a loss.**
Balance Sheet	**The balance sheet is a snapshot of a company's assets, liabilities, and owners' equity at a specific point in time.**
Statement of cash flows	**The statement of cash flows summarizes the changes in a firm's cash position for a specified period of time and details why the change occurred. The statement of cash flows is similar to a month-end bank statement.**

Income Statement

- The income statement reflects the results of the operations of a firm over a specified period of time. It records all the revenues and expenses for the given period and shows whether the firm is making a profit or is experiencing a loss.

- The three numbers that receive the most attention when evaluating an income statement are the following:

  - i. Net sales consists of total sales minus allowances for returned goods and discounts.

  - ii. Cost of sales includes all the direct costs associated with producing or delivering a product or service, including the material costs and direct labor.

  - iii. Operating expenses include marketing, administrative costs, and other expenses not directly related to producing a product or service.
- Profit Margin-return on sales = net income/net sales
- P/E –Price-Earnings ratio – Price of share/earnings per share –only for public co.

Balance Sheet

- Unlike the income statement, which covers a specified period of time, a balance sheet is a snapshot of a company's assets, liabilities, and owner's equity at a specified point in time.
  - a. The left-hand side of a balance sheet (or the top, depending on how it is displayed) shows a firm's assets, while the right-hand side (or bottom) shows its liabilities and owner's equity.
  - b. Multiple years are shown so trends can be easily spotted.

The major categories of assets listed on a balance sheet are the following:

- i. **Current assets** include cash plus items that are readily convertible to cash, such as accounts receivable, marketable securities and inventories.
- ii. **Fixed assets** are assets used over a longer time frame, such as real estate, buildings, equipment, and furniture.
- iii. Other assets are miscellaneous assets, including accumulated goodwill.

The major categories of liabilities listed on a balance sheet are the following:

- i. **Current liabilities** include obligations that are payable within a year, including accounts payable, accrued expenses, and the current portion of long-term debt.
- ii. **Long-term liabilities** include notes or loans that are repayable beyond one year, including liabilities associated with purchasing real estate, buildings, and equipment.
- iii. **Owner's equity** is the equity invested in the business by its owners plus the accumulated earnings retained by the business after paying dividends.

Balance Sheet –Key Ratios

- Working Capital = Current Assets – Current Liabilities

- Current Ratio = Current assets / Current Liabilities
- Debt Ratio = Total Debt(long&short) /Total Assets

- Example of New Venture Fitness Drinks (2011)
  - Current Assets = $122,600   Current Liabilites = $40,100
  - Working Capital = 122,600-40,100 = $82,500
  - Current Ratio = 122.6/40.1 = 3.06
  - Both are good numbers for this small firm.
  - Debt Ratio = 289.65/729.6 = 39.7%

Consolidated Income Statement

New Venture Fitness Drinks Consolidated Income Statement						
	Dec. 31, 2011		Dec. 31, 2010		Dec. 31, 2009	
Net Sales	$	586,600	$	463,100	$	368,900
Cost of Sales	$	268,900	$	225,500	$	201,500
Gross Profit	$	317,700	$	237,600	$	167,400
Operating Expenses						
Selling, General and Administrtive Expenses	$	117,800	$	104,700	$	90,200
Depreciation	$	135,000	$	5,900	$	5,100
Operating Income	$	186,400	$	12,700	$	72,100
Other Income						
Interest Income	$	1,900	$	800	$	1,100
Interest Expense	$	(15,000)	$	(6,900)	$	(6,400)
Other Income	$	10,900	$	(1,300)	$	1,200
Income before Income Taxes	$	184,200	$	119,600	$	68,000
Income Tax Expense	$	53,200	$	36,600	$	18,000
Net Income	$	131,000	$	83,000	$	50,000
Earnings per share		1.31		0.83		0.5

Consolidated Balance Sheets

Consolidated Balance Sheets for New Venture Fitness Products			
Assets	Dec. 31, 2011	Dec. 31, 2010	Dec. 31, 2009
Current Assets			
Cash and Cash Equivalents	$ 63,800	$ 54,600	$ 56,500
Accounts Receivable less allowances for doubtful accts.	$ 39,600	$ 48,900	$ 50,200
Inventories	$ 19,200	$ 20,400	$ 21,400
Total current Assets	$ 122,600	$ 123,900	$ 128,100
Property Plant and Equipment			
Land	$ 260,000	$ 160,000	$ 160,000
Buildings and Equipment	$ 412,000	$ 261,500	$ 149,000
Total Property Plant and Equipment	$ 672,000	$ 421,500	$ 309,000
Less Accumulated Depreciation	$ 65,000	$ 51,500	$ 45,600
Net Property, Plant, and Equipment	$ 607,000	$ 370,000	$ 263,400
Total Assets	$ 729,600	$ 493,900	$ 391,500
Liabilites and shareholder's Equity			
Accounts Payable	$ 30,200	$ 46,900	$ 50,400
Accrued Expenses	$ 9,900	$ 8,000	$ 4,100
Total Current Liabilities	$ 40,100	$ 54,900	$ 54,500
Long-term Liabilities			
Long-term debt	$ 249,500	$ 130,000	$ 111,000
Long-term liabilities	$ 249,500	$ 130,000	$ 111,000
Total liabilities	$ 289,600	$ 184,900	$ 165,500
Shareholders Equity			
Common stock (100,000 shares)	$ 10,000	$ 10,000	$ 10,000
Retained Earnings	$ 430,000	$ 299,000	$ 216,000
Total Shareholder's Equity	$ 440,000	$ 309,000	$ 226,000
Total Liabilities and Shareholder's Equity	$ 729,600	$ 493,900	$ 391,500

Ratios

Return on Assets-ROA=net income/ave total assets	21.4%	18.7%					
Return on Equity-ROE=netincome/ave shareholders equity	35.0%	31.0%					
Profit margin =net inc./net sales	22.3%	17.9%	13.6%				
Liquidity Ratios							
Current= Current assets/current liabilities	3.06	2.26	2.35				
Quick=quick assets/current liabilities	2.58	1.89	1.96		QuickAssets =Current assets-Inventories		
Debt ratio= total liabilities/total assets	39.7%	37.4%	42.3%				
Debt to Equity= total liabilities/owners equity	65.8%	59.8%	73.2%				

Statement of Cash Flows.

- The statement of cash flows summarizes the changes in a firm's cash position for a specified period of time and details why the changes occurred. It is similar to a month-end bank statement. It reveals how much cash is on hand at the end of the month as well as how the cash was acquired and spent during the month.
- It also answers the question of whether a company generating enough cash for various purposes: dividends, paying down debt, or investing in the company.
- a. The statement of cash flows is divided into three separate activities: operating activities, investing activities, and financing activities.
- b. These activities, which are explained in the following list, are the activities from which a firm obtains and uses cash:
  - i. Operating activities include net income (or loss), depreciation, and changes in current assets and current liabilities other than cash and short-term debt. A firm's net income, taken from the income statement, is the first line on the corresponding period's cash flow statement.
  - ii. Investing activities include the purchase, sale, or investment in fixed assets, such as real estate, equipment, and buildings.
  - iii. Financing activities include cash raised during the period by borrowing money or selling stock and/or cash used during the period by paying dividends, buying back outstanding debt, or buying back outstanding bonds.

Cash Flow Management

- Income to Cash Flow
  - Take your net profit and add back depreciation
  - Subtract increases or add decreases in **accounts receivable**
  - Subtract increases or add decreases in **inventory**
  - Add increased or subtract decreases in **accounts payable**
- Improve the flow
  - Minimize accounts receivable
  - Reduce the raw material and finished products inventory
  - Control your spending
  - Delay your accounts payable

Forecasts

- For new firm start with the business plan
- Make an assumptions sheet.
- Sales forecast
  - Regression analysis helps once there is some actual history to use.
- Cost of sales forecast –common way is percent of sales
  - Constant ratio method
- Break even point = total revenue meets total costs

Forecast of Costs of Sales

- the percentage-of-sales method
  - A method for expressing each expense item as a percentage of sales.
  - If a firm determines that it can use the percent-of-sales method and its follows the procedures described in the textbook, then the net result is that each expense item on its income statement will grow at the same rate as sales (with the exception of items that can be individually forecast, such as depreciation).

Estimate Demand

- Use historical analogy or substitute products
- Talk to customers
- Interview prospective end-users and intermediaries
- Use the entrepreneur’s knowledge and experience
- Go into limited production

Sales Forecast

- A sales forecast for **a new firm** is based on a good-faith estimate of sales and on industry averages or the experiences of similar start-ups.
- A sales forecast for **an existing firm** is based on
  - its record of past sales
  - its current production capacity and product demand,
  - factors that will affect its future product capacity and product demand, such as
    - Growth rate in the market
    - Technology innovations that make the products more attractive or produced at a lower cost.

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Summary of key ratios

- ROA-Return on assets = net income/ave. total assets
  - Ave.-average of beginning and ending (assets or equity)
- ROE-Return on equity = net income/ave. shareholder’s equity.
- Profit margin = net income/net sales

- Current ratio= current assets/current liabilities
- Quick ratio = quick assets/current liabilities
  - Quick –cash &accts. receivable

- Debt ratio = total debt(liabilities)/total assets
- Debt to equity = total liabilities/ owners’ equity

Ex. Calculating the following ratios

1. $\text{Current Ratio} = \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

2. $\text{Quick Ratio} = \dfrac{\text{Quick Assets(TA-Inv.)}}{\text{Current Liabilities}}$

3. $\text{Debt Ratio} = \dfrac{\text{Total Debt(Liabilities)}}{\text{Total Assets}}$

4. $\text{Average Inventory Turnover Ratio} = \dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory*}}$

*$\text{Average Inventory} = \dfrac{\text{Beginning Inventory + Ending Inventory}}{2}$

5. $\text{Net Sales to Total Assets} = \dfrac{\text{Net Sales}}{\text{Total Assets}}$

6. $\text{Net Profit on Sales} = \dfrac{\text{Net Income}}{\text{Net Sales}}$

7. $\text{Net Profit to Equity} = \dfrac{\text{Net Income}}{\text{Owner's Equity}}$

Financial Analysis

- Financial Analysis
  - How much money do you need?
    - Capital requirements
    - Break Even Analysis
    - Overall attractiveness of the investment
  - Where to get the money?
  - Financial Objectives and Ratio Analysis

Forecasts

- For new firm start with the business plan
- Make an assumptions sheet.
- Sales forecast
  - Regression analysis helps once there is some actual history to use.
- Cost of sales forecast –common way is percent of sales
  - Constant ratio method
- Break even point = total revenue meets total costs

Break-Even Point

- The point where the amount of sales that you need to achieve to cover your total costs.
- Break-even analysis steps:
  - Determine the sales price (per unit) of your product or service
  - Estimate the variable cost (per unit) of your product or service
  - Subtract the variable cost per unit from the sales price to calculate your contribution margin (per unit)
  - Estimate your business' fixed costs
  - Divide the fixed costs by the contribution margin percentage to calculate the breakeven point

Pro-forma financial statements

- Beginning from the forecasts:

- Pro forma income statement
- Pro forma balance sheet
  - Meet short term liabilities
- Pro forma statement of cash flows
  - Sufficient cash to meet needs?

Ratio analysis –Historic and Pro Forma

TABLE 8.9 Ratio Analysis of Historical and Pro Forma Financial Statements for New Venture Fitness Drinks, Inc.

	Historical			*Projected*	
Ratio	**2009**	**2010**	**2011**	**2012**	**2013**
Profitability ratios					
Return on assets	14.7%	18.7%	21.4%	19.0%	18.9%
Return on equity	24.9%	31.0%	35.0%	28.9%	27.2%
Profit margin	13.6%	17.9%	22.3%	18.1%	18.1%
Liquidity ratios					
Current	2.35	2.26	3.05	2.07	2.24
Quick	1.96	1.89	2.58	1.60	1.78
Overall financial stability ratios					
Debt	42.3%	37.4%	39.7%	29.3%	31.8%
Debt to equity	73.2%	59.8%	65.8%	41.5%	46.6%

New Venture Fitness Drinks –Income Statement

TABLE 8.1 Consolidated Income Statements for New Venture Fitness Drinks, Inc.

	December 31, 2011	December 31, 2010	December 31, 2009
Net sales	$586,600	$463,100	$368,900
Cost of sales	268,900	225,500	201,500
Gross profit	317,700	237,600	167,400
Operating expenses			
Selling, general, and administrative expenses	117,800	104,700	90,200
Depreciation	13,500	5,900	5,100
Operating income	186,400	127,000	72,100
Other income			
Interest income	1,900	800	1,100
Interest expense	(15,000)	(6,900)	(6,400)
Other income (expense), net	10,900	(1,300)	1,200
Income before income taxes	184,200	119,600	68,000
Income tax expense	53,200	36,600	18,000
Net income	131,000	83,000	50,000
Earnings per share	1.31	0.83	0.50

New Venture Fitness Drinks –Balance sheet

TABLE 8.2 CONSOLIDATED BALANCE SHEETS FOR NEW VENTURE FITNESS DRINKS, INC.

Assets	December 31, 2011	December 31, 2010	December 31, 2009
Current assets			
Cash and cash equivalents	$63,800	$54,600	$56,500
Accounts receivable, less allowance for doubtful accounts	39,600	48,900	50,200
Inventories	19,200	20,400	21,400
Total current assets	122,600	123,900	128,100
Property, plant, and equipment			
Land	260,000	160,000	160,000
Buildings and equipment	412,000	261,500	149,000
Total property, plant, and equipment	672,000	421,500	309,000
Less: accumulated depreciation	65,000	51,500	45,600
Net property, plant, and equipment	607,000	370,000	263,400
Total assets	729,600	493,900	391,500
Liabilities and shareholders' equity **Current liabilities**			
Accounts payable	30,200	46,900	50,400
Accrued expenses	9,900	8,000	4,100
Total current liabilities	40,100	54,900	54,500
Long-term liabilities			
Long-term debt	249,500	130,000	111,000
Long-term liabilities	249,500	130,000	111,000
Total liabilities	289,600	184,900	165,500
Shareholders' equity			
Common stock (100,000 shares)	10,000	10,000	10,000
Retained earnings	430,000	299,000	216,000
Total shareholders' equity	440,000	309,000	226,000
Total liabilities and shareholders' equity	729,600	493,900	391,500

New Venture Fitness Drinks –Statement of Cash Flows

TABLE 8.3 CONSOLIDATED STATEMENT OF CASH FLOWS FOR NEW VENTURE FITNESS DRINKS, INC.

	December 31, 2011	December 31, 2010
Cash flows from operating activities		
Net income	$131,000	$83,000
Additions (sources of cash)		
Depreciation	13,500	5,900
Decreases in accounts receivable	9,300	1,300
Increase in accrued expenses	1,900	3,900
Decrease in inventory	1,200	1,000
Subtractions (uses of cash)		
Decrease in accounts payable	(16,700)	(3,500)
Total adjustments	9,200	8,600
Net cash provided by operating activities	140,200	91,600
Cash flows from investing activities		
Purchase of building and equipment	(250,500)	(112,500)
Net cash flows provided by investing activities	(250,500)	(112,500)
Cash flows from financing activities		
Proceeds from increase in long-term debt	119,500	19,000
Net cash flows provided by financing activities		19,000
Increase in cash	9,200	(1,900)
Cash and cash equivalents at the beginning of year	54,600	56,500
Cash and cash equivalents at the end of each year	63,800	54,600

Summary of Ratios

Ratio	Formula	2011	2010	2009
Profitability ratios: associate the amount of income earned with the resources used to generate it				
Return on assets	ROA = net income/average total assets[a]	21.4%	18.7%	14.7%
Return on equity	ROE = net income/average shareholders' equity[b]	35.0%	31.0%	24.9%
Profit margin	Profit margin = net income/net sales	22.3%	17.9%	13.6%
Liquidity ratios: measure the extent to which a company can quickly liquidate assets to cover short-term liabilities				
Current	Current assets/current liabilities	3.06	2.26	2.35
Quick	Quick assets/current liabilities	2.58	1.89	1.96
Overall financial stability ratio: measures the overall financial stability of a firm				
Debt	Total debt/total assets	39.7%	37.4%	42.3%
Debt to equity	Total liabilities/owners' equity	65.8%	59.8%	73.2%