MAN301T: Entrepreneurship & Management functions

Session 7

https://sites.google.com/a/iiitdm.ac.in/sudhirvs/courses/entrepreneurship-management

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, KANCHEEPURAM

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- Introduction to Finance & Accounting
- Income Statement (P&L) and Balance Sheet
- Key Financial Ratios

Why Understand Finance?

- Finance matters to all companies because they have to bring in money and spend it in order to do business

- Questions relating to sourcing of funds
  - What are the sources and mix of inflow – owners, borrowings, sales?
  - Which product lines and regions earn the highest profits? Which ones fail to perform?
  - How long does it take to collect money that customers owe us?

- Questions relating to spending of funds
  - Are our costs what they should be? Are we spending the right amount on our assets?
  - How do we know if we are investing in opportunities that would generate most value?
  - If we increased our output by 20%, would we make 20% more money?

Key Finance Functions

- Financial management involves three key decisions
  - Financing decision: From where should the funds be obtained? best mix - capital structure
  - Investment decision: On what projects should funds be spent? Capital investment
  - Dividend decision: How much of the earnings should be paid to shareholders and how much should be retained for future growth?

What is accounting?

- Accounting is the systematic process of identifying, measuring, classifying, processing and communicating financial information pertaining to business
- Three branches of accounting
  - Cost accounting (product level), Financial Accounting (firm level), Management Accounting
- Cash based accounting
  - Typically used by very small companies
  - The company records a sale whenever it receives cash for a product or a service and records an expense whether it issues a check
- Accrual accounting
  - A little more complex and used by many firms
  - The company records a sale whenever it delivers a product or a service, not when cash changes hands
  - Gives a more accurate picture of the profit

Important Financial Statements

- In order to understand the health of a company and find ways to optimize its profitability, managers need to find the right combination of controlling costs, improving sales and utilizing assets effectively
- To learn all these, managers rely primarily on three statements:
  - the Income Statement (also called as P&L - Profit and Loss account)
  - the Balance Sheet
  - the Cash Flow statement
- All companies, whether public or private have to maintain financial statements (for regulatory reasons)
- Financial statements have to follow a general format (individual line items may vary depending on the nature of the product or business) – Generally Accepted Accounting Principles (GAAP) - US

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Introduction to Finance & Accounting

Income Statement (P&L) and Balance Sheet

Key Financial Ratios

Income statement – gives a picture of profit

- It begins with the company's revenue or total net sales during the period (top line)
- It then lists all the various costs, including
  - cost of making the goods or delivering the services
  - overhead expenses
  - taxes
- When the cost is subtracted from revenue, what is left in the bottom line is the net income or profit

CONDENSED CONSOLIDATED STATEMENTS OF INCOME (in millions) - Trimble

	Second Quarter of		First Two Quarters of	
	2016	2015	2016	2015
Revenue:				
Product	$ 407.0	$ 394.6	$ 800.6	$ 795.2
Service	109.7	105.7	211.3	206.6
Subscription	92.9	85.5	180.7	166.6
Total revenue	609.6	585.8	1192.6	1168.4
Total cost of sales	294	281.9	576.4	557.3
Gross margin	315.6	303.9	616.2	611.1
Gross margin (%)	0.518	0.519	0.517	0.523
Total operating expense	275.1	267.9	545.8	535.6
Operating income	40.5	36	70.4	75.5
Total non-operating income (expense), net	-2.2	-0.2	-2.7	4.5
Income before taxes	38.3	35.8	67.7	80
Income tax provision	2.7	10	12.4	20.2
Net income	35.6	25.8	55.3	59.8

Key Expenses

- Cost of goods sold (Production cost)
  - Includes raw material, labor and any other costs directly attributable to production
  - Production overheads are also included in the same
- Operating expenses
  - Also known as SG&A (Sales, General and Administration) – overhead
  - Includes salaries of administrative employees, rents, sales & marketing expenses and others not directly attributable to manufacturing a product / service
- Depreciation expenses
  - It is a way of estimating the cost of fixed assets that last a relatively long time
  - Simple straight-line method vs progressively lower rates

Operating expense:	Q2 2016	Q2 2015	2016 (Q1+Q2)	2015 (Q1+Q2)
Research and development	92	84.5	179.7	171.7
Sales and marketing	97.4	96.2	194.1	192.7
General and administrative	65.6	64.2	133.9	128.9
Restructuring charges	4.5	5.2	6.3	6.3
Amortization of purchased intangible assets	15.6	17.8	31.8	36
Total operating expense	275.1	267.9	545.8	535.6

Balance Sheet – a snapshot of financial position of the company

- A balance sheet shows
  - What the company owns (its assets),
  - What it owes (its liabilities),
  - And the difference between them (called owner's or shareholder's equity)
- The left and right side of the balance sheet should always be equal
  - Assets = Liabilities + Owner's equity
- Balance sheet data is most helpful when compared to a previous year. It will reveal whether the firm has accumulated assets and created value for its owner

Types of Assets and Liabilities

Assets

- Current Assets
  - Cash and marketable securities
  - Accounts receivable (what customers owe as of balance sheet's date)
  - Inventory & any Advances (prepaid expenses)
- Fixed Assets (long-term assets) - depreciation
  - Less liquid
  - Property, Plant & Equipment (PPE)

Liabilities

- Current Liabilities (short-term)
  - Accounts payable (to suppliers)
  - Short-term notes
  - Salaries and income taxes
- Long-term Liabilities
  - Loans
  - Debt

Working Capital = Current Assets – Current Liabilities

Balance sheet of Trimble as of Q2, 2016

Assets		Q2 2016		FY End 2015
Current assets:				
Cash and cash equivalents	$	231.9	$	116.0
Accounts receivable, net		377.5		361.9
Other receivables		36.1		14.9
Inventories		241.7		261.1
Other current assets		49.6		44.5
Total current assets		936.8		798.4
Property and equipment, net		152		159.2
Goodwill		2,107.90		2,106.40
Other purchased intangible assets, net		408.9		487.1
Other non-current assets		146		129.6
Total assets	$	3,751.6	$	3,680.7

Liabilities and Shareholders' Equity		Q2 2016		FY End 2015
Current liabilities:				
Short-term debt	$	130.3	$	118.3
Accounts payable		106.7		99.8
Accrued compensation and benefits		101.3		98.9
Deferred revenue		280.5		234.6
Accrued warranty expense		17.8		18.5
Other current liabilities		84.4		90.8
Total current liabilities		721		660.9
Long-term debt		594.7		611.4
Non-current deferred revenue		34.7		29.6
Deferred income tax liabilities		48.1		51.7
Other non-current liabilities		108.4		106.5
Total liabilities		1,506.90		1,460.10
Shareholders' equity:				
Common stock		1,276.40		1,238.30
Retained earnings		1,128.10		1,148.20
Accumulated other comprehensive loss		-159.7		-166.8
Total Trimble Navigation Ltd shareholders' equý		2,244.80		2,219.70
Noncontrolling interests		-0.1		0.9
Total shareholders' equity		2,244.70		2,220.60
Total liabilities and shareholders' equity	$	3,751.6	$	3,680.7

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What is a financial ratio?

- A financial ratio is just two numbers from the financial statements expressed in relation to each other
- Ratios can be a useful way to compare one firm's performance with others within an industry

Profitability ratios

- Gross profit margin = gross profit / revenue
  - It reflects the profitability of the company's products or services without overheads
- EBIT margin = Operating profit / revenue
  - Indicates how profitable a company's operating activities are
- Return on Sales (Net profit margin) = Net income / revenue
  - Indicates how much profit does a company earn for every sales rupee
- Return on Assets (ROA) = Net income / Total Assets
  - Indicates how efficiently the company is using its assets to generate profit
- Return on Equity (ROE) = Net income / Owner's equity
  - It shows how much profit the company is generating as a % of owner's investment

Efficiency Ratios

- Asset turnover = Revenue / Total Assets
  - Higher the number, better a company is at employing assets to generate revenue

- Days sales outstanding = Accounts receivable/revenue per day
  - This ratio tells you how long it takes a company to collect what it is owed
  - A company that takes 45 days to collect its receivables needs significantly more working capital than one that takes 20 days to collect

- Days payable outstanding = Accounts payable / cost of goods sold per day
  - How any days it takes a company to pay its suppliers
  - A higher number means more cash, it can also spoil relationships with suppliers

- Inventory days = Average inventory / Cost of goods sold per day

Liquidity & Leverage Ratios

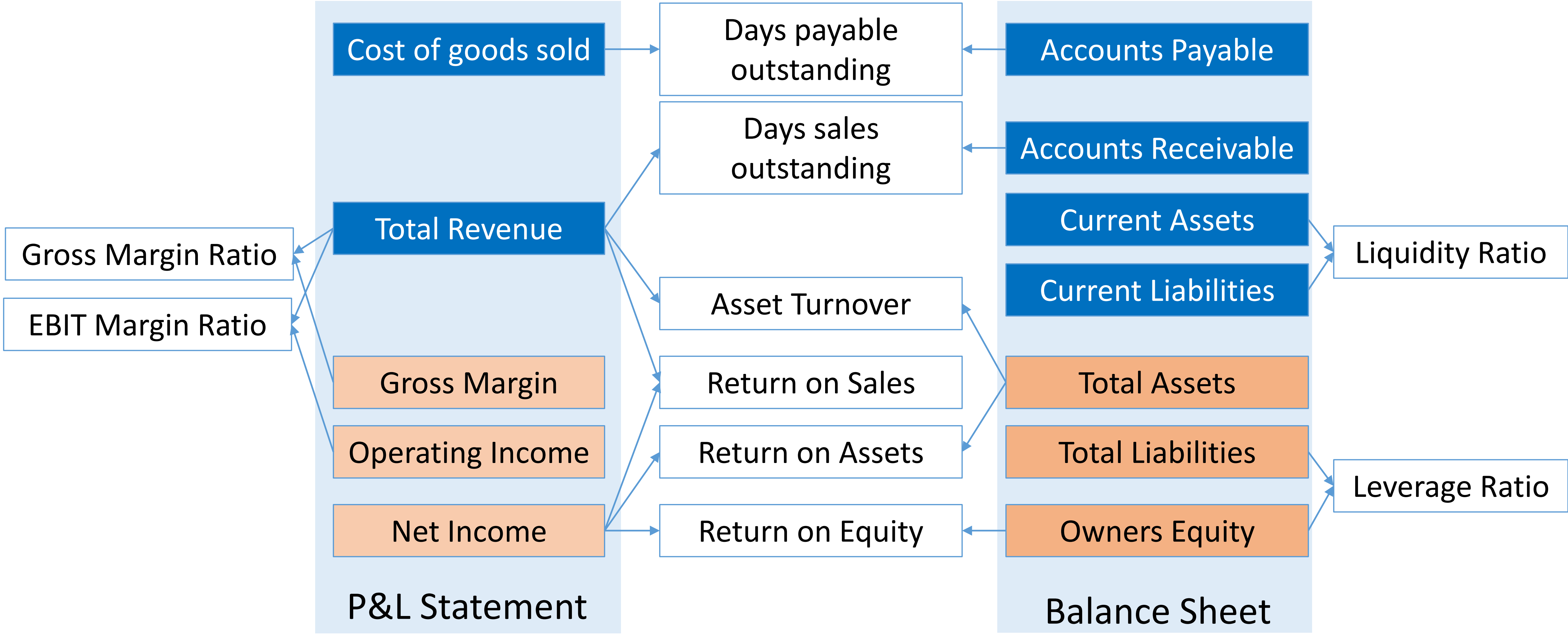
Liquidity Ratios

- Current ratio = Total current assets / Total Current liabilities
  - Ability of the company to pay its bills – higher ratio is better
  - Popular with lenders (also called banker's ratio)
- Quick ratio = [current assets-inventory] / current liabilities
  - Ability of the company to deal with its liabilities quickly without liquidating inventory

Leverage Ratios

- Debt to equity = Total liabilities / Owner's equity
  - It shows how much a company has borrowed compared with the money its owners have invested
  - High leverage is a concern, and can hurt the firm if its sales is not growing
- Interest coverage = EBIT / Interest expense
  - Measures the company's margin of safety – can the company makes its interest payments from its operating profit?

Ratios in a nutshell



Analyzing financial statements

- Compare numbers with what's typical in a given industry
- Compare statements of similar sized companies
- Watch for trends over time

- Key measures used to assess the expected stock value of a company
  - Earnings per share = Net income / number of shares outstanding
  - Price to earnings ratio (P/E) = current price of a share / previous 12 months earnings per share
  - Growth indicators
  - Productivity measures

Spot Quiz 2: 1/5

1. What is the difference between investment decision and financing decision?
   a) Investment deals with “application of funds”, whereas financing deals with “sources of funds”
   b) Investment deals with “earnings of shareholders”, whereas financing deals with “application of funds”
   c) None of the above
2. What is the difference between a balance sheet and an Income statement (P&L)?
   a) Balance sheet shows how a firm has performed in a year, while P&L tells how the firm performed in a quarter
   b) Balance sheet is targeted at shareholders, while P&L is targeted at managers
   c) None of the above

Spot Quiz 2: 2/5

3. Who among the below is the most important stakeholder as per the income statement?
   a) Suppliers
   b) Shareholders
   c) Creditors (Banks)
4. What can you infer if the operating expense is more than the cost of sales?
   a) It is a trading company
   b) It is a services company
   c) It is a manufacturing company

Spot Quiz 2: 3/5

5. What is the right relationship?
   a) Liabilities – Assets = Owner's Equity
   b) Assets - Liabilities = Owner's Equity
   c) None of the above
6. Which of the following is a current asset?
   a) Fixtures
   b) Plant & Machinery
   c) Prepaid Insurance

Spot Quiz 2: 4/5

7. [Current assets - current liabilities] is the
   a) Current Ratio
   b) Net Worth
   c) Working Capital

8. Pick the right match
   a) Accounts payable (AP) – Suppliers
   b) Accounts receivable (AR) – Customers
   c) AR and AP are part of current assets and current liabilities

Spot Quiz 2: 5/5

9. ROE = ?
    a) Revenue / Total Assets
    b) Net Income / Total Assets
    c) None of the above

10. What does Liquidity Ratio tell about a company?
    a) About the ability of the company to pay loans
    b) About the ability of the company to pay its bills
    c) Both the above

Things to find out before next class

What is Valuation?

What are the most valued Indian companies as of Sep 2017?

Why has Flipkart valuation come down from $ 11 billion last year to $ 7.5-8 billion this year?