

## Finance review sheet

### Chapter 1

#### - Describe seven principles of entrepreneurial finance

##### 1. “Real, Human, and Financial Capital Must be Rented from Owners”

→ Money has owners and therefore costs

- Time value

- Risk

→ Expect to provide a return or the venture will not survive in a market economy

##### 2. “Risk and Expected Reward Go Hand in Hand”

→ Time value is not the only cost when using others’ funds

→ More risk => More expected reward

→ How much more? Market-determined!

##### 3. “While Accounting is the Language of Business, Cash is the Currency”

→ Two important reasons to employ accounting

- Tracking and accountability for actions taken

- Quantifying different visions of the future

But, remember cash flow is a new venture’s lifeblood

- “Get enough accounting to see through the accruals to the cash account”

- Cash burn: gap between cash being spent and that being collected

- Cash build: excess of cash receipts over cash distributions

##### 4. “New Venture Financing Involves Search, Negotiation, and Privacy”

→ Public Financial Markets: standard contracts traded on organized exchanges

→ Private Financial Markets: customized contracts bought and infrequently sold in inefficient private negotiations

##### 5. “A Venture’s Financial Objective is to Increase Value”

→ Many objectives including personal ones

→ But, the unifying *financial* objective is to increase value

- rather than price, margin or sales

+ Use your calculation results from Parts A and B above to determine whether Castillo was building or burning cash during 2016 and indicate the dollar amount of the cash build or burn.

*Net cash flow from operating activities: -15,000*

*Net cash flow from investing activities: -90,000*

*Annual Net cash burn: -105,000*

+ If Castillo had a net cash burn from operating and investing activities in 2016 divide the amount of burn by 12 to calculate an average monthly burn amount. If the 2017 monthly cash burn continues at the 2016 rate, indicate how long in months it will be before the firm runs out of cash if there are no changes in financing activities.

*Monthly cash burn rate:  $-105/12=8.75$*

*Time to out of cash:  $20/8.75=2.3$  months*

→ cash flow from operating activities

→ net cash burn

→ net cash burn rate and time to out of cash

- Describe operating breakeven analysis in terms of EBDAT breakeven (survival) revenues

→ calculate EBDAT

→  $SR = [CFC / (1 - VCRR)]$

### **Operating Breakeven analysis**

- Survival/EBDAT breakeven
- NOPAT breakeven
- Identifying breakeven drivers in revenue projections

*E. Calculate the EBDAT breakeven point for year 2017 in terms of survival revenues for Jen and Larry's Frozen Yogurt Company. How many cups of frozen yogurt would have to be sold to reach EBDAT breakeven?*

■ *EBDAT breakeven:*

$$\begin{aligned}\blacksquare \text{ SR} &= [\text{CFC}/(1 - \text{VCRR}) \\ &= (\$180,000 + \$200,000 + \$15,000)/(1 - \$600,000/\$1,200,000) \\ &= \$395,000/.500 \\ &= \$790,000\end{aligned}$$

■ *Cups:  $\$790,000/\$3.00 = 263,333$  cups*

*F. Show what would happen to the EBDAT breakeven in terms of survival revenues if the cost of producing a cup of yogurt increased to \$1.60 but the selling price remained at \$3.00 per cup. How would the EBDAT breakeven change if production costs declined to \$1.40 per cup while the yogurt selling price remained at \$3.00 per cup?*

$$\blacksquare \text{ SR} = \$395,000/(1 - .533) = \$395,000/.467 = \$845,824$$

$$\blacksquare \text{ SR} = \$395,000/(1 - .467) = \$395,000/.533 = \$741,088$$

*G. Show what would happen to the EBDAT breakeven point in terms of survival sales if an additional \$30,000 was spent on advertising in year 2017 while the other fixed costs remained the same, production costs remained at \$1.50 per cup, and the selling price at \$3.00 per cup.*

$$\blacksquare \text{ SR} = \$425,000/(1 - .500) = \$425,000/.500 = \$850,000$$

*H. Now assume that due to competition, Jen and Larry must sell her Micro-Batch Frozen Yogurt for \$2.80 per cup in year 2017. The cost of producing the yogurt is expected to remain at \$1.50 per cup and cash fixed costs are forecasted to be \$395,000 (\$180,000 in administrative, \$200,000 in marketing, and \$15,000 in interest expenses). Depreciation expenses and the tax rate are also expected to remain the same as projected in the initial discussion. Calculate the EBDAT breakeven point in terms of survival breakeven revenues.*

$$\blacksquare \text{ SR} = \$395,000/(1 - .536) = \$395,000/.464 = \$851,293$$

## Chapter 5

- Describe how financial ratios are used to monitor a venture's performance
  - liquidity ratios
  - leverage ratios

### When relative valuation works best...

- This approach is easiest to use when
  - there's a large number of assets comparable to the one being valued
  - these assets are priced in a market
  - there exists some common variable that can be used to standardize the price
- This approach tends to work best for investors
  - who have relatively short time horizons
- **DCF valuation method**
  - be able to estimate NPV of the venture when given free cash flows and discount rate

### Discounted cash flow (DCF) valuation

- Discounted cash flow (DCF) valuation: in discounted cash flow valuation, the value of an asset is the present value of the expected cash flows on the asset
- Philosophical basis: every asset has intrinsic value that can be estimated, based upon its characteristics in terms of cash flows, growth and risk
- Information needed: to use DCF valuation, you need
  - to estimate the life of an asset
  - to estimate the cash flows during the life of an asset
  - to estimate the discount rate to apply to these cash flows to get present value

### Generic DCF valuation model

