Chapter 14. Choice of Financing

Questions and Problems

1. Discuss how you would expect the financing choices of the following firms to differ and explain the reasons for the differences.
    a. An early-stage research and development venture, compared to an established venture that is generating revenue.
    b. A venture with revenues that are growing very rapidly and must expand its working capital base to match, compared to a venture with revenues that are growing at the inflation rate.
    c. A venture that is highly profitable and growing, compared to a venture that is growing at a similar rate but has not yet achieved profitability.
    d. A venture that is organized as a C corporation, compared to one that is organized as an S corporation.
    e. A venture that is being undertaken by an entrepreneur who has a significant track record of new venture successes, compared to a venture that is being undertaken by an entrepreneur with no previous new venture experience.
    f. A venture that requires large investment in tangible assets, compared to one whose assets are all intangible.
2. What are the advantages and disadvantages of the following financing/organizational choices?
    a. A strategic partner.
    b. Factoring of accounts receivable.
    c. Venture capital.
    d. Franchising.
    e. Postponing payment of accounts payable.
    f. A secured loan.
    g. Licensing.
    h. Direct public offering.
    i. Initial public offering.
    j. Venture leasing
3. One advantage of franchising is that standards for product quality and service are set centrally by the franchiser. In the case of fast-food franchising, some standards are left for the individual franchisee to set. Predict the types of decisions that are left to the individual franchisee and those that are determined by the franchiser.
4. How do the following considerations affect the choice of financing?
    a. Expected growth is high, but growth prospects are highly uncertain.

b. Venture reputation is important to customers and suppliers.

c. Employees needed by the venture are not highly skilled or particularly specialized.

d. The venture's financing needs are volatile and unpredictable.

5. SIM Use the following assumptions to develop a simulation model of a venture for a three-year period.

   a. First month sales revenue is $2 million. Sales revenue in any quarter after the first is expected to grow by 5 percent over the previous month. The actual growth rate is uncertain and is equally likely to be –10 percent, 5 percent, or 20 percent.

   b. Cost of goods sold in the first period is $2.5 million. Cost of goods sold in each period is expected to be $1.5 million plus 50 percent of sales. The actual variable cost percentage is uncertain. In any period, it is equally likely to be 50 percent, 55 percent, or 60 percent.

   c. Beginning inventory is $2 million. Inventory is reduced each period by the variable portion of cost of goods sold and is increased each period by purchases. The venture purchases enough inventory each period so that ending inventory is equal to 200 percent of the variable cost for the month that is just completed.

   d. Inventory is paid for when purchased, so the venture's accounts payable balance is zero.

   e. The company sells on terms of net 30, and all customers pay according to terms. Thus, sales in the month adds to the balance of accounts receivable, and payments are received for sales from the previous month. The venture has a beginning balance of accounts receivable of $1.8 million.

   f. The venture requires fixed assets equal to at least three times monthly sales in the month just completed. Assume that capital replacement and depreciation are offsetting so that the venture must provide only enough cash to cover the increase in fixed assets.

   g. The beginning cash balance is $0, and the venture must use whatever financing sources it chooses in order to maintain at least a balance of zero. If the venture runs out of cash, it is shut down and has a liquidation value of zero. (Any assets would be used to pay off the debt balance.)

   h. The venture is expected to be harvested at the end of year 3, for a multiple of 1.2 times annualized sales in the last month, plus any cash balance and less any outstanding loans.

   i. The venture has a line of credit of up to $30 million. Actual borrowing would bear interest at the rate of 1 percent per month on the prior month's balance. The loan can be drawn on whenever funds are needed and paid down whenever cash is available.

   Run the simulation with lines of credit of $20, $25, and $30 million. Determine the failure probability in each case and expected harvest cash flows. Value the harvest cash flows to a well-diversified investor and an entrepreneur with $2 million invested in the market. The annual risk-free rate is 4 percent, the annual market rate is 10 percent, market standard deviation is 20 percent (annualized), and correlation with the market is 0.2.

6. SIM Reconsider the venture in problem 5. In addition to the line of credit, the venture can finance its operations by postponing payment for inventory purchases for one month. Doing so would cause it to forego a prompt payment discount of 2 percent. Modify the simulation model from problem 5 and simulate and value the venture.

a. As a conservative way to assess whether deferring payments for inventory purchases would be valuable, suppose the venture postpones all payments and uses the line of credit for any other cash needs.

b. Discuss how you expect your results would change if the venture were to use the line of credit first, and defer payment for inventory only if the line of credit is not sufficient to cover needs.

7. SIM Reconsider the venture in problem 5. Suppose, as an alternative to the $30 million line of credit, the venture can arrange a term loan for a portion of the total. The term loan is non-amortizing and bears interest at the rate of .5 percent per month. To evaluate whether the venture would benefit by financing part of its cash needs with the term loan, consider the following possibilities:

   a. a $3 million term loan and $27 million line of credit,

   b. a $6 million term loan and $24 million line of credit,

   c. a $9 million term loan and $12 million line of credit.

   Model the venture with the term loan and line of credit arrangements and simulate the harvest cash flows. Assume that the term loan would be repaid from the harvest proceeds. What do you conclude about the relative cost and failure probabilities of the different alternatives?