

FINANCIAL ANALYSIS ENTREPRENEURSHIP

The purpose of financial analysis is to show you, as owner of the business, what the status of your business is at any given point in time.

Financial analysis uses the income statement and the balance sheet. The income statement shows the activity in a business over time (usually a month, quarter or year). It is like a movie, and it lists the sales the business made in the period, along with the expenses that helped generate those sales. The balance sheet is like a snap shot, which shows what the business owns (assets), what it owes (liabilities) and the difference between the two (equity or net worth).

In financial analysis, we are concerned with five areas: profitability; liquidity; stability; efficiency; and return on investment (ROI). We measure each of these areas using ratios, comparing one thing to another.

PROFITABILITY

Profitability looks at dollar profits as a percentage of sales. If 1993 sales were \$450,000 and profits were \$28,800; and 1994 sales are \$575,000 and profits are \$32,000; has the business improved its profitability? Dollar profits have gone up, but profits expressed as a percentage of sales have actually gone down from 6.4% in 1993 to 5.65% in 1994. The business is less profitable.

To determine profitability, use the formula:

$$\frac{\text{NetProfit}}{\text{sales}} \times 100$$

You may also want to determine various costs as a percentage of sales. This gives you ability to compare costs from year to year, which helps you control your business financially. To do this, simply replace "Net Profits" with the cost figure you want to know.

LIQUIDITY

Liquidity tells you whether you will have enough money to pay current liabilities from current assets. If you can't satisfy current liabilities from current assets, you technically would have to begin selling fixed assets, which hurts your ability to continue as a functioning business. Banks and other lenders are often concerned with liquidity. Two different ratios are used: the current ratio:

$$\frac{\text{CurrentAssets}}{\text{CurrentLiabilities}}$$

This is expressed as "2:1" which means that there are \$2 in current assets for every \$1 in current liabilities. At one time, lenders generally looked for a current ratio of 2:1; in recent years, however, they have begun

looking at what is normal for the industry in which you operate.

Lenders can be concerned about the amount of inventory and other relatively "nonconvertible" assets the business is carrying. For instance, prepaid expenses are not normally easily convertible to cash at anything like their face values. Similarly, inventory is hard to convert to cash rapidly, if you want to get even book value (never mind full retail price). To discount the effect of these "not-quite-so-current" assets, we use the "quick," "acid test" ratio:

$$\frac{(Cash + Receivables + Marketable Securities)}{Current Liabilities}$$

The old rule of thumb for the acid test ratio was 1:1, but lenders are more willing to consider industry norms in evaluating your business's ratio.

STABILITY

Lenders are also concerned with the percentage of total assets financed by debt. The more your business relies on debt financing, the more vulnerable it is to creditors and the more unstable it appears to be. There are three different ratios used here.

The first is the debt to equity ratio. It compares total debt to total equity, and is expressed as a normal ratio:

$$\frac{Total Liabilities}{Total Equity}$$

As with liquidity, there is an old rule of thumb, which is now discarded in favour of industry norms. The old rule was 3:1 (\$3 in debt for every \$1 in equity). You may still want to use this for guidance.

Next is debt (or equity) to total assets. It is normally expressed as a percentage:

$$\frac{Total Liabilities}{Total Assets} \times 100$$

The final ratio looks at interest coverage. It compares earnings before interest and taxes (EBIT) to interest expense:

$$\frac{EBIT}{Interest Expense}$$

The higher this ratio is, the happier lenders are. While you will want to look at your industry's norms, you should probably get nervous if the ratio dips below 2 or 3:1. (Naturally, if the ratio is below 1:1, you are losing money.)

EFFICIENCY

Efficiency ratios measure how well you are managing your current assets and current liabilities. Specifically, they look at accounts receivable, accounts payable, and inventory.

Age of accounts receivable (expressed in days) is derived as:

$$\frac{\textit{AccountsReceivable}}{\textit{AverageD'aysSales}}$$

Average day's sales are total sales divided by the number of days in the period. The ratio becomes meaningful for periods of a month, a quarter or a year.

Age of accounts payable is derived as:

$$\frac{\textit{AccountsPayable}}{\textit{AverageD'aysPurchases}}$$

Average day's purchases are normally found by dividing total inventory purchases by the number of days in the period.

Age of receivables should not dramatically exceed your credit terms. Age of payables should be in line with the terms your suppliers extend you.

We express inventory efficiency either in days or inventory turns. The calculation for days is:

$$\frac{\textit{Inventory}}{\textit{AverageDaysCostofSales}}$$

Inventory turns are calculated as:

$$\frac{\textit{PeriodCostofSales}}{\textit{Inventory}}$$

Lenders generally dislike lending against inventory, although they will do it. Normally, they will lend only a

percentage of the value of the inventory that is under a certain age. Fifty percent of book value for inventory under 90 days is a favourite, although this varies with the industry norms. The older your inventory, the less comfortable the lenders are.

Inventory turns vary with industry. For most retail businesses, the rule of thumb is between 4 and 6 times. If the number is too low, you may be carrying too much inventory. If it is too high, you run the risk of stock-outs.

RETURN ON INVESTMENT

You have an investment in your business (the total equity on the balance sheet). You earn a return on that investment (net profit before taxes). Are you further ahead owning your business, or leaving your money in an interest-bearing account? This ratio, expressed as a percentage, gives you the financial answer to that question:

$$\frac{\text{NetProfit}}{\text{AverageYearsEquity}} \times 100$$

Average year's equity is calculated:

$$\frac{(\text{BeginningEquity} + \text{EndingEquity})}{2}$$

It is important to realize that this answer is only financial. It does not consider the wages and benefits you receive from your corporation (if your business is incorporated), or other benefits you get (company car, indirect business subsidy of your mortgage interest, rent and utilities), or the satisfaction you have being a business owner. These things are difficult to factor in, but you will want to consider them when looking at your ROI.