Interpreting financial statements

Introduction

Effective financial control requires businesses to prepare profit & loss accounts, balance sheets and cash flow statements, ideally monthly. Between them, they will tell a business everything that it needs to know about its financial position. These can be quickly interpreted and the health of the organisation assessed by calculating a few financial ratios. Ratios can help you to explore trends and patterns of performance. Ratios can be used to set targets. Ratios are helpful in maintaining effective financial control and quickly identify issues that need attention.

Different kinds of ratios

A ratio is simply a relationship between two numbers and is normally expressed as a number though sometimes may be expressed as a percentage. Within a business, ratios are generally used to assess the following important financial indicators:

- Profitability – whether the business is a good investment;
- Liquidity – the amount of working capital that is available;
- Solvency – how easily the business can pay its debts as they fall due;
- Efficiency – how effective the management and business processes are.

The information required to calculate ratios is derived from the accounts. Most ratios require information from the balance sheet, but some require information from your profit and loss statement or cash flow statement

Profitability

The most important objectives for the business and, arguably therefore, the most important ratios, are those concerned with profitability.

Gross profit margin

Any business needs to ensure that its gross profit (that is, the revenue less the direct costs) is sufficient to cover all the overhead costs and to generate a net profit. This ratio is unlikely to be helpful to BMOs unless they are selling services as well as seeking grants and subscriptions. The gross profit margin is simply the gross profit expressed as a percentage of sales:

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{sales}} \times 100\%$$

Net profit margin

The net profit is what is left after all the costs (except interest and tax) have been deducted. The net profit margin is the net profit (using profit before interest and tax – PBIT) expressed as a percentage of sales.

$$\text{Net profit margin} = \frac{\text{PBIT}}{\text{sales}} \times 100\%$$

Return on capital

Some funders will want to know the return on the capital employed – and this will be of interest to the owners or shareholders as well. It is unlikely that this will be of use to most BMOs, but is shown for completeness

$$\text{Return on capital employed} = \frac{\text{PBIT}}{\text{Capital employed}} \times 100\%$$

Capital employed is found on the balance sheet, though may require the addition of some individual entries. It is usually defined as equity plus long term debt. Remember that a balance sheet is a snapshot of the financial position, so use the average for the period to which the PBIT relates. Published accounts always show the previous period's figures for comparison. If for any reason, this is not possible, using the figure on the available balance sheet will give an approximation.

Liquidity ratios

Current ratio

A business should always have enough current assets (eg stock, work in progress, debtors, cash in the bank and so on) to cover current liabilities (eg bank overdraft, creditors and so on). Liquidity ratios indicate the ability of the business to meet liabilities with the assets available. The current ratio shows the relationship of current assets to current liabilities.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

This ratio should normally be between 1.5 and 2. Some people argue that the current ratio should be at least 2, on the basis that half the assets might be stock. A ratio of less than 1 (that is, where your current liabilities exceed your current assets) could mean that you are unable to meet debts as they fall due, in which case you are insolvent.

Quick ratio

A stricter test of liquidity is the quick ratio or acid test. This ratio measures your ability to meet short-term liabilities from liquid assets such as cash. Some current assets, such as work in progress and stock, may be difficult to turn quickly into cash. Deducting these from the current assets gives the quick assets.

$$\text{Quick ratio} = \frac{\text{Current assets - stock}}{\text{Current liabilities}}$$

The quick ratio should normally be around 0.7-1. To be absolutely safe, the quick ratio should be at least 1, which indicates that quick assets exceed current liabilities.

Defensive interval

Some businesses, and banks in particular, find it helpful to calculate the 'defensive interval'. This is the best measure of impending insolvency and shows the number of days the business can exist if no more cash flows into the business.

$$\text{Defensive interval (days)} = \frac{\text{Current assets - stock}}{\text{Daily operating expenses}}$$

The daily operating expenses are best determined from the cash flow statement – take the total payments for the year and divide by 365 – as you are interested in how long the business can survive based on its need to spend cash. If the cash flow figure is not easily available, you can make an approximation by taking figures from the profit & loss account - take total expenditure, add interest and deduct depreciation – and make a stab at adding net loan repayments estimated from the balance sheet.

Solvency

If the net worth of the business becomes negative, that is, the total liabilities exceed total assets, then the business has become insolvent. In other words, if the business closed it would not be possible to repay all the people who are owed money.

Gearing

One ratio which gives an indication of solvency is the gearing. Many businesses, as they grow larger, set a gearing objective and the banks aim to keep the gearing low in businesses to which they lend.

Gearing is normally defined as the ratio of debt (i.e. loans from all sources including debentures, term loans and overdraft) to the capital employed. The higher the proportion of loan finance, the higher the gearing.

$$\text{Gearing} = \frac{\text{Total debt}}{\text{Capital employed}}$$

Although capital employed is a balance sheet figure, it is the gearing at a specific time that is important. You should, therefore, simply take the equity and debt figures from the most recent balance sheet.

Efficiency ratios

Efficiency ratios provide a measure of how much working capital is tied up, indicates how quickly a business collects outstanding debts and pays creditors and shows the effectiveness of the business in 'sweating' its assets. They are one measure of the effectiveness of the management.

Debtors' turnover ratio

Businesses will be particularly keen to monitor how quickly their debtors pay them.

$$\text{Debtors' turnover ratio} = \frac{\text{Sales}}{\text{Average debtors (ex VAT)}}$$

As with other balance sheet items, the ideal is to use the average debtors for the period. If you don't have a debtors figure for the start of the period, an approximation is given by dividing the sales by the debtors at the end of the period.

Knowing how long it takes to collect monies owed is helpful, particularly if you have a target of, say, 30 days. Dividing the debtors' turnover ratio into the days of the year gives the average collection period in days.

$$\text{Average collection period} = \frac{365 \times \text{debtors (ex VAT)}}{\text{Sales}}$$

Creditors' turnover ratio

Monitoring how long it takes to pay suppliers is as important as knowing how long customers take to pay. If suppliers have to wait too long, they may withdraw credit facilities.

$$\text{Creditors' turnover ratio} = \frac{\text{Cost of sales}}{\text{Average creditors (ex VAT)}}$$

$$\text{Average payment period} = \frac{\text{365 x creditors (ex VAT)}}{\text{Cost of sales}}$$

It is normal to use cost of sales, that is, the direct costs, in calculating the average payment period when comparing the performance of different businesses.

Limitations of ratio analysis

Ratio analysis is a very useful way to interpret accounts. However, there are several limitations, particularly when it comes to comparing the performance of different businesses.

- Inconsistency: When comparing ratios with other businesses, it is not always possible to know whether the same accounting methods have been used. Examples include methods of depreciation and stock valuation where different businesses may use different techniques.
- Inflation: When ratios are used to assess trends over a number of years, fluctuations could be due to inflation levels rather than performance. This could result in misleading figures, so adjustments should be made to reflect the rate of inflation in the periods being considered.
- Subjectivity: Conclusions drawn from accounting information will reflect judgements made by the people who prepared it.
- Imprecision: Some of the figures needed may not be available, so alternatives will be used that are less precise.

Conclusion

An understanding of all the financial statements is important for maintaining effective control of a business. Using ratios to set targets and then to monitor performance will assist in determining the financial position of a business. Ratios can be used to monitor whether the business is on target and are also useful in making comparisons with competitors and with previous performance

Not every business will wish to use all the ratios described, and some may need others, but all will benefit from keeping a close eye on gross profit margin, net profit margin and quick ratio. If the business achieves these, it will almost certainly keep within its cost targets and achieve its return on capital targets.