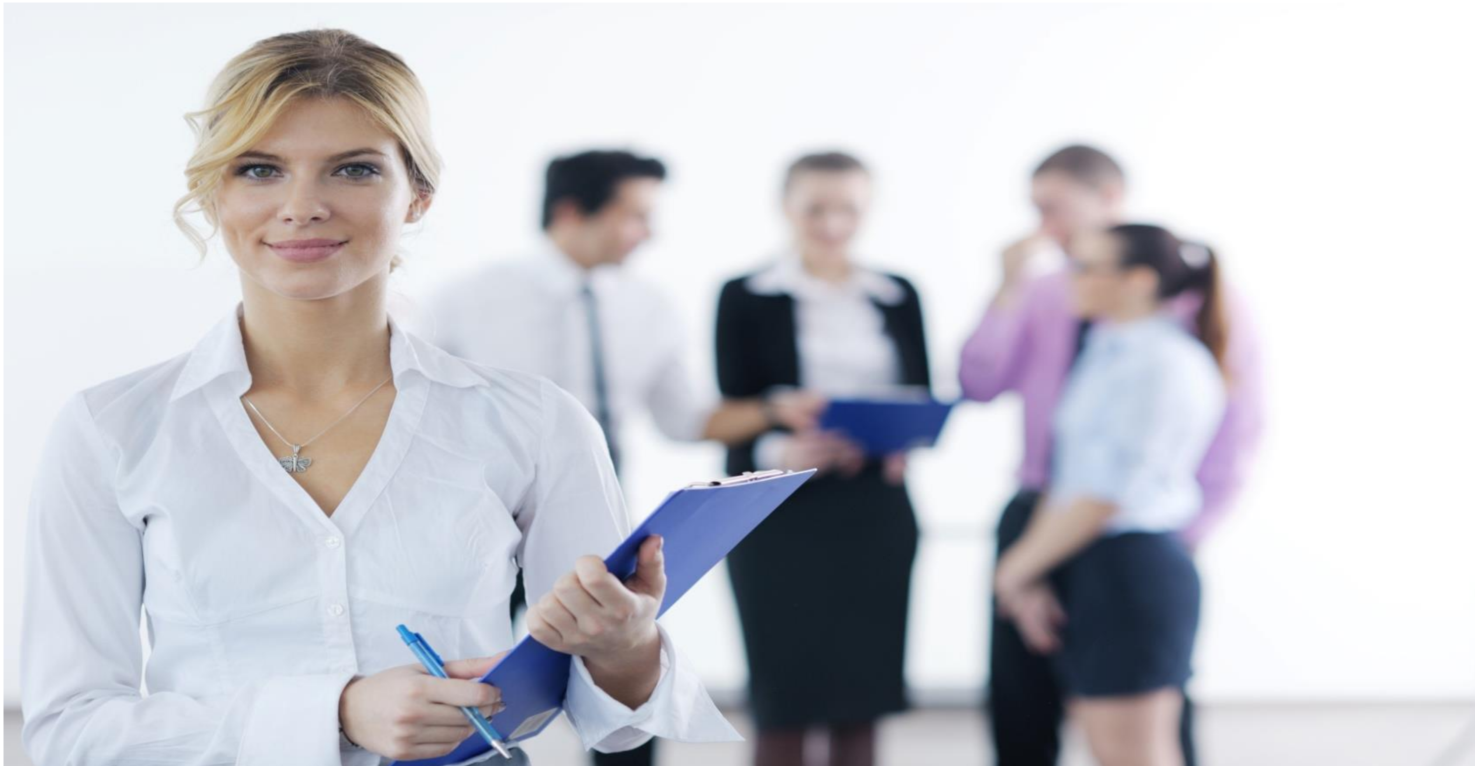

Unit 2

Monitoring and Managing Budgets

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Prepare a budget of any type or size
- ✓ Get your budget approved
- ✓ Perform basic ratio analysis

Unit 2

Monitoring and Managing Budgets

In the chart below, record how budgets are monitored and managed in your organization. List the advantages and disadvantages of each method.

Method	Advantages	Disadvantages

Crunching the Numbers

Understanding Ratio Analysis

If you understand simple ratio and proportion analysis, you can get more information and exercise more control over departmental expenses. You can also use ratios to do final reality checks over your budgets by comparing your budgeted ratios to actual ratios from prior periods.

Ratio analysis sounds intimidating but it isn't. Ratios are simply numbers that let us compare. For example, if your car gives you 20 miles to a gallon of gas, and the new SUV you are looking at gives you 10 miles per gallon, you have just done a ratio analysis to compare the operating costs of the two vehicles.

Ratios measure relationships between particular numbers. By periodically plugging figures from your company's two central financial records (the profit and loss statement and the balance sheet) into certain simple ratio equations, you will be able to track certain aspects of the business. Ratios also enable you to compare one company against industry standards.

Sample Balance Sheet

Acme Widgets Inc. Balance Sheet For the Month Ended February 28, 2020			
Assets		**Equity**	
Cash	$2,500	Owner's Capital	$5,000
Accounts Receivable	7,500	Cumulative Net Income	3,300
Supplies	1,500	Less Withdrawals and Dividends	(1,300)
Total Assets	**$11,500**	**Total Equity**	**$7,000**
Liabilities			
Accounts Payable	$500		
Notes Payable	4,000		
Total Liabilities	**$4,500**		

Additional Facts and Figures

- Gross Sales: $22,000
- Net Sales: $17,000
- Gross Profit: $15,000
- Net Profit: $10,500

Current Ratio

This is possibly the most common ratio used in the business world. It's usually presented like any other ratio, with two numbers separated by a colon. This ratio compares assets to liabilities – in other words, what the company owns vs. what it owes. This can give you a quick picture of the health of a company.

The formula for current ratio is:

$$\frac{Current\ Assets}{Current\ Liabilities}$$

So if we used the numbers from our sample balance sheet, we could calculate that Acme Widgets Inc. has a current ratio of about 2.6:1.

A current ratio of about 2 is considered adequate for most businesses. If a business has a relatively unstable cash flow, however, it might be necessary to maintain a current ratio of more than 2.

Quick Ratio

This ratio is very similar to Current Ratio, except that it removes inventory from the calculation of assets, on the assumption that inventory is harder to liquidate than other assets. Anything above 1.5:1 is considered acceptable.

The formula for the quick ratio is:

$$\frac{Current\ Assets - Inventory}{Current\ Liabilities}$$

Debt Ratio

The equation for debt ratio looks like this:

$$\frac{Liabilities}{Assets}$$

You can then multiply the result by 100 to get a percentage.

Take the business example of Acme Widgets. It has $11,500 in assets and total liabilities (current pus long-term) of $4,500. So, for this business, the debt ratio is about 39%. This is a very stable situation – Acme Widgets probably wouldn't have any trouble borrowing money from the bank, and its shareholders would probably be comfortable with this percentage of debt.

Net and Gross Profit Margin

These two ratios measure the amount of money that the business earns as a percentage of overall revenue.

Gross profit margin takes into account only the cost of making the product or service. Therefore, its equation looks like this:

$$\frac{Gross\ Profit}{Gross\ Sales}$$

The net profit margin shows what the business has earned after selling its products and paying all expenses – the true bottom line. Its equation is:

$$\frac{Net\ Profit\ (After\ Interest\ and\ Taxes)}{Gross\ Sales}$$

The results of both equations are expressed as a percentage.

Return on Sales Ratio

Return on Sales Ratio allows a business to determine how much net profit was derived from its gross sales. This ratio is very similar to the Net Profit Margin but it factors in all expenses, including interest.

$$\frac{Net\ Income\ (Before\ Interest\ and\ Taxes)}{Gross\ Sales}$$

This ratio tells us whether expenses are under control and whether the business is actually generating enough revenue to pay for its costs. The higher the Return on Sales Ratio, the better it is for the business.

Debt to Net Worth Ratio

Debt to Net Worth Ratio indicates the relationship between a business' net worth and the debt which a business carries. It can be calculated with this formula:

$$\frac{Total\ Debt}{Net\ Worth}$$

The result of this calculation is an indication to banks and other creditors whether a business can handle additional debt. It is a determination of risk, where a high debt ratio can indicate that the business is carrying a lot of obligation and likely to be hampered in borrowing any additional money. Too low a ratio, however, may indicate that a business is too conservative and could effectively borrow more money to generate more profits. When the ratio is higher than 1, it is an indication that there is too much debt for net worth.

Cash Turnover Ratio

Cash Turnover Ratio provides an indication of how often cash flow turns over to finance your sales. It can be calculated with this formula:

$$\frac{Gross\ Sales}{Current\ Assets - Current\ Debt}$$

When your cash supply is tight, you are having trouble meeting obligations related to business operations like salaries, utilities, paying suppliers, and purchasing inventory. Generally, your cash turnover ratio should be between 4 and 7.

Collection Ratio

Collection Ratio shows the number of days it takes for your business to get paid for sales where you are providing credit.

Here is the formula:

$$\frac{Accounts\ Receivable\ x\ 365}{Gross\ Sales}$$

This figure should be near the point at which you declare an account overdue. Too long a period means that you are overextending your credit and basically becoming a banker for your slow-paying customers. The period should be no more than 1.5 times your credit overdue period.

Investment Turnover

Investment Turnover Ratio shows the ability of your business to use its assets to generate sales income. Calculate it with this formula:

$$\frac{Gross\ Sales}{Fixed\ Assets}$$

A good indicator of the strength of your business is your ability to generate more and more sales from a stable asset base. If the ratio is declining, it can indicate that the growth of the business is not being met with a matching growth in sales proportionate to your investment in assets. In general, the higher the ratio, the stronger the business.

Return on Investment

Return on Investment analysis provides a clear indication of business profitability. It shows how much profit a business is able to generate in proportion to its net worth.
The formula is:

$$\frac{Net\ Profit}{Net\ Worth}$$

This figure shows what level of actual return you are getting on the money which you have invested in your company. Unless you are actively working toward a healthy return on your business investment, your business has little chance to grow and thrive. A respectable goal is to aim for a 12% return in order to remain healthy and viable.

Text your Knowledge

Calculate the current ratio based on the financial information that you brought to the workshop.

Now, choose three additional ratios and calculate them.

Ratio	Result

Getting Your Budget Approved

At some point, you will have to build a case to support your budget and present it. Or, you may need to participate in a full-fledged budget review. Engage participants in a discussion of what happens in your organization.

Building a business case is worth a workshop all on its own, so we won't have time to go through the entire process here. However, we do have a few tips to help you create a powerful presentation to get your budget approved.

Know what to expect.

Get as much information about the presentation as you can.

- When and where will it be held?
- Who will be there?
- Who else will be presenting?
- What do they expect? (Handouts, summaries, graphs, etc.)
- What format should your presentation be in? (PowerPoint presentation, speech, overheads, etc.)
- What do you need to bring? (Tip: Always bring extra copies of handouts.)

Make sure you provide what they expect.

Double-check your budget to make sure it's in the proper format and that all of the elements in the budget package are complete. Make sure that you don't need to complete anything else for your presentation.

Be prepared.

Your presentation should cover the basic points of your case. However, you should also have a well-organized notebook or electronic document handy with all the supporting information. (Another method is to create extra slides in PowerPoint and keep them hidden unless you need them.) This way, you won't overwhelm your audience, but you'll be prepared for tough questions.

Stay calm.

When presenting, go slowly. Pause frequently and ask for questions. Most people have a tendency to talk faster when they are nervous, so make a conscious effort to slow your speech down. If you're presented with a tough question, take a deep breath and collect your thoughts. Don't be afraid to ask for a moment to gather that information – although it shouldn't take too long if you have a document already prepared with extra information. If you don't have the answer, tell the committee the truth – and let them know when they can expect the information.

Do a mock presentation.

Find someone that you trust to give you constructive criticism. Do the entire presentation just the way you will for the budget committee. Ask your judge what things went well and what things you could improve on. In the end, would they approve your budget?

Comparing Investment Opportunities

Every day, senior management must evaluate investment opportunities (such as an opportunity to build a new plant or to purchase new equipment). Big decisions require information, and information is based on planning. This is capital budgeting. Cash is always sacred so every project requires a thorough analysis to see if it is feasible, and ultimately profitable to the company.

Payback Period

Generally an investment in new equipment or a new plant will result in a net cash flow (through a decrease in annual operating costs). The payback period is the time it takes to recover the initial investment through this net cash flow.

Example:

Cost of machine	$16 000
Annual net cash flow	$3,500

Over a period of 4.6 years this machine will have paid for itself. This is based on the budgeted annual operating costs being accurate and shows how important an accurate budget is. In choosing investment opportunities, a short payback period is desirable. The shorter period also reduces the risk of premature obsolescence as well as changes in the business environment that may reduce the usefulness of the purchase.

Break-Even Point

Identifying the break-even point for a particular project is a good way to evaluate whether or not a new idea has the ability to make money. The formula is:

$$Break\ Even\ Point = Fixed\ Costs + Variable\ Costs$$

Fixed costs are those that remain the same regardless of the level of production, like rent or office equipment. Variable costs encompass the materials and labor required for the product. These items are used more or less depending on how much product is produced.

Let's say that you want to make a new kind of gadget. The fixed cost for each gadget will be $50. The variable costs will be $5.56 for each gadget. The break-even sales point, therefore, is $55.56. Selling your product for any less than this would result in a loss.

Cost-Benefit Analysis

Another type of analysis that can be as simple or complex as required is cost-benefit analysis. This allows you to compare what an opportunity will cost versus the expected payoff.

Let's say that you're trying to decide between two robots to help you make widgets.

	Robbie the Robot	**Rachel the Robot**
Widgets Produced Per Hour	75	60
Value of Widgets Produced Per Hour ($5 sale price each)	75 x 5 = 375	60 x 5 = 300
Cost of Units Produced	75 x 1.5 = 112.50	60 x .25 = 15
Total Value – Total Cost = Estimated Benefit	375 – 112.50 = **262.50**	300 – 15 = **285.00**

Initially, Robbie seems like the better choice if we just look at how many widgets produced per hour. However, Rachel has an overall better benefit, and therefore seems to be the better buy.

Return on Investment

This calculation enables you to see what a particular investment has returned, giving you a percentage that easily allows you to see how this investment has performed. The basic equation is:

$$\frac{Payback - Investment}{Investment}$$

The result is then expressed as a percentage, which gives you the return on investment.

Let's say that you put $100 into a savings account. Over a period of 20 years, you got $10 back in interest.

$$\frac{110 - 100}{100}$$

Your return on investment, then, is 10%. Please note that when performing this calculation in the real world, there can be many other factors affecting it and therefore complicating it. This is only the basic formula.

ISO 9001:2008

What is ISO 9001:2008?

"Say what you do and do what you say," is the oft-quoted slogan that epitomizes the ISO philosophy. Originating in Europe, ISO (International Organization for Standardization) came across the Atlantic in the late 1980's and has developed firm roots in North America. Its goal is to offer international standards for various types of businesses, including manufacturing and government agencies. Their standards are updated periodically, so it's important to make sure that you have the latest information.

A main motivation for engaging in the ISO certification process is to measure up to your customers' quality standards and to keep them happy, or at least keep them. ISO 9001:2008 is extremely customer focused, and that can be justification alone for committing the energy and the resources to the process.

ISO 9001:2008 is a structured process through which a company can raise the quality of the products and services it provides, and then maintain that level. This is the set of standards that outlines the structure for quality management systems, customer-related processes, product design and development, purchasing processes, production and service processes, and continuous improvement.

If your company is ISO certified or plans to become certified, make sure you are familiar with the standards as they can greatly impact how your budget is prepared and what it contains.

Test your Knowledge

Company One

Peerless Data Corp. is a service organization. Its main service is providing information on companies and organizations of every size and type. Each regional office serves as a center for collecting and processing data. Information is collected from field reporters, credit agencies, the companies and their customers, and various research sources. All of this data is then organized and processed and eventually packaged in its own file. Your office is therefore involved in producing research files as efficiently as possible. Each office operates as a profit center with the Operations Director making all decisions independently.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Company Two

Acme Widgets is a manufacturing company. It has seven employees right now, although it plans to triple that in the next five years. They have one manufacturing plant that delivers to wholesalers.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Company Three

Super Training has a thousand employees. They deliver computer training worldwide to Fortune 500 companies. Their business is based on contract work. However, they only deal with the training departments of the individual companies; they don't provide the training themselves.

Does ISO 9001:2008 make good sense for this organization?

Why or why not?

What benefits might this company see?

Further Reading:

- ✓ *Dickey, Terry. Basics of Budgeting (2nd Edition). Axzo Press (Crisp Series), 2010.*
- ✓ *Kemp, Sid. Budgeting for Managers. McGraw-Hill, 2003.*
- ✓ *Ritter, Johannes, and Frank Röttgers. The Definitive Guide to Getting Your Budget Approved. Solution Matrix, 2009.*