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A Primer on Financial Basics

LEARNING PROFESSIONALS who lack basic business skills are at a distinct disadvantage. A poor comprehension of business issues and the complexities associated with the business world prevents us from seeing how our efforts fit into the organization or how they are valued. It is time we took control of our situation and answered the call to action: the call to demonstrate the impact learning can have on the business. Financial and nonfinancial performance measures are increasingly sought after by senior management, and this places training and development (T&D) professionals and their departments on the cusp of playing a crucial role in helping their organizations meet their objectives. Learning professionals are being asked to contribute directly to attaining strategic objectives, and to translate these objectives into learning-oriented solutions. To meet this challenge and opportunity as a learning professional you must

1. Gain the business knowledge to serve your organization adequately.
2. Know the business knowledge you need to know.

3. Know the information relevant to your efforts.
4. Know how to communicate the right information to those requiring that information.

As a learning professional you do not need to be fluent in the language of business, but if your T&D work is to be effective, it is essential that you be able to accomplish three things when speaking with your business associates. You should be able to

- Discuss how your training solutions affect the business results of your T&D department.
- Understand the implications and impacts your training efforts have for the whole organization.
- Communicate outcomes to the right people, in the right way, and at the right time.

Business can be a complicated and even confusing topic, especially for those not required to answer questions about operational and strategic business issues in the past. Training and development is one of those areas that traditionally has not had to account for its actions and activities. This situation did not leverage the real capacity of T&D. Today there is more opportunity for T&D to contribute to an organization's focus on the bottom line and a strategic vision.

The days when T&D was a passive voice are over. Every dollar budgeted and spent in a company must be accounted for in some way. This requires that all employees, including T&D people, have a clear understanding of business objectives and be capable of proposing and reporting investment initiatives. T&D now has to justify the resources it requires and must communicate its needs and results in a clear and concise way that is understood by the decision makers in the company. This is an opportunity for T&D to become a real strategic business partner to all parts of the organization. It is important for learning professionals to understand the term *strategic business partner*, as it requires a shift in thinking. Rather than maintaining the traditional, passive, functional role of waiting for requests to develop training solutions, T&D must align itself as an operational partner to other departments, becoming a proactive organizational member pursuing internal opportunities to improve the organization and propel it toward its goals.

The intent of this chapter is to prepare you to gain knowledge and an understanding of the essential principles in business financial management. What you need to know, understand, and communicate to decision makers is crucial to your efforts to build a lasting and results-driven learning culture. In short, this chapter is designed to encourage you to start talking the language of business.

In this chapter you will learn

- Why T&D needs to understand business
- The vocabulary used daily in business
- The types of financial statements and analyses
- How to conduct an analysis of your financial results

This is information you need to know to communicate effectively with peers and senior managers.

Why T&D Needs to Understand Business

Management is focused on results and performance, and T&D has an opportunity to support this focus. Only in recent years has T&D been given the opportunity to step up and contribute in a leadership role. Previously, management did not recognize or understand how to leverage the capability existing within T&D. The work of T&D was used to support the integration of new employees or to meet employee job skill development needs. Performance was never seen as part of training's focus or responsibility. But these perceptions are changing. Companies are under increasing pressure from shareholders who seek accountability for every dollar invested in the organization. The training community must prove that employee development is directly correlated with organizational performance.

Management's focus is to ensure the company maximizes profits through sound strategic decisions and improved performance. In managers' minds training is about making employees knowledgeable about immediate job requirements as quickly as possible. Any other skill or ability not directly related to the organization's objectives is considered inessential. This attitude continues to exist, but it is slowly changing as T&D proves its worth by linking its efforts directly to business results.

T&D has an opportunity to be an integral part of the new business imperatives for organizations. Improved performance is at the center of every business decision,

and employee performance is seen by management as a way to develop a sustainable competitive advantage. In many organizations learning and performance is now either at the top of management's to-do list or is gaining attention.

Business accountability is critical, and the impact of every business investment is witnessed through the company's financial statements. Why are financial statements so important? Because they are the universally accepted method by which management can show tangible and proven results. These results, when described in an acceptable financial context, reflect the direct relationship between the inputs and the eventual outputs of a given event or investment.

► **T&D'S GROWING ROLE AT A SOFTWARE DEVELOPMENT COMPANY**

VEHD Inc. is a (fictitious) software development company that specializes in creating innovative help desk tutorials and assessment systems. VEHD has seen exponential growth and gained a reputation of being a market innovator. The company has grown from a start-up with a staff of 25 twelve years ago to having 1,000 employees today. Revenues peaked at \$195 million four years ago and have been slowly decreasing. Training and development has never been a strong component of the company, as management always tried to hire the skills required. Teresa, CEO of VEHD, is strategically focused and understands market demands. She expects results from her management team and also expects employees to be current in their skills and roles.

Teresa quickly recognized that the company was losing focus and innovative capability. As revenues began declining she held a meeting with her senior management team to better understand what was happening to the company. Adam, the chief financial officer (CFO), did not think it was a result of poor salaries, because they had a generous compensation and benefits package. Eddie, the chief operating officer (COO), said that he felt that employee skills were adequate in the last few years but that recently performance and quality had been decreasing. Teresa knew they were right. She proposed to develop a solution that would incorporate skills improvement, innovation capability, and quality assurance aspects. She turned to Marelene, VEHD's director of learning and performance, and asked her to conduct a needs assessment and skills gap analysis and to submit a proposal that would link the outcomes to the company's objectives.

Marelene accepted the opportunity but faced a dilemma. She and the training department had been responsible solely for skills and job training. Now she was in a position to contribute to the company's objective and prove training's worth, but she did not know where to start, and she wondered what Teresa and the senior management team would want to see.

Marelene was in a quandary. She knew senior management was very serious about getting the company back to the position it was in four years ago, so she was aware that her solution had to meet the company's specific needs. Marelene decided that her next step was to interview the management team members to gather more data on what they expected from her solution.

She met first with Teresa, to learn about her priorities for the company. Teresa stated three critical goals for VEHD to achieve:

1. Be less defensive in sales, increase net profits, and gain back the market share VEHD had lost in the last few years.
2. Identify the key competencies for the essential customer support and sales jobs, and provide training to ensure that all skills were at a standard performance level.
3. Ensure that customers received quality products and proper support and service.

Marelene then met with Adam, the CFO, and learned that he wanted to see that the suggested solution proposed a clear budget and provided specific financial targets and measures to meet the company's needs. Adam was interested in seeing whether Marelene's proposed solution would provide the company with a proper return on investment, increase its net profit, and help it make effective use of the financial resources available. The next person Marelene met with was Eddie, the COO. Eddie's concerns were making sure that operations and production would not be affected by the demands of training, and he wanted to see an increase in efficiency and production output. Eddie also wanted to see more efficient use of equipment and other assets in company operations.

Marelene now felt that she had a starting point. She knew that she had to include result statements that were written with this kind of specificity: "We can expect sales to increase by 15% in 6 months; product defects to decrease by 45% in the next 12 months; customer complaints

to be reduced by 10% in 60 days.” She decided to compile this information and returned to her office to begin developing a solution. There were some issues mentioned by the management team that were new to her, especially Adam’s and Eddie’s requests. ◀

The Daily Vocabulary of Business

Business and financial terms are commonplace in every company. It is important that you learn and understand the basic business terms so you can communicate clearly and precisely with your peers. As the role of learning and performance grows and becomes an integrated component for management and its strategic business decisions, it is essential for learning professionals to possess a fundamental comprehension of business terminology and be financially literate.

Exhibit 1.1 presents business terms used regularly in companies and also used in this book (it is not intended to be an exhaustive list, however).

Exhibit 1.1. Common Business and Financial Terms

Account fiduciary	Person or company entrusted with assets owned by another party (beneficiary). The fiduciary is responsible for investing the assets until they are turned over to the beneficiary.
Asset	Anything that can generate cash. Examples are accounts receivable (money that customers owe), inventory (stock or merchandise), equipment (furniture, fixtures, machinery, delivery trucks), and anything else that can generate cash.
Audit	Inspection and verification of financial accounts, records, and accounting procedures.
Balance sheet	Financial statement showing assets on the left side and liabilities on the right. A balance sheet provides an overview of a company’s financial position at a given time.
Break-even point	Volume of sales or revenues at which total costs equal total revenues. Sales above this volume generate profits.
Budget	A forecast of revenues, costs, and expenses for a specific period of time, usually a one-year period.
Capacity	Ability to repay a debt.
Capital	Money available to invest out of the total accumulated assets available for production.

Exhibit 1.1. Common Business and Financial Terms, Cont'd

Cash flow	The actual movement of cash. It measures cash inflow minus cash outflow.
Cash flow projection	A forecast of the cash (checks or money orders) a business anticipates receiving and disbursing during the course of a given span of time—frequently a month. It is useful in anticipating the cash position of a business at specific times.
Cost of goods sold	Used interchangeably with <i>costs</i> and <i>COGS</i> , this is the total cost to produce a specified amount of finished product.
Current ratio	Current assets divided by current liabilities. This ratio should be 1.0 or greater for liquidity. If it drops below 1.0 the ability to pay bills is impaired. If it is greater than 1.0 there is a possibility that assets are not being used efficiently to generate new revenue.
Debt-to-equity	Total debt divided by total owner's investment. This ratio compares amount of assets acquired by debt to amount of assets acquired by owner's funds. If the ratio is greater than 1.0, it means more of the money to acquire assets came from outside sources, and the company needs to monitor its sales level closely to ensure its ability to service this outside debt.
Depreciation	Decrease in the value of equipment from wear and tear and the passage of time. Depreciation on business equipment is generally deductible for tax purposes.
Expense	Any cost. An <i>expense account</i> is an account used for travel and entertainment costs (often by salespersons or executives).
Fiscal period	A defined accounting period. The length of the fiscal period may be a month, a quarter, or a year.
Fiscal year	Any twelve-month period used by a company or government as an accounting period.
Fixed cost	Any cost of production that does not vary significantly with the volume of output.
Fixed expense	Any cost not related directly to the production of a product or service. Indirect costs include such things as rent, insurance, basic utilities, and basic telephone service.
Grace period	Time allowed a debtor in which legal action will not be undertaken by the creditor when payment is late.
Gross profit	Sales minus cost of goods sold. The total dollars available to cover general and administrative expenses such as utilities, advertising, rent, and so forth. <i>Gross profit</i> is also called <i>gross margin</i> .

Exhibit 1.1. Common Business and Financial Terms, Cont'd

Gross profit percentage	Gross profit divided by total sales. The percentage of every dollar earned that can be used to pay general and administrative expenses.
Income and expenses	Accounting motion picture; the inflow versus the outflow of money.
Income statement	Reveals the overall profitability of the company. It displays the total of what the company earns (sales and revenue) less the costs of producing the product (COGS) and the costs of operation (expenses and overhead). It accounts for all expenses.
Liabilities	Accounts payable (money owed to suppliers) plus all current costs of doing business (mortgage payments, insurance, taxes, salaries, utilities, and so forth).
Lien	A legal claim on the property of another party; the property may be sold or applied to payment to satisfy the underlying debt.
Liquidation	Sale of the assets of a business to pay off debts.
List price	Price at which manufacturers recommend retailers sell a product. The list price is often reduced at the point of sale by the retailer to promote sales.
Loss leader	Merchandise sold by a retailer at a loss in order to increase store traffic and sales of other items.
Marginal cost	Additional cost (or lower cost) associated with producing one more (or one less) unit of output.
Market share	A company's share or percentage of customers or potential customers out of the total customers for a product or industry.
Overhead	Business expenses not directly related to a particular good or service produced. Examples are insurance, utilities, and rent.
Preferred lenders	Banks that have a written agreement with the Small Business Administration (SBA) that allows them to make a guaranteed SBA loan without prior SBA approval. Preferred loans have a maximum SBA guarantee of 80 percent. (Call SBA district offices for more information.)
Profit sharing	Compensation arrangement whereby employees receive additional pay or benefits when the company earns or increases profit.
Pro forma	A projection or estimate of what may result in the future from actions in the present; estimate of how the business will turn out if certain assumptions are achieved.

Exhibit 1.1. Common Business and Financial Terms, Cont'd

Profit and loss statement	A detailed earnings statement for the previous full year (if the company is currently in business). Existing businesses are required to show a profit and loss statement for the current period to the date of the balance sheet.
Quota	The quantity of goods of a specific kind that a country permits to be imported without restriction or imposition of additional duties.
Revenues	The income of the company from the sale of its principle product or service.
Spreadsheet	Table of numerical data in which columns and rows are related by formulas.
Working capital	The amount of money a company requires to operate efficiently in the short term.

Marelene did some research on the terminology that her colleagues used during her interviews with them. Not having a financial background she had limited knowledge of net profit and budgets. What worried her more was determining how her solution would increase net profits and how to measure the use of financial resources, as Adam had requested. She also had to address Eddie's need to ensure the efficient use of the company's equipment and other assets.

Her research was fruitful. Marelene discovered the terms she needed to incorporate into her proposal and the measures that would meet the needs of Teresa, Adam, and Eddie. She noted the following as a reminder to herself about what she needed to include in her proposal:

- *Return on investment.* Provide a complete account for the financial requirements for the project. Show the team the returns the company can expect by investing this money, both in financial terms and in intangible benefits.
- *Net profit.* Develop an operating forecast that demonstrates the impact the solution will have on the company's net profit.
- *Return on assets.* Clearly show to Operations how the equipment and assets of the company will improve as employee skills improve. Calculate the financial measure to prove the increase in the use of the assets.

- *Forecasts.* Develop various scenarios of the impact of the proposed solution on VEHD.
- *Budget.* From the most realistic forecast develop a budget for the project.

Marelene also discovered that if she were to do all this effectively she would need to gather the company's financial statements and conduct a proper analysis. But how would she go about doing this? Where would she begin? Analyzing financial statements had never been a requirement for developing training solutions in the past. Marelene decided to set up a meeting with the finance department to learn more about the financial indicators and measures important to management and the organization. Finding the areas where T&D could have an influence would give her a better understanding of the issues affecting the company. She realized that this would also put her in a stronger position when speaking with the management team.

To understand her company's current financial framework and eventually arrive at financial outcome statements to include in her proposal, Marelene had to begin with the basics. Similarly, it is important for you to understand these terms and concepts as you prepare budgets, and it is also vital that you demonstrate results and strategic impact in your training proposals.

Types of Financial Statements and Analyses

As I mentioned at the beginning of the chapter, the most tangible method of determining the impact any investment has on a business involves the dreaded F-word—financial statements.

Financial results are reported according to one of two methods, depending on the context in which the results will be used. The financial statements we usually see report historical financial results; these are also the results reported to shareholders in a public company. The financial reports developed for internal use by management are budgets and forecasts, also referred to as *pro forma statements* (or more simply, *pro formas*); they look ahead rather than back.

The budgeting process is a critical step in planning and controlling a company's day-to-day operations. The resulting budgets provide realistic expectations based on specific assumptions. Budgeting is a formal process that matches revenues with

expenses in a future fiscal period. Great effort is made to create accurate and detailed budgets that are fully aligned with the strategic goals of the organization.

A financial forecast is not as restrictive as a budget. Forecasts are used before, during, and even the after the budgeting process. Both financial documents let management look at the future financial performance of the company. What a forecast offers over a budget is flexibility. Management can create a variety of these future scenarios without being restricted to limitations or ensuring that future revenues match with future expenses. These scenarios provide managers with a better understanding of the ways internal and external factors may affect the company.

Financial forecasts and budgets are popular tools with management as they provide justification for undertaking major investments and activities. I will discuss budgets and forecasts in more detail in Chapter Two.

Financial statements are at the heart of companies' reporting process. They provide the information you require to understand past performance. Through an analysis of the financial data reported you will gain a better appreciation of how your efforts affect the company's results. These financial statements are the basis for all financial and many nonfinancial decisions:

- Income statement
- Balance sheet
- Cash flow statement

Whether you are looking at historical financial performance or are building your budgets and forecasts, the structures of the statements are identical.

Let's look at each one in more detail.

Income Statement

It is important that learning professionals understand the components of the *income statement*. Any training activity will have an impact in some way on the results presented in the company's income statement as well as in a T&D income statement. The income statement is important as the sole indicator of profitability. Exhibit 1.2 illustrates the typical contents of an income statement.

The income statement, also referred to as the *operating statement*, is a record of a company's earnings or losses for a specific period. The purpose of the income statement is to summarize the operating activities of the company for a specific period of time. It shows all the money the company earned (sales or revenues) and all the

Exhibit 1.2. Sample Income Statement Format

Revenue

The proceeds that come from sales to customers.

Cost of Goods Sold

An expense that reflects the cost of the product or good that generates revenue. For example, if a loaf of bread costs 50 cents to make, then COGS is 50 cents.

Gross Margin

Also called gross profit, this is revenue minus COGS.

Operating Expenses

Any expense that doesn't fit under COGS such as administration and marketing expenses.

Net Income before Interest and Tax

Net income before taking interest and income tax expenses into account.

Interest Expense

The payments made on the company's outstanding debt.

Income Tax Expense

The amount payable to the federal and state governments.

Net Income

The final profit after deducting all expenses from revenue.

Source: Investopedia, 2006c.

money the company spent (costs and expenses) during this period. The difference between these two totals is the company's net profit (also called *net income* or *net earnings*) for the period. The income statement is prepared in a standardized style. A sample income statement for VEHD is shown in Table 1.1.

Table 1.1. VEHD Income Statement for Fiscal Years 2003 and 2004 (\$000)

	2004	2003
Revenue or sales	\$167,000	\$185,000
Less: cost of goods sold	<u>(60,000)</u>	<u>(66,000)</u>
Gross profit on sales	107,000	119,000
Less: general operating expenses	(38,000)	(45,000)
Less: depreciation expense	<u>(12,000)</u>	<u>(14,000)</u>
Operating income	57,000	60,000
Other income	<u>12,000</u>	<u>15,000</u>
Earnings before interest and tax (EBIT)	69,000	75,000
Less interest expense	(20,000)	(22,000)
Less taxes	<u>(15,000)</u>	<u>(18,000)</u>
Net income (available earnings for dividends)	34,000	35,000
Less preferred and/or common dividends paid	<u>(5,000)</u>	<u>(9,000)</u>
Retained earnings	29,000	26,000

VEHD's income statement shows its revenue and expenditures for the fiscal periods of 2003 and 2004. This is the information necessary for you to understand VEHD's profit position.

The first part of the statement shows the business's revenues. This is the dollar amount of sales that the organization has made in the reporting period identified by the organization. (When T&D is viewed as a profit center, a sale for T&D might be, for example, the designing and deploying of a training solution for a business unit.) The revenue shown on the income statement is based on the actual sales. The

gross profit on sales line shows the difference between the total revenue earned by the company's products less the cost of what it took to produce them. This figure is calculated as follows:

Gross profit on revenue or sales = Revenue or sales – Cost of goods sold.

Cost of goods sold is the cost of producing finished goods and services. Cost of goods sold includes the expense of purchasing raw materials and any labor costs required to produce products. When you subtract the total cost of producing goods and services (cost of goods sold, or COGS) from the revenue generated from selling them (revenue or sales) you arrive at the *gross profit on sales*.

Gross profit on sales reveals the profitability on the core business. Because gross profit is linked directly to the company's core operations, T&D's role is to develop operational learning and performance solutions to help increase the gross profit. Gross profit also reflects management's effectiveness. This is another area where T&D can play an active role in helping management to improve processes and performance.

Inexperienced businesspeople often use the terms *costs* and *expenses* interchangeably, but it is important to note that they do not mean the same thing. Costs are expenditures required to manufacture or produce the company's product or service. For example, if your organization is producing candles, then the wax, wick, and any other item required to complete a candle is considered a cost. An expense, however, is an expenditure not directly related to the creation or production of a product or service. For example, such items as sales salaries and commissions and office salaries and purchases are expenses. This is why the income statement separates COGS from expenses. COGS is usually included only in the income statement of production-oriented organizations. Service-oriented organizations do not generally include a COGS section in their income statement.

Ron, VEHD's company controller, sat with Marelene to review the income statement. He explained to her that sales in the last twelve months (2004) decreased by \$18 million compared to 2003 results. He also quickly pointed out that the cost of goods sold, the cost to produce what was sold, did not decrease as much, only by \$6 million. Marelene believed that even though sales decreased significantly the news of the costs decreasing by much less was good news in comparison. Ron quickly reminded her that costs represent financial resources tied up in the purchase, inventory, and production of the goods VEHD is to sell. He contin-

ued on to explain that the costs should decrease by at least the same amount as the sales. Because Marelene was still somewhat perplexed, Ron decided to use the gross profit formula to clarify for her the comparative impact on the company for the two years:

$$2003: \text{Gross profit} = \$185,000 - \$66,000 = \$119,000.$$

$$2004: \text{Gross profit} = \$167,000 - \$60,000 = \$107,000.$$

$$\text{Reduction in gross profit: } \$119,000 - \$107,000 = \$12 \text{ million.}$$

The next section of the income statement shows the organization's operational activities. Referred to as *operating expenses*, it shows the expenses related to the operations and administration of the organization. All of the company's expenses are accounted for, including *paper expenses*, that is, expenses other than out-of-pocket (cash) expenses. The subtotal is the *operating income*.

Operating income is the company's earnings after deducting its cost of goods sold and its general operating expenses. Operating income does not take account of interest expenses or other financing costs. Operating income is particularly important because it is a measure of profitability based on what the company actually does, the goods or services it produces. In other words, it illustrates whether the reason for which the company exists is profitable. Operating income is calculated as follows:

$$\text{Operating income} = \text{Gross profit} - \text{General operating expenses.}$$

General operating expenses are normal expenses incurred in the daily operations of the business. Typical items in this category are administration expenses, marketing expenses, salaries, rent, and other relevant operational expenses. General operating expenses are often referred to as *overhead*.

Earnings before interest and taxes (EBIT) is also a common term used by management and external investors. It is the sum of operating and nonoperating income (or loss). As its name indicates, EBIT is a firm's income excluding interest and income tax expenses. EBIT is calculated as follows:

$$\text{EBIT} = \text{Operating income (loss)} + (-) \text{Other income (loss).}$$

The company's *net earnings* (also called net income or net profit) figure is also known as the *bottom line*. Net earnings is the amount of profit a company makes after all its expenses and costs are deducted from its revenues. When a company fails to make a profit, it then reports a net loss. Net earnings (or loss) is calculated as follows:

$$\text{Net earnings (loss)} = \text{EBIT} - \text{Interest expense} - \text{Income taxes.}$$

Interest expense refers to the amount of interest a company has paid to its debtors in the current year. *Income taxes* are federal and state taxes based on the amount of income a company generates.

Depending on the company's financial policy, a portion of the net income may be paid to its owners (shareholders). These payments are called *dividends*. The amount remaining after dividends are paid is reinvested in the company for future growth. When no dividends are paid, the total amount is reinvested. The amount reinvested is called *retained earnings*.

The income statement provides management with insights into what monies the company is making and spending. Management must continually improve this performance, and T&D can play an important role in that improvement. Through the income and pro forma statements, learning professionals can better understand the relationship between profitability and performance and use that understanding when developing targeted, performance-oriented learning solutions.

Thinking Like Management

- How can training and development improve the organization's bottom line?
 - What is a proper level of investment in training and development?
 - What impact will an investment in training and development have on the organization?
-

Marelene was quick to point out to Ron that the 2004 net income was not too far off the 2003 results, and she wondered why, then, was there so much concern over this result? Ron agreed with her that the 2004 bottom line was reasonable but explained that this result was due to effective management of the operating expenses. He went on to say that even though the bottom-line result was acceptable, the top line, the sales figures, had to be addressed. The company would need to examine how the cost of goods would be affected if sales were to continue to decline. Ron was eager to point out to Marelene that analyzing past financial performance is a reactionary view of what is happening in a company and that results must also be compared against future expectations [as discussed in Chapter Two].

Balance Sheet

A *balance sheet* shows the value of an organization at specific point in time through what it owns (*assets*), what it owes (*liabilities* or *debt*), and what it has invested (*equity*). The reason this form is called a balance sheet is that the assets of the organization (what it owns) must equal, or balance with, the sum of its liabilities (what it owes) and its equity (what it has invested) (see Exhibit 1.3 and Table 1.2):

$$\text{Assets} = \text{Liabilities} + \text{Shareholders' equity.}$$

This also means that the *owners' or shareholders' equity* is the net worth of the business—what the business is worth after all the liabilities are cleared. (Shareholders' equity is also called *working capital*.)

$$\text{Assets} - \text{Liabilities} = \text{Shareholders' equity.}$$

Exhibit 1.3. Sample Balance Sheet Format

Assets

Current Assets

Cash, accounts receivable, and other assets that can be converted into cash relatively quickly.

Property and Equipment

Not exclusive to equipment and property, it can be more accurately described as long-term operating assets (less depreciation on these assets).

Other Assets

Anything that doesn't fit in the above categories.

Liabilities and Shareholders' Equity

Current Liabilities

A company's liabilities that will come due within the next 12 months.

Long-Term Liabilities

Debt not maturing in the next 12 months. A good example is outstanding bonds that don't mature for several years.

Stockholders' Equity

Reveals how the remainder of the company's assets are financed, including common and preferred stock, treasury stock, and retained earnings.

**Table 1.2. VEHD Balance Sheet for the Period
Ending December 31, 2003 and 2004 (\$000)**

	2003	2004
Assets		
Current assets		
Cash and cash equivalents	\$10,000	\$10,000
Accounts receivable	35,000	30,000
Inventory	<u>25,000</u>	<u>20,000</u>
Total current assets	70,000	60,000
Fixed assets		
Plant and machinery	\$20,000	\$20,000
Less depreciation	-12,000	-10,000
Land	3,000	8,000
Notes receivable	<u>2,000</u>	<u>1,500</u>
Total assets	88,000	79,500
Liabilities and shareholders' equity		
Liabilities		
Current liabilities		
Accounts payable	\$20,000	\$15,500
Taxes payable	5,000	4,000
Total current liabilities	25,000	19,500
Long-term liabilities		
Long-term bonds issued	<u>15,000</u>	<u>10,000</u>
Total liabilities	40,000	29,500
Shareholders' equity		
Common stock	\$40,000	\$40,000
Retained earnings	<u>8,000</u>	<u>10,000</u>
Total shareholders' equity	48,000	50,000
Liabilities and shareholders' equity	\$88,000	\$79,500

The assets of an organization are categorized in two ways: *current assets* and *fixed assets*. Current assets, also referred to as *liquid assets*, are items that the organization can convert to cash without losing value within a period of one year. Simple examples of current assets are actual cash in the bank, product inventory, and accounts receivable. All of these assets are convertible to cash at an equal or greater value within a period of twelve months.

Fixed assets, or *capital assets*, provide the organization with the capacity to carry out its operations effectively. They are not intended to be used for or converted to cash. Fixed assets are items such as equipment and buildings. Organizations are permitted to take account of the decrease in the value of a fixed asset over its predetermined expected useful life (the amount of time that an organization can realize efficient and productive use from the asset). This is called *depreciation*.

An organization's liabilities are also divided into two categories, *current liabilities* and *long-term liabilities*. As with current assets, current liabilities are what an organization owes within a period of one year, whereas long-term liabilities are amounts owed for a period of more than one year. An example of a liability that can fall into both categories is a bank loan. Assume that your organization has an interest-free \$100,000 bank loan to be paid back within a five-year period. The current portion of the loan, what is to be paid within the current twelve-month period, is \$20,000. The balance, \$80,000, is the long-term liability portion.

The last component of the balance sheet is the equity (ownership) section. Shareholders' equity is essentially the sum of the financial investment made in the organization and all retained profits reinvested from previous periods. Reinvested profits (also called retained earnings, as mentioned earlier), are a portion of the net profit appearing at the bottom of the income statement described earlier.

The balance sheet reflects the overall value of the organization. This means that anything that is developed, purchased, and used in the organization will either increase or decrease the value of the organization and this change will be seen in the ending balance sheet.

Thinking Like Management

- How can we reflect the investment in training and development in the balance sheet?
 - How has training and development contributed to increasing the value of the organization?
-

Ron took out the company's comparative balance sheet and began to review it with Marelene. It was clear that she felt intimidated by the statement, and Ron acknowledged to her that the balance sheet is difficult to grasp. Simply put, he explained to Marelene, any investment made in the organization is somehow reflected in the balance sheet. That means that any training directly affecting the company can be seen over time in the balance sheet. For example, if a comprehensive, effective sales training program were to take place, not only would the sales line of the income statement increase but both the cash and accounts receivable sections of the balance sheet would also increase as a result of this more effective salesforce.

Cash Flow Statement

The cash flow statement (the formal accounting name is the *statement of changes in financial position*) is the simplest and most misunderstood financial statement in business. The primary purpose of the cash flow statement is to summarize the sources and uses of the organization's cash during a defined period. Essentially, it answers the questions, Where does the cash come from? and, Where did the cash go?

The cash flow statement is usually divided into three sections (Exhibit 1.4). The first section is the *cash from operations*, which includes the increase or decrease of cash in specific operating activities. The second section, *cash from investing*, is the cash used for the purchase or the disposal of operating equipment or capital assets. The third section is the *cash from financing* and usually includes any borrowings or investments made or the amounts paid to the shareholders and financial lenders. Table 1.3 shows a sample cash flow statement for VEHD.

Exhibit 1.4. Sample Cash Flow Statement Format

Cash from Operations

Cash generated from day-to-day business operations.

Cash from Investing

Cash used for investing in assets, as well as the proceeds from the sale of other businesses, equipment, or other long-term assets.

Cash from Financing

Cash paid or received from issuing and borrowing of funds. This section also includes dividends that are paid to shareholder or investors in the business.

Exhibit 1.4. Sample Cash Flow Statement Format, Cont'd**Net Increase or Decrease in Cash**

Increases in cash from previous year will be written normally, and decreases in cash are typically written in (brackets).

Source: Adapted from Investopedia, 2006b.

Table 1.3. VEHD Cash Flow Statement, 2003 (\$000)**Operating cash flow**

Net income after tax	\$34,000
Depreciation	10,000
Increase in accounts receivable	(5,000)
Increase in inventory	(5,000)
Decrease in accounts payable	4,500
Increase in accrued expenses	0
Total operating cash flow	43,000

Investing cash flow

Purchase of equipment	0
Decrease in notes receivable	500
Total investing cash flow	500

Financing cash flow

Increase in long-term bonds payable	(5,000)
Increase in term loan	0
Total financing cash flow	(5,000)
Total cash flow	\$38,500

Cash at beginning of period	1,000
Cash at end of period	\$39,500

The cash flow statement is constructed using the information from both the income statement and the balance sheet. The first step is to determine operating cash flow. You start with net income and add back any noncash items like depreciation. Then you determine the changes in the balance sheet accounts that are part of the earnings cycle.

The cash flow statement is one of the most important management tools a business can have. Many businesses look to their cash flow statement to tell them what's going on in the business. It tells them how much income they made, whether operations generated cash or used cash, what assets were acquired, and how everything was financed.

CD-ROM RESOURCE

Determining how increases or decreases in assets and liabilities affect your cash flow statement can be complex. Open the "Balance Sheet with Financial Ratios Templates" file on the accompanying CD for a cash flow worksheet that can help you prepare your own cash flow statement.

Thinking Like Management

- What is the actual cash requirement for the training and development initiative?
 - Will the training and development initiative be part of the operating or investment activities?
 - How will the training and development initiative be financed?
-

Marelene obtained copies of VEHD's income statement and balance sheet for 2003 and 2004. After reviewing them she began to understand the concerns of the senior management team. On the income statement she saw a number of items of concern, including a dramatic decline in sales and gross profit. She did notice that the company remained in a healthy cash position. She figured that her proposal needed to budget appropriately and that financing the project would not be an issue if the team believed it would improve the company's current situation.

How to Conduct a Financial Analysis

All business professionals have to account for their activities and investments in terms of specific financial results for the organization, and T&D professionals are no longer excluded. The financial outcomes that you will be measured against are

- Revenue
- Profit and loss
- Costs
- Expenses (variable and fixed)
- Net worth
- Cash flow

What Is Financial Analysis?

Financial analysis is the study of a business's operations through the comparison of various financial components. The ability to analyze and understand financial statements has always been one of the most important skills required by business professionals and now it is important to T&D as well.

Sound financial analysis takes the guesswork out of business management and forms the basis for solid decision making. This analysis will also provide you with the knowledge from which to plan your operations and business activities.

Why Conduct a Financial Analysis?

The financial objectives and performance of your company and your department are built upon past performance and future expectations. These objectives generally fall into three categories: profitability, growth, and liquidity.

Profitability

Profitability refers to a company's return on investment and use of assets. Financial analysis helps managers plan for future profitability through the strategic management of resources.

Growth

Growth in the company and in its departments requires careful planning and additional resources and funding. A financial analysis indicates how much cash a company or department needs to support forecast growth.

Liquidity

Liquidity refers to a company's ability to pay its financial commitments. This requires accurate forecasting of cash inflows and outflows. A financial analysis will show you if your liquidity level is right for your operations.

Any financial analysis is designed to track and compare performance in these three areas—both internally from year-to-year and externally, comparing the company's results to industry performance.

It is a company's financial statements that provide insight into expected results and show the actual impact of every investment. The financial data obtained from the balance sheet and income statement provide a detailed analysis of potential outcomes.

Types of Analyses

Analyzing your company's financial statements involves three distinct types of calculations, referred to as

- Vertical analysis
- Horizontal analysis
- Ratio analysis

Vertical analysis

A *vertical analysis* involves expressing each item on the financial statement as a percentage of a common base for a single fiscal period. Revenue or sales are usually used as the common base. In other words, revenue is assigned a value of 100 percent, and each item on the statement is compared to this total. For instance, the formula for a vertical analysis of the cost of goods sold is

$$\frac{\text{Cost of goods sold}}{\text{Sales}} \times 100$$

Using the data on the financial statement provided for VEHD, the cost of goods sold represents the following percentage of sales:

$$\frac{\$60,000}{\$167,000} \times 100 = 35.9\%$$

The resulting percentage can be compared to the percentage for a previous fiscal period to see if there are any significant or unexpected variations. A company

or department could also compare its performance to industry standards to see how it is doing against comparable business operations or activities.

Table 1.4 displays a completed vertical analysis for VEHD for fiscal years 2003 and 2004. As you can see, the vertical analysis is completed for every line of the income statement. Going into this level of detail allows management and other company professionals to clearly identify the strengths or weaknesses in operations. When you equip yourself with this knowledge, you are better able to resolve poor areas of performance and further develop your strong points.

Table 1.4. VEHD Income Statement for Fiscal Years 2003 and 2004, Vertical Analysis (\$000)

	Variance	Vertical Analysis	2004	Vertical Analysis	2003
Revenue or sales	-9.70%	100.00%	\$185,000	100.00%	\$185,000
Less: cost of goods sold	0.23	35.90	(60,000)	35.67	(66,000)
Gross profit on sales	-0.23	64.10	107,000	64.33	119,000
Less: general operating expenses	-8.25	22.75	(38,000)	31.00	(45,000)
Less: depreciation expense	-0.32	7.18	(12,000)	7.50	(14,000)
Operating income	1.70	34.13	57,000	32.43	60,000
Other income	-0.92	7.18	12,000	8.10	15,000
Earnings before interest and tax (EBIT)	0.81	41.31	69,000	40.50	75,000
Less interest expense	0.10	12.00	(20,000)	11.90	(22,000)
Less taxes	-0.70	9.00	(15,000)	9.70	(18,000)
Net income (available earnings for dividends)	1.45	20.35	34,000	18.90	35,000
Less preferred and/or common dividends paid	-1.80	3.00	(5,000)	4.80	(9,000)
Retained earnings	3.31	17.36	29,000	14.05	26,000

Horizontal analysis (variance analysis)

A *horizontal analysis* is a method of comparing revenues and expenses of the current financial fiscal period with results from a previous period, both in dollar amounts and percentages. This means that you analyze the same financial component for comparable fiscal periods. These calculations may be made in terms of actual numbers (such as cost of goods sold, training expenses, or revenues) or ratios (such as debt-to-equity or current ratio). Horizontal analysis is sometimes referred to as a *variance analysis*. You gain a clearer perspective of whether you are headed in the right direction or whether you need to make corrections. (Variance analysis is discussed in greater detail in Chapter Two.)

For example, VEHD's revenues for 2003 were \$185 million. In 2004, it had earnings of \$167 million. The horizontal, or variance, analysis can reveal such critical increases or decreases in income from one fiscal period to the next. The horizontal analysis for VEHD shows that it had a decrease of \$18 million in revenues, or -9.70 percent, from 2003. This requires immediate attention by management to determine what is causing the decrease. Table 1.5 highlights this part of VEHD's horizontal analysis. A horizontal analysis is useful in highlighting trends, both good and bad, which can be either reinforced with future activities or analyzed for improvement.

Table 1.5. VEHD Revenues for Fiscal Years 2003 and 2004, Horizontal Analysis (\$000)

	2003	2004	\$ (+/-)	% (+/-)
Revenues	\$185,000	\$167,000	-\$18,000	-9.70%

The primary advantage to conducting a vertical or horizontal analysis is that it quickly identifies issues that may affect your operation's performance. The major drawback of these types of analyses is that they do not provide sufficient information to allow you to correct the situation identified.

Marelene quickly realized that there was ample opportunity for T&D to help the company. After speaking with many of her management colleagues recently, she realized there was a concern among them that VEHD's position and competitiveness were slipping against industry rivals and standards. This was a position that Marelene understood how T&D could

address. She also recognized that the improvements against the industry standards would also contribute to the company as a whole, increasing revenues through improved performance and knowledge and reducing production costs through better knowledge and capacity utilization. This would significantly improve the company's gross profit margins and affect its net profit.

Ratio analysis

A *ratio analysis* is the study of the financial position of your company or operation through the numerical relationships between items in the company's financial statements—specifically, the income statement or the balance sheet. Ratios are derived by dividing one financial figure with another. A number of ratios have proven to be of great value in analyzing financial data and results. These ratios are referred to as key business ratios. They reveal specific aspects of profitability, growth, and liquidity. These ratios measure the ability of a company to pay its maturing obligations in the short term, reveal how quickly certain assets can be converted to cash, and analyze profitability and the solvency of the company or operation.

In using ratios it is important that you compare your results properly and perform your calculations the same way each time for consistency and comparability of measurements. A ratio analysis can quickly determine whether your organization or initiative is operating within specific performance criteria or within industry standards. However, you should not use one single ratio to gauge the success or failure of your initiative. This is important because operational training initiatives are critical to improving organizational performance. Comparing ratio analyses of historical performance with the forecast results allows you act quickly on issues affecting your department or training initiatives.

Table 1.6 summarizes the major key business ratios, showing how they are calculated and what their purpose is.

Liquidity ratios *Liquidity ratios* provide an analysis of the operation's cash position in relation to its short-term financial obligations. The liquidity ratio of most relevance to T&D is the *current ratio* (see Table 1.6).

The current ratio is driven by balance sheet components. It demonstrates the organization's ability to meet its current (that is, short-term) liabilities from its current (liquid) assets. It is often used by business professionals and management and should be a part of your discussions and vocabulary.

Table 1.6. Ratio Analysis: Evaluation of Operating Results (Analyses of Profitability and Growth)

Ratio Type	Calculation	Purpose	Analysis
Net profit	$\frac{\text{Net profit}}{\text{Net sales}}$	To provide the amount of profit the company or department generates compared to its revenues.	Ideally, your ratio will be positive and as high as possible. A low or negative ratio requires further analysis of revenue levels, pricing strategy, and expenses.
Return on assets	$\frac{\text{Net profit}}{\text{Total assets}}$	To determine the effective use of all financial resources and assets.	When the ratio is high you are making effective use of financial resources and assets. When the ratio is low you are not investing your financial resources adequately. You should analyze your assets and look to converting them to cash.
Return on investment	$\frac{\text{Net profit}}{\text{Shareholders' equity}}$	To determine the effectiveness of the reinvestment of funds into the company, how well those funds are being used.	When the ratio is high the investment or reinvestment is returning acceptable results. When it is low you need to assess whether you are making effective use of your investment dollars.
Current ratio (working capital)	$\frac{\text{Current assets}}{\text{Current liabilities}}$	To analyze the company's or department's cash position in relation to its short-term financial obligations; analysts use liquidity ratios. The liquidity ratio of most relevance to T&D is the current ratio.	The current ratio (CR) is a single number based on a denominator of 1. The CR must be greater than 1. A high number means that you have sufficient cash available to meet short-term obligations. A low number (or a number less than 1) shows that you are in a poor cash position or maybe insolvent.
Debt-to-equity	$\frac{\text{Long-term debt}}{\text{Shareholders' equity}}$	To show the extent to which the organization is financed by external creditors compared to the extent of the internal investment (from reinvestment of funds, owners, and shareholders).	The debt-to-equity (D/E) ratio is based on a denominator of 1. A result that is lower than 1 is seen as indicating a company that is in control and does not have too much debt. A result of more than 1 indicates that the company is leveraged and in an unhealthy financial position.
Debt-to-assets	$\frac{\text{Total debt}}{\text{Total assets}}$	To measure the extent to which the organization is using its debt in relation to the assets it owns.	The debt-to-assets ratio is based on a denominator of 1. A result that is lower than 1 is seen as indicating a company that is in control and does not have too much debt. A result of more than 1 indicates that the company is leveraged and in an unhealthy financial position.

In the balance sheet for VEHD in 2003, for example, we see that the company had total current assets of \$70 million and current liabilities of \$25 million (as shown in Table 1.2). Here is how we arrive at our current ratio result:

$$\begin{aligned}\text{Current ratio} &= \text{Current assets} / \text{Current liabilities.} \\ \text{Current Ratio} &= \$70,000 / \$25,000. \\ \text{Current Ratio} &= 2.8 \text{ (meaning the company has \$2.80 of} \\ &\text{current assets to meet every \$1 of current liabilities).}\end{aligned}$$

The current ratio is always a single number, and it is based on a denominator of 1. In this example, VEHD has \$2.80 of current assets available to pay for every \$1 of its current liabilities. This is an important ratio for financial reporting and maintaining credibility with lenders. This places the company in a healthy financial position, as it can meet its immediate financial obligations.

There is no ideal current ratio value. The general rule of thumb is that a company is in a healthier short-term financial position as the ratio increases. From a management perspective, however, a ratio that is too high shows ineffective use or reinvestment of surplus financial resources that could help in the growth of the company.

The *quick ratio* is essentially the same as the current ratio. Often referred to as the *acid test ratio*, it reflects the true liquid cash position of a company by removing certain cash-generating items such as inventory. Financial lenders and creditors consider items such as inventory to be nonsignificant and nonvaluable in the event of a company bankruptcy.

Debt ratios Debt for many businesses is a normal part of their daily operations. Debt is often perceived as a practical alternative to the organization's cash reserve for financing internal projects. Debt is acquired through external financing sources, that is, by using other people's money and paying a premium called *interest* for that use. When you use debt, you are *leveraging* external funds. This leverage is common when an organization is growing quickly and does not have the cash flow immediately available to maintain its growth or when the economic cycle makes it inexpensive to borrow external funds, allowing the organization to maintain its own cash for future needs.

As appealing as debt financing is for organizations, there is a danger of having too much, of being *overleveraged*. In this position the lenders of the borrowed funds have more control than the actual owners of the organization.

There are two types of debt ratios: the *debt-to-equity* ratio and the *debt-to-asset* ratio. The debt-to-equity ratio compares the extent to which the organization is financed by external creditors to the investment made internally by the organization (reinvestment of funds, owners, and shareholders). Using the financial data from the VEHD balance sheet, this ratio is calculated as follows:

$$\text{Debt-to-equity ratio} = \text{Long-term debt} / \text{Shareholders' equity.}$$
$$\text{Debt-to-equity ratio} = \$40,000 / \$48,000.$$
$$\text{Debt-to-equity ratio} = 0.84.$$

The debt-to-assets ratio illustrates the extent to which the assets are financed by external creditors. Again using VEHD data, the formula is as follows:

$$\text{Debt-to-assets ratio} = \text{Total debt} / \text{Total assets.}$$
$$\text{Debt-to-assets ratio} = \$40,000 / \$88,900.$$
$$\text{Debt-to-assets ratio} = 0.45.$$

As with the liquidity ratio we analyze these results in relation to the denominator of 1. A result lower than 1 is seen as indicating a company that is in control and does not have too much debt. A result in excess of 1 indicates that the company is in a leveraged position. This means that if the creditors wanted to take control or call back their financing, it would place the company in an unhealthy financial position. So for VEHD's debt-to-equity ratio, we find \$0.84 for \$1 of total equity and for the debt-to-asset ratio we find \$0.45 for every \$1 in total assets. In both cases we see that VEHD is in a healthy position and is not overleveraged.

Debt ratios are important for you to understand because T&D is expected to invest in new tools, technologies, and various other assets. Frequently, these assets are acquired through the use of some form of debt financing (including leasing arrangements) that affects the financial results not only of the department but also of the organization.

Thinking Like Management

- How leveraged is T&D?
 - How are you financing the T&D assets?
 - What proportion of the assets is financed by external creditors?
-

Marelene was somewhat perplexed by the liquidity ratios she came across. She went to see Ron, the company controller, to get a better handle on how any of these ratios would affect T&D. Ron explained that short-term liquidity is always a concern for the company, as this is the money keeping daily operations going. Any downtime for staff—especially sales, accounts receivable, and customer support staff—would affect revenue generation and collection of funds. In turn a reduction in funds would make it difficult for the company to meet its short-term obligations, such as salaries, payments to suppliers, and overhead costs. What Ron believed would be important for Marelene was the debt-to-asset ratio, as T&D often requires additional assets to conduct training effectively, especially for large initiatives. T&D assets requiring financing in the past had included additional software, training for trainer initiatives, e-learning tools, and specific tools used in one-time training activities. Marelene now had a better understanding of the financial ratios and would investigate further other impacts her decisions would have on the company and her training efforts.

Profitability ratios It is common knowledge that all companies are expected to generate a profit. This is a new concept for those who manage areas traditionally thought of as cost centers, such as T&D, and who are now required to manage such areas as profit centers. The first rule is straightforward—generate as much profit as possible. It is important to note that successful companies are more focused on maintaining or increasing their profitability than on increasing sales. This is called a bottom-line focus (whereas an emphasis on sales would be a top-line focus). Profit is equivalent to oil in an engine. Without the oil the engine would seize and not function. In business a lack of profit over a period of time will seize the company's operation. This is why profitability ratios are used often in business and asked for by management. There are several profitability ratios that you need to be aware of and to understand how to use. These ratios draw their financial data primarily from the income statement.

Net profit ratio The simplest of all of the ratios, the *net profit ratio* provides you with the amount of profit your company or department generates compared to your sales. Using the VEHD income statement figures for 2004 (see Table 1.1), the net profit ratio can be represented as follows:

$$\begin{aligned}\text{Net profit ratio} &= \text{Net profit} / \text{Net sales.} \\ \text{Net profit ratio} &= \$34,000,000 / \$167,000,000. \\ \text{Net profit ratio} &= 0.20 \text{ (or 20\% of sales).}\end{aligned}$$

Return on assets ratio The return on assets (ROA) ratio measures whether the organization is making effective use of its assets (what it owns). The ROA takes the company's net profit (profit before any taxes and interest charges are deducted) and divides it by the total value of its net operating assets. A low ROA number indicates that the organization is making ineffective use of its assets. Again, as with all ratios, you should compare this figure to your past performance and industry expectations. This is how we arrive at this ratio using the VEHD example (see Tables 1.1 and 1.2):

$$\text{Return on assets ratio} = \text{Net profit} / \text{Total assets.}$$

$$\text{Return on assets ratio} = \$34,000,000 / \$79,500,000.$$

$$\text{Return on assets ratio} = .43 \text{ (or a 43\% return on assets).}$$

Return on investment (ROI) The term ROI, or *return on investment*, is relatively new to T&D professionals and has become a T&D industry buzzword, but it is not a new term for management, which uses it on a regular basis. ROI can be the common ground for communication between T&D and senior management, because training is expected to deliver tangible results, or *returns* (hence, return on investment). The return on investment formula used in the business world reflects the net profit (income) the company earns in relation to its invested capital. Think about a personal investment that you might hold, such as a mutual fund, government bond, or certificate of deposit. You were told that if you invested say \$1,000, you would receive a 5 percent return on that investment. The 5 percent, or \$50, would be your ROI. We arrive at the ROI by dividing the net profit (\$50) by the initial invested capital (\$1,000)—in this example, the ROI is 5 percent. Let's look at VEHD's ROI (see Tables 1.1 and 1.2):

$$\text{Return on investment ratio} = \text{Net profit} / \text{Shareholders' equity.}$$

$$\text{Return on investment ratio} = \$34,000,000 / \$48,000,000.$$

$$\text{Return on investment ratio} = 0.71 \text{ (or a 71\% return on the investment).}$$

Analyzing key business ratios provides a lot of information on the performance of your business. In this section we addressed the common ratios that are relevant specifically to the needs of T&D. There are many other ratios that can give you valuable insights into your operations and initiatives. It is recommended that you create your own ratios based on areas of operation you are interested in tracking. A ratio is simply a comparison or relationship between two numbers from your financial results. Look carefully at what you are trying to accomplish and try to

determine what it is that you want to know and then develop your own ratios.

The next step is to leverage the three types of financial analyses together. By combining the vertical, horizontal, and ratio analyses you can gain a complete analysis of the performance of your operation. Table 1.7 shows how the three types of analyses can work together for our example, VEHD.

You will also see that Table 1.7 expresses some analyses in terms of percentages. To explain the concepts behind these mathematical relationships, I have been discussing them all as ratios. However, in the business world some of these relationships are traditionally presented as percentages rather than ratios, and Table 1.7 reflects that customary use. So on this table you will see that the results for net profit, return on assets, and return on investment are now expressed as percentages (that is, the ratio has been multiplied by 100). You will see this method used on reports for your own company or department.

Break-even analysis

A break-even analysis lets you determine at what unit level or volume usage your department will cover the cost of developing or acquiring training solutions. Conducting a break-even analysis is a common strategy among business professionals and something you are likely to be asked to do. It is important to be aware of break-even levels as they will determine whether your department should move forward on initiatives or attempt to find other ways to ensure that it covers its costs. We will apply the break-even analysis in Chapter Two, which focuses on budgets.

Review

The role T&D must play in business is more important than ever before. Management recognizes the importance of leveraging the knowledge of employees. Managers are requiring T&D professionals to be more aware of business issues and the impact that learning solutions will have on the company.

For management, training or learning in itself is not what is important. Managers want to see results. These results take the form of improved performance, return on investment, and tangible results—things managers can see on a financial statement. They want to hear about solutions in a language they understand.

The first step in building T&D's credibility is to understand the business and financial language used in your company. Speaking that language will help you to be understood by management and to better understand management's needs. The

Table 1.7. VEHD Evaluation of Operating Results for Fiscal Years 2003 and 2004

Ratio Type	Calculation	2003	2004	% (+/-)
Net profit	$\frac{\text{Net profit}}{\text{Net sales}} \times 100$	$\frac{\$35,000}{\$185,000} \times 100 = 18.91$	$\frac{\$34,000}{\$167,000} \times 100 = 20.35$	+1.44
Return on assets	$\frac{\text{Net profit}}{\text{Total assets}} \times 100$	$\frac{\$35,000}{\$88,000} \times 100 = 39.77$	$\frac{\$34,000}{\$79,500} \times 100 = 42.76$	+2.99
Return on investment	$\frac{\text{Net profit}}{\text{Shareholders' equity}} \times 100$	$\frac{\$35,000}{\$48,000} \times 100 = 72.92$	$\frac{\$34,000}{\$50,000} \times 100 = 68\%$	-4.92
Current ratio (working capital)	$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{\$70,000}{\$25,000} = 2.80$	$\frac{\$60,000}{\$19,500} = 3.08$	+0.28
Debt-to-equity	$\frac{\text{Long-term debt}}{\text{Shareholders' equity}}$	$\frac{\$40,000}{\$48,000} = 0.83$	$\frac{\$29,500}{\$50,000} = 0.59$	-0.24
Debt-to-assets	$\frac{\text{Total debt}}{\text{Total assets}}$	$\frac{\$15,000}{\$88,000} = 0.17$	$\frac{\$10,000}{\$79,500} = 0.12$	-0.05

information you need to improve your company's performance is on the financial statements. Interpreting the results presented on these documents will help you and your T&D department to better identify the concerns and objectives of management. Using the financial analysis tools, you are equipped to identify areas for improvement, develop appropriate solutions, and communicate to management how you are going answer the need at hand.

Review Quiz

1. The training program and e-learning software that a company owns are considered
 - A liability.
 - Shareholders' equity.
 - An asset.
 - None of the above.
 - All of the above.

2. A company has \$1,000,000 of shareholders' equity and \$75,000 in liabilities. What are the assets of this company?
 - \$1,000,000.
 - \$75,000.
 - \$900,000.
 - None of the above.

3. A company has cash in the bank in the amount of \$850,000, inventory worth \$50,000, and a building worth \$100,000. These are the only assets for the company. The company has liabilities that amount to \$925,000. How much is the owners' (shareholders') equity in this company?
 - \$75,000.
 - \$1,000,000.
 - \$925,000.
 - None of the above.

4. Which of the following is not an asset?

- A desk.
- A truck.
- Retained earnings.
- None of the above.
- All of the above.

5. Accounts receivable are considered

- A liability.
- A current asset.
- A long-term asset.
- A fixed asset.

6. Common equity includes

- Retained earnings.
- Shareholders' equity.
- Capital surplus.
- All of the above.

7. Long-term liabilities are those that

- Are due in 1 year or more.
- Are due in 5 years or more.
- Are due less than 1 year.
- None of the above.

8. A vertical analysis allows you to

- Analyze the value of the company.
- Determine the company's profitability.
- Compare an item on the income statement with a common base.
- All of the above.

9. Ratio analysis allows you to analyze company performance by
- Comparing two or more items from a financial statement.
 - Determining the variance of results from one period to another.
 - Determining the cost of goods sold.
 - None of the above.
10. The purpose of your analyzing the financial data of your company is to
- Build credibility for T&D.
 - Identify problem areas that T&D can address.
 - Make more effective use of resources.
 - Determine the impact T&D has made on the company.
 - All of the above.

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Answer Key for Chapter One Review Quiz

1. An asset.
2. None of the above, 1,075,000 (Assets = Liabilities + Shareholders' equity).
3. \$75,000 (Assets – Liabilities = Shareholders' equity).
4. Retained earnings.
5. A current asset.
6. All of the above.
7. Are due in 1 year or more.
8. Compare an item on the income statement with a common base.
9. Comparing two or more items from a financial statement.
10. All of the above.

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