SCA Today

The Official Magazine of the Society of Commercial Arboriculture

Volume 22, No. 4

Managerial Accounting for Arborists

Part 1: Accounting Basics

By James Komen

A profit and loss report is the basic yardstick for a business. It's meant to answer the question, "How are we doing?" But in many ways, the picture presented by the P&L sheet can become distorted unintentionally and give managers a false impression of a company's health.

Company managers base many of their decisions on the outcome of a company's profits, and a distorted image of the company's financial health can sometimes lead to poor decision-making. It is to the benefit of a company for its managers to become familiar with the mechanics of the accounting system that produces the reports on which they base their decisions so they can avoid these potential pitfalls.

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This five-part article series introduces some basic concepts in accounting and then applies them to managing the finances of a commercial arboricultural company. In this first section, I introduce some fundamental accounting terms.

Basic Terminology

Values and costs do not "appear" and "disappear." They simply move from one place to another. Each of the different places to which value and cost can be allocated are known as accounts.

There are five basic types of accounts in any company: **income**, **expense**, **asset**, **liability**, and **equity**. **Income** is the value that has flowed into the company. **Expense** is the cost that has flowed out of the company. **Asset** is the value that is stored in the company. **Liability** is the value owed to parties outside the company. **Equity** is the amount of value associated with ownership of the company. Many sub-accounts may exist within these basic categories, and they will be discussed later (*See Subaccounts*).

The means of transferring value and costs between accounts are called **debits** and **credits**. Debits and credits always exactly offset each other in every transaction. Each rudimentary transaction containing at least one debit and one credit is known as a **journal entry**. The sum total of all of the debits and credits for any given account is the **balance** of that account. Depending on which account they are applied to, debits and credits may either be increases or decreases (*see Figure 1*). The combined set of all journal entries for a company is known as the **ledger**.

The **ledger** can be displayed in two important reports that show the financial position of the company: the **profit and loss** and the **balance sheet**. The profit and loss report shows the income and expense accounts over a specified period of time and aggregates these accounts to display **net income** for that period. The balance sheet shows the asset, liability, and equity accounts at one point in time. Learning how to read the profit and loss and balance sheet reports is essential for understanding the financial position of a company.

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Subaccounts

Within the five basic account types, there are several common subaccounts that are used in most businesses. This section introduces these common accounts so they may be used in explanations and examples in future articles in this series.

Asset Accounts

The asset account is divided into **Current Assets** and **Fixed Assets**. Current assets are cash or assets that will be converted to cash within one year. Current assets include **cash**, **accounts receivable**, **prepaid expenses**, and **inventory**.

Cash is the money readily available for spending including bank account balances and **petty cash**, the tangible dollar bills used for small scale transactions. Cash-based accounting typically relies entirely upon the cash balance of the company to measure its financial position (how much money is in the bank), often resulting in a distortion discussed later.

Accounts receivable (also known as A/R) is the amount of money owed by clients for services promised or delivered that is planned to be obtained within the next year. For the time between when an invoice is created until payment is received, the value of the invoice is stored in accounts receivable. For large contracts such as those through government agencies, value often stays in A/R for long periods of time before payment is received. Although A/R is a current asset, it is of limited value to the company until it is paid by the client. Managing A/R is critical for small companies with limited available cash because even though the company may have high income for a period of time, it may still become unable to pay its bills if it runs out of cash.

Managing A/R is critical for small businesses to survive when working with large contracts.

	Debit	Credit
Income	Decrease	Increase
Expense	Increase	Decrease
Asset	Increase	Decrease
Liability	Decrease	Increase
Equity	Decrease	Increase

Figure 1: Table of how debits and credits affect each of the five basic account types.

Prepaid expenses are the amounts paid before an expense is actually used. Prepaid expense accounts are most often associated with **accrual accounting**, discussed later. For example, a company may pre-pay its rent for the next year at the start of its lease. The amount pre-paid would be stored in the prepaid expenses account until each monthly amount is then released to an expense account with a journal entry. Cash and accrual accounting systems will be discussed in Part 2 of this series.

Fixed assets are assets that will remain on the company's balance sheet for more than one year. Trucks, chippers, and heavy equipment are fixed assets. If a company owns real estate such as an office or a production yard, it is recorded as a fixed asset. Usually, fixed assets cannot be readily converted to cash, or there is a large transaction cost associated with converting them to cash. Fixed assets are held on the balance sheet while their value is released gradually into a **depreciation** expense account until they are disposed. The concept of depreciation will be discussed in more detail in Part 3 of this series.

Liability Accounts

The liability account is divided into **short term liabilities** and **long term liabilities**. Short term liabilities include **credit cards**, **accounts payable**, and **client deposits**.

Credit cards are short term loans that are intended to be paid back to the credit card issuer. The general purpose of credit cards is to provide **liquidity**, availability of readily spendable assets. When a company runs out of spendable cash, it becomes paralyzed and cannot pay its obligations or invest in new opportunities. With a credit card, it still has the ability to make purchases until the balance of the cash account is restored.

Accounts payable, also known as A/P, is the amount the business owes to other entities. Typically bills from other service providers or suppliers are credited to A/P before being paid. For the time between receiving a bill and paying it, the value of the bill is stored in A/P.

Revolving credit accounts like credit cards are for improving company liquidity.

Similar to prepaid expenses, the **client deposits liability account** tracks instances when the clients prepay for services to be delivered at a later time. When clients prepay, the payment amount is credited to the client deposit account. The company "pays off" its debt to the client by performing the work it had agreed to do. When the contracted work is performed, the liability account is debited, and the income account is credited.

Long term liabilities are loans that are intended to be kept open for more than one year. Typically, long term liabilities are **secured** with a collateral fixed asset account; if the company **defaults** or fails to pay its obligation on the loan, the loan originator can seize the collateral fixed asset account. A tree business may have a loan secured by its truck and chipper or other equipment. Or if the business owns real estate, its property may have a mortgage attached to it.

Income and Expense Accounts

Income accounts may be divided into various groups depending on the type of products and services offered by a business. There may be an income account for general pruning work, tree planting, and products sold. Each of these may be further subdivided. Additional account subdivisions will be discussed in Part 3 of this series.

Expense accounts are divided into **Cost of Goods Sold** and **Operating Expenses** based on how the expenses behave.

Cost of Goods Sold, also known as **COGS**, are the expenses that are directly associated with incremental amounts of income. The simplest example is a business selling tangible goods. When a business purchases fertilizer for $100 and sells it for $200, the $200 is recorded as Product Sales Income and the $100 is recorded as COGS. The company can expect that as it sells more fertilizer, its COGS will increase proportionately with sales.

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Examples of Common Journal Entry Transactions

Sale of a $2,000 Tree Service Job

	Debit	Credit
Asset (cash)	$2,000	
Income		$2,000

The Asset (cash) account increases because the new money obtained from the sale of the job was added to the balance of the company's cash. The income account also increases because the inflow of value during the current period has increased by an equal amount.

Purchase of Gas for the Company Truck on a Credit Card

	Debit	Credit
Liability (credit card)		$150
Expense	$150	

The Liability (credit card) account increases because the company now owes a new debt to the credit card company as a result of the transaction. The expense account increases by an equal amount because of the outflow of value during the current period.

Taking Out a Loan from the Bank

	Debit	Credit
Asset (cash)	$20,000	
Liability (loan)		$20,000

The Asset (cash) account increases by the amount of the loan proceeds, and the Liability account increases by an equal amount. Note that no value has flowed in or out (income or expense) of the company as a result of the loan. The company is neither "richer" nor "poorer" as a result of originating the loan. The interest accrued on the loan is recorded in a different transaction.

Making a Payment on a Loan

	Debit	Credit
Asset (cash)		$550
Expense (interest)	$50	
Liability (loan)	$500	

The Asset (cash) account increases by the amount of the loan proceeds, and the Liability account increases by an equal amount. Note that no value has flowed in or out (income or expense) of the company as a result of the loan. The company is neither "richer" nor "poorer" as a result of originating the loan. The interest accrued on the loan is recorded in a different transaction.

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However, serviced-based businesses can use COGS too. When the company marks up the hourly rate paid to its employees when billing its clients, the amount paid to those employees is recorded as **direct labor** in the COGS account. Direct labor is the amount spent on production of goods or services directly sold to customers, and it is directly proportional to the income earned.

Similarly, the payroll taxes and worker's compensation insurance may be recorded as COGS because they are directly proportional to direct labor payroll. Worker's compensation insurance as COGS will be discussed in Part 4 of this series.

Allocating payroll to COGS can become complex when employees are salaried or if employees perform tasks in addition to ordinary hourly production work. Allocating payroll expenses among various account types will be addressed in Part 4 as well.

Equity Accounts

Equity accounts are divided into **Opening Balance Equity**, **Shareholder Equity**, **Shareholder Distributions**, and **Retained Earnings**. The opening balance equity account reflects the net value of the assets and liabilities at the time of the company's inception. Transactions are not made using this account after the company's ledger has been opened.

Cash accounting may be simpler than accrual accounting to implement, but it has many disadvantages.

Worker's Compensation Insurance should be treated as COGS to better predict future changes in premiums.

Shareholder equity accounts record the amount of money invested by owners. They are not discussed further within the scope of this article.

Shareholder distributions track the company profits that are distributed to shareholders. The reason for separating shareholder equity accounts from shareholder distributions is to make the balance sheet clearly delineate between the relative ownership of the company and the amounts distributed to shareholders without changing relative ownership. Unless stated specifically in a partnership agreement, distributions are typically proportionate to the percentage ownership of each shareholder.

Retained earnings are the value of the net income not distributed to shareholders. Sometimes companies will use retained earnings to pay off debt or add to asset accounts. This account tracks the amount of earned income that was not distributed. It is the remaining equity after subtracting the opening balance equity, shareholder equity, and shareholder distributions.

The next article in this series discusses the difference between Cash and Accrual Accounting and how to avoid some major pitfalls associated with the timing of transactions between each of these accounts. It looks at Prepaid Expense Asset Accounts as a tool for more clearly presenting the financial picture of a company.

James Komen is a consulting arborist in California specializing in risk assessment and tree appraisals. He employs principles of finance and accounting to help clients make informed management decisions for individual trees and for tree inventories. You can learn more about James from his website at www.jameskomen.com.