

## A

**ABC database** the collected data sets that are organized and interrelated for use by an organization's activity-based costing information system.

**absorption costing** a costing method that assigns all manufacturing costs, including direct materials, direct labor, variable overhead, and a share of fixed overhead, to each unit of product.

**absorption-costing income** income computed by following a functional classification.

**acceptable quality level (AQL)** a predetermined level of defective products that a company permits to be sold.

**accounting information system** a system consisting of interrelated manual and computer parts that uses processes such as collecting, recording, summarizing, analyzing (using decision models), and managing data to provide output information to users.

**accounting rate of return** the rate of return obtained by dividing the average accounting net income by the original investment (or by average investment).

**activity** a basic unit of work performed within an organization. It also can be defined as an aggregation of actions within an organization useful to managers for purposes of planning, controlling, and decision making.

**activity analysis** the process of identifying, describing, and evaluating the activities an organization performs.

**activity attributes** financial and non-financial information items that provide descriptive labels for individual activities.

**activity capacity** the ability to perform activities or the number of times an activity can be performed.

**activity dictionary** lists the activities in an organization along with desired attributes.

**activity drivers** measure the demands that cost objects place on activities.

**activity elimination** the process of eliminating non-value-added activities.

**activity flexible budgeting** the prediction of what activity costs will be as activity output changes.

**activity inputs** resources consumed by an activity in producing its output. (They are the factors that enable the activity to be performed.)

**activity inventory** a listing of the activities performed within an organization.

**activity output** the result or product of an activity.

**activity output measure** assesses the number of times the activity is performed. It is the quantifiable measure of the output.

**activity productivity analysis** an approach that directly measures changes in activity productivity.

**activity rate** the average unit cost, obtained by dividing the resource expenditure by the activity's practical capacity.

**activity reduction** decreasing the time and resources required by an activity.

**activity selection** the process of choosing among sets of activities caused by competing strategies.

**activity sharing** increasing the efficiency of necessary activities by using economies of scale.

**activity volume variance** the cost difference of the actual activity capacity acquired and the capacity that should be used.

**activity-based budgeting system** budgeting the costs of resources at the activity level.

**activity-based costing** assigns costs to cost objects by first tracing costs to activities and then tracing costs to cost objects.

**activity-based costing (ABC) system** a cost accounting system that uses both unit and non-unit-based cost drivers to assign costs to cost objects by first tracing costs to activities and then tracing costs from activities to products.

**activity-based management (ABM)** an advanced control system that focuses management's attention on activities with the objective of improving the value received by the customer and the profit received by providing this value. It includes driver analysis, activity analysis, and performance evaluation and draws on activity-based costing as a major source of information.

**activity-based responsibility accounting** assigns responsibility to processes and uses both financial and nonfinancial measures of performance.

**actual cost system** a cost measurement system in which actual manufacturing costs are assigned to products.

**adjusted cost of goods sold** normal cost of goods sold adjusted to include overhead variance.

**administrative costs** all costs associated with the general administration of the organization that cannot be reasonably assigned to either marketing or production.

**administrative expense budget** a budget consisting of estimated expenditures for the overall organization and operation of the company.

**advance pricing agreement (APAs)** an agreement between the internal revenue service and a taxpayer on the acceptability of a transfer price. The agreement is private and is binding on both parties for a specified period of time.

**aesthetics** a quality attribute that is concerned with the appearance of tangible products (for example, style and beauty) as well as the appearance of the facilities, equipment, personnel, and communication materials associated with services.

**allocation** assignment of indirect costs to cost objects.

**allocative efficiency** the point at which given the mixes that satisfy the condition of technical efficiency, the least costly mix is chosen.

**annuity** a series of future cash flows.

**applied overhead** the overhead assigned to production using a predetermined overhead rate.

**appraisal costs** costs incurred to determine whether or not products and services are conforming to requirements.

**arbitrage** a situation when customers who purchase a good at a lower price are able to resell it to other customers.

**assets** unexpired costs.

## B

**backflush costing** a simplified approach for cost flow accounting that uses trigger points to determine when manufacturing costs are assigned to key inventory and temporary accounts.

**Balanced Scorecard** a strategic-based performance management system that typically identifies objectives and measures for four different perspectives: the financial perspective, the customer perspective, the process perspective, and the learning and growth perspective.

**base period** a prior period used to set the benchmark for measuring productivity changes.

**batch production processes** a process that produces batches of different products that are identical in many ways but differ in others.

**batch-level activities** activities performed each time a batch is produced.

**benchmarking** uses best practices as the standard for evaluating activity performance.

**bill of activities** specifies the product, product quantity, activity, and amount of each activity expected to be consumed by each product.

**binding constraint** constraints whose limited resources are fully used by a product mix.

**break-even point** the point where total sales revenue equals total costs, i.e., the point of zero profits.

**budget** a plan of action expressed in financial terms.

**budget committee** a committee responsible for setting budgetary policies and goals, reviewing and approving the budget, and resolving any differences that may arise in the budgetary process.

**budget director** the individual responsible for coordinating and directing the overall budgeting process.

**budgetary slack** the process of padding the budget by overestimating costs and underestimating revenues.

**business ethics** learning what is right or wrong in the work environment and choosing what is right.

**by-product** a secondary product recovered in the course of manufacturing a primary product during a joint process.

## C

**capital budgeting** the process of making capital investment decisions.

**capital expenditures budget** a financial plan outlining the acquisition of long-term assets.

**capital investment decisions** decisions concerned with the process of planning, setting goals and priorities, arranging financing, and using certain criteria to select long-term assets.

**carrying costs** the costs of holding inventory.

**cash budget** a detailed plan that outlines all sources and uses of cash.

**causal factors** activities or variables that invoke service costs. Generally, it is desirable to use causal factors as the basis for allocating service costs.

**centralized decision making** a system in which decisions are made at the top level of an organization and local managers are given the charge to implement them.

**Certified Internal Auditor (CIA)** an accountant certified to possess the

professional qualifications of an internal auditor.

**Certified Management Accountant (CMA)** an accountant who has satisfied the requirements to hold a certificate in management accounting.

**Certified Public Accountant (CPA)** an accountant certified to possess the professional qualifications of an external auditor.

**coefficient of correlation** the square root of the coefficient of determination, which is used to express not only the degree of correlation between two variables but also the direction of the relationship.

**coefficient of determination** the percentage of total variability in a dependent variable (e.g., cost) that is explained by an independent variable (e.g., activity level). It assumes a value of between 0 and 1.

**committed fixed expenses** costs incurred for the acquisition of long-term activity capacity, usually as the result of strategic planning.

**committed resources** acquired as used and needed, these are a strictly variable cost. The quantity supplied equals quantity demanded, so there is no excess capacity.

**common cost** the cost of a resource used in the output of two or more services or products.

**common fixed expenses** fixed costs that are not traceable to the segments and that would remain even if one of the segments were eliminated.

**comparable uncontrolled price method** the transfer price most preferred by the Internal Revenue Service under Section 482. The comparable uncontrolled price is essentially equal to the market price.

**competitive advantage** creating better customer value for the same or lower cost than can competitors or equivalent value for lower cost than can competitors.

**compliance management** the practice of achieving the minimal environmental performance required by regulations, and to do as cheaply as possible.

**compounding of interest** paying interest on interest.

**concatenated keys** two or more keys that uniquely identify a record.

**confidence interval** prediction interval that provides a range of values for the actual cost with a prespecified degree of confidence.

**constant gross margin percentage method** a joint cost allocation

method that maintains the same gross margin percentage for each product.

**constrained optimization** choosing the optimal mix given the constraints faced by the firm.

**constraint set** the collection of all constraints that pertain to a particular optimization problem.

**constraints** a mathematical expression that expresses a resource limitation.

**consumable life** the length of time that a product serves the needs of a customer.

**consumption ratio** the proportion of an overhead activity consumed by a product.

**continuous improvement** the relentless pursuit of improvement in the delivery of value to customers; searching for ways to increase overall efficiency by reducing waste, improving quality, and reducing costs.

**continuous (or rolling) budget** a moving twelve-month budget with a future month added as the current month expires.

**continuous replenishment** when a manufacturer assumes the inventory management function for the retailer.

**contribution margin** the difference between revenue and all variable expenses.

**contribution margin ratio** contribution margin divided by sales revenue. It is the proportion of each sales dollar available to cover fixed costs and provide for profit.

**contribution margin variance** the difference between actual and budgeted contribution margin.

**contribution margin volume variance** the difference between the actual quantity sold and the budgeted quantity sold multiplied by the budgeted average unit contribution margin.

**control** the process of setting standards, receiving feedback on actual performance, and taking corrective action whenever actual performance deviates significantly from planned performance.

**control activities** activities performed by an organization to prevent or detect poor quality (because poor quality may exist).

**control costs** costs incurred from performing control activities.

**control limits** the maximum allowable deviation from a standard.

**controllable costs** costs that managers have the power to influence.

**controller** the chief accountant of an organization.

- controlling** the monitoring of a plan through the use of feedback to ensure that the plan is being implemented as expected.
- conversion cost** the sum of direct labor cost and overhead cost.
- core objectives and measures** those objectives and measures common to most organizations.
- cost** the cash or cash equivalent value sacrificed for goods and services that are expected to bring a current or future benefit to the organization.
- cost accounting** a subsystem of cost management that is concerned with determining the cost of products, services, projects, activities, and other objects that may be of interest to managers.
- cost accounting information system** a cost management subsystem designed to assign costs to individual products and services and other objects as specified by management.
- cost accumulation** the recognition and recording of costs.
- cost assignment** the process of associating manufacturing costs with the units produced.
- cost behavior** the way in which a cost changes in relation to changes in activity usage.
- cost center** a responsibility center in which a manager is responsible for cost.
- cost leadership strategy** providing the same or better value to customers at a lower cost than offered by competitors.
- cost management** identifies, collects, measures, classifies, and reports information that is useful to managers in costing (determining what something costs), planning, controlling, and decision making.
- cost management information system** an accounting information subsystem that is primarily concerned with producing outputs for internal users using inputs and processes needed to satisfy management objectives.
- cost measurement** the process of assigning dollar values to cost items.
- cost object** any item such as products, departments, projects, activities, and so on, for which costs are measured and assigned.
- cost of goods manufactured** the total cost of goods completed during the current period.
- cost of goods sold** the cost of direct materials, direct labor, and overhead attached to the units sold.
- cost reconciliation** determining whether the costs assigned to units transferred out and to units in ending work in process are equal to the costs in beginning work in process plus the manufacturing costs incurred in the current period.
- cost-plus method** a transfer price acceptable to the Internal Revenue Service under Section 482. The cost-plus method is simply a cost-based transfer price.
- cost-volume-profit graph** a graph that depicts the relationships among costs, volume, and profits. It consists of a total revenue line and a total cost line.
- costs of quality** costs incurred because poor quality may exist or because poor quality does exist.
- cumulative average-time learning curve model** the model stating that the cumulative average time per unit decreases by a constant percentage, or learning rate, each time the cumulative quantity of units produced doubles.
- currency appreciation** the state of a country's currency becoming stronger and being able to purchase more units of another country's currency.
- currency depreciation** the state of a country's currency becoming weaker and being able to purchase fewer units of another country's currency.
- currency risk management** a company's management of its transaction, economic, and translation exposure due to exchange rate fluctuations.
- currently attainable standard** a standard that reflects an efficient operating state; it is rigorous but achievable.
- customer perspective** a Balanced Scorecard viewpoint that defines the customer and market segments in which the business will compete.
- customer value** the difference between what a customer receives (customer realization) and what the customer gives up (customer sacrifice).
- cycle time** the length of time required to produce one unit of a product.
- D**
- data set** a grouping of logically related data.
- decentralization** the granting of decision-making freedom to lower operating levels.
- decentralized decision making** a system in which decisions are made and implemented by lower-level managers.
- decision making** the process of choosing among competing alternatives.
- decision model** a set of procedures that, if followed, will lead to a decision.
- decision package** a description of services, with associated costs, that a decision unit can or would like to offer.
- decline stage** the stage in a product's life cycle when the product loses market acceptance and sales begin to decrease.
- defective product** a product or service that does not conform to specifications.
- degree of operating leverage** a measure of the sensitivity of profit changes to changes in sales volume. It measures the percentage change in profits resulting from a percentage change in sales.
- dependent variable** a variable whose value depends on the value of another variable. For example,  $Y$  in the cost formula  $Y = F + VX$  depends on the value of  $X$ .
- deviation** the difference between the cost predicted by a cost formula and the actual cost. It measures the distance of a data point from the cost line.
- differentiation strategy** an approach that strives to increase customer value by increasing what the customer receives.
- direct costs** costs that can be easily and accurately traced to a cost object.
- direct fixed expenses** fixed costs that can be traced to each segment and would be avoided if the segment did not exist.
- direct labor** labor that is traceable to the goods or services being produced.
- direct labor budget** a budget showing the total direct labor hours needed and the associated cost for the number of units in the production budget.
- direct labor efficiency variance** the difference between the actual direct labor hours used and the standard direct labor hours allowed multiplied by the standard hourly wage rate.
- direct labor rate variance** the difference between the actual hourly rate paid and the standard hourly rate multiplied by the actual hours worked.
- direct materials** those materials that are traceable to the good or service being produced.
- direct materials price variance** the difference between the actual price

paid per unit of materials and the standard price allowed per unit multiplied by the actual quantity of materials purchased.

**direct materials purchases budget** a budget that outlines the expected usage of materials production and purchases of the direct materials required.

**direct materials usage variance** the difference between the direct materials actually used and the direct materials allowed for the actual output multiplied by the standard price.

**direct method** a method that allocates service costs directly to producing departments. This method ignores any interactions that may exist among service departments.

**direct tracing** the process of identifying costs that are specifically or physically associated with a cost object.

**discount factor** the factor used to convert a future cash flow to its present value.

**discount rate** the rate of return used to compute the present value of future cash flows.

**discounted cash flows** future cash flows expressed in present value terms.

**discounting** the act of finding the present value of future cash flows.

**discounting models** any capital investment model that explicitly considers the time value of money in identifying criteria for accepting or rejecting proposed projects.

**discretionary fixed expenses** costs incurred for the acquisition of short-term capacity or services, usually as the result of yearly planning.

**double-loop feedback** information about both the effectiveness of strategy implementation and the validity of assumptions underlying the strategy.

**driver analysis** the effort expended to identify those factors that are the root causes of activity costs.

**driver tracing** the use of drivers to assign costs to cost objects.

**drivers** factors that cause changes in resource usage, activity usage, costs, and revenues.

**drum-buffer-rope (DBR) system** the TOC inventory management system that relies on the drum beat of the major constrained resource, time buffers, and ropes to determine inventory levels.

**drummer** the major binding constraint.

**dumping** predatory pricing on the international market.

**durability** the length of time a product functions in its intended manner.

**duration drivers** measure the demands in terms of the time it takes to perform an activity, such as hours of hygienic care and monitoring hours.

**dysfunctional behavior** individual behavior that conflicts with the goals of the organization.

## E

**ecoefficiency** a view of environmental management maintaining that organizations can produce more useful goods and services while *simultaneously* reducing negative environmental impacts, resource consumption, and costs.

**economic order quantity (EOQ)** the amount that should be ordered (or produced) to minimize the total ordering (or setup) and carrying costs.

**economic risk** the possibility that a firm's present value of future cash flows can be affected by exchange fluctuations.

**economic value added (EVA)** the after-tax operating profit minus the total annual cost of capital.

**effectiveness** the manager's performance of the right activities. Measures might focus on value-added versus non-value-added activities.

**efficiency** the performance of activities. May be measured by the number of units produced per hour or by the cost of those units.

**efficiency variance** *see* usage variance.

**elastic demand** when a price increase (decrease) of a certain percent lowers (raises) the quantity demanded by more than that percentage.

**electronic commerce (e-commerce)** any form of business that is executed using information and communications technology.

**electronic data interchange (EDI)** an inventory management method that allows suppliers access to a buyer's on-line data base.

**ending finished goods inventory budget** a budget that describes planned ending inventory of finished goods in units and dollars.

**enterprise resource planning (ERP) software** software that has the objective of providing an integrated system capability—a system that can run all the operations of a company and provide access to real-time data from the various functional areas of a company.

**entities** objects about which data are produced and gathered.

**environmental costs** costs that are incurred because poor environmental quality exists or may exist.

**environmental detection costs** costs incurred to detect poor environmental performance.

**environmental external failure costs** costs incurred after contaminants are introduced into the environment.

**environmental internal failure costs** costs incurred after contaminants are produced but before they are introduced into the environment.

**environmental prevention costs** costs incurred to prevent damage to the environment.

**equivalent units of output** the whole units that could have been produced in a period given the amount of manufacturing inputs used.

**error cause identification** a program in which employees describe problems that prevent them from doing their jobs right the first time.

**error costs** the costs associated with making poor decisions based on inaccurate product costs (or bad cost information).

**ethical behavior** behavior that results in choices/actions that are right, proper, and just.

**exchange gain** a gain on the exchange of one currency for another due to appreciation in the home currency.

**exchange loss** a loss on the exchange of one currency for another due to depreciation in the home currency.

**exchange rates** the rate at which a foreign currency can be exchanged for the domestic currency.

**executional activities** activities that define the processes of an organization.

**expected activity level** the level of production activity expected for the coming period.

**expected global consumption ratio** the proportion of the total activity costs consumed by a given product or cost object.

**expenses** expired costs.

**external constraints** limiting factors imposed on the firm from external sources.

**external failure costs** costs incurred because products fail to conform to requirements after being sold to outside parties.

**external linkages** the relationship of a firm's activities within its segment of the value chain with those

activities of its suppliers and customers.

**external measures** measures that relate to customer and shareholder objectives.

## F

**facility-level activities** activities that sustain a factory's general manufacturing processes.

**failure activities** activities performed by an organization or its customers in response to poor quality.

**failure costs** the costs incurred by an organization because failure activities are performed.

**favorable (F) variance** a variance produced whenever the actual amounts are less than the budgeted or standard allowances.

**feasible set of solutions** the collection of all feasible solutions.

**feasible solution** a product mix that satisfies all constraints.

**feature costing** assigns costs to activities and products or services based on the product's or service's features.

**features (quality of design)** characteristics of a product that differentiate functionally similar products.

**feedback** information that can be used to evaluate or correct steps being taken to implement a plan.

**FIFO costing method** a unit-costing method that excludes prior-period work and costs in computing current-period unit work and costs.

**financial accounting** the branch of the accounting system that is concerned with the preparation of financial reports for users external to the organization.

**financial accounting information system** an accounting information subsystem that is primarily concerned with producing outputs for external users and uses well-specified economic events as inputs and processes that meet certain rules and conventions.

**financial budgets** that portion of the master budget that includes the cash budget, the budgeted balance sheet, the budgeted statement of cash flows, and the capital budget.

**financial measures** measures expressed in dollar terms.

**financial perspective** a Balanced Scorecard viewpoint that describes the financial consequences of actions taken in the other three perspectives.

**financial productivity measure** a productivity measure in which in-

puts and outputs are expressed in dollars.

**fitness for use** the suitability of the product for carrying out its advertised functions.

**five-year assets** assets with an expected life for depreciation purposes of five years; light trucks, automobiles, and computer equipment fall into this category.

**fixed costs** costs that in total are constant within the relevant range as the level of the cost driver varies.

**fixed overhead spending variance** the difference between actual fixed overhead and applied fixed overhead.

**fixed overhead volume variance** the difference between budgeted fixed overhead and applied fixed overhead; it is a measure of capacity utilization.

**flexible budget** a budget that can specify costs for a range of activity.

**flexible budget variances** the difference between actual costs and expected costs given by a flexible budget.

**flexible resources** acquired as used and needed, these are a strictly variable cost. The quantity supplied equals quantity demanded, so there is no excess capacity.

**focusing strategy** selecting or emphasizing a market or customer segment in which to compete.

**foreign trade zones (FTZs)** areas physically on U.S. soil but considered to be outside U.S. commerce. Goods imported into a foreign trade zone are duty-free until they leave the zone.

**forward contract** an agreement that requires the buyer to exchange a specified amount of a currency at a specified rate (the forward rate) on a specified future date.

**full environmental costing** the assignment of all environmental costs, both private and societal, to products.

**full private costing** the assignment of only private costs to individual products.

**full-costing income** *see* absorption-costing income.

**functional-based cost system** a cost accounting system that uses only unit-based activity drivers to assign costs to cost objects.

**functional-based operation control system** a system that assigns costs to organizational units and then holds the organizational unit manager responsible for controlling the assigned costs.

**functional-based responsibility accounting system** assigns responsibility to organizational units and expresses performance measures in financial terms.

**future value** the value that will accumulate by the end of an investment's life if the investment earns a specified compounded return.

## G

**gainsharing** providing cash incentives for a company's entire workforce that are keyed to quality or productivity gains.

**goal congruence** the alignment of a manager's personal goals with those of the organization.

**goodness of fit** the degree of association between Y and X (cost and activity). It is measured by how much of the total variability in Y is explained by X.

**growth stage** the stage in a product's life cycle when sales increase at an increasing rate.

**guided ecoefficiency** a competing environmental cost paradigm to ecoefficiency that sees pollution as a form of economic inefficiency and views properly designed environmental regulations as a way to stimulate innovation such that environmental performance and economic efficiency will simultaneously improve.

## H

**half-year convention** a convention that assumes a newly acquired asset is in service for one-half of its first taxable year of service, regardless of the date that use of it actually began.

**hedging** one way of ensuring against gains and losses on foreign currency exchange.

**heterogeneity** refers to the greater chances for variation in the performance of services than in the production of products.

**hidden quality costs** opportunity costs resulting from poor quality.

**high-low method** a method for fitting a line to a set of data points using the high and low points in the data set. For a cost formula, the high and low points represent the high and low activity levels. It is used to break out the fixed and variable components of a mixed cost.

**homogeneous cost pool** a collection of overhead costs associated with activities that have the same

process, have the same level, and can use the same activity driver to assign costs to products.

**Hoshin Kanri** a competing strategic-based performance management system that is widely used in Japan; known as *directed* planning.

**hypothesis test of cost parameters** a statistical assessment of a cost formula's reliability that indicates whether the parameters are different from zero.

**hypothetical sales value** an approximation of the sales value of a joint product at split-off. It is found by subtracting all separable (or further) processing costs from the eventual market value.

## I

**ideal standards** standards that reflect perfect operating conditions.

**impact analysis** a life cycle assessment step where the environmental impacts of different product (or process) designs are compared and evaluated.

**improvement analysis** a life cycle assessment step where efforts are made to reduce the environmental impacts revealed by the inventory and impact steps.

**incentives** the positive or negative measures taken by an organization to induce a manager to exert effort toward achieving the organization's goals.

**incremental (or baseline) budgeting** the practice of taking the prior year's budget and adjusting it upward or downward to determine next year's budget.

**incremental unit-time learning curve model** decreases by a constant percentage each time the cumulative quantity of units produced doubles.

**independent projects** projects that, if accepted or rejected, will not affect the cash flows of another project.

**independent variable** a variable whose value does not depend on the value of another variable. For example, in the cost formula  $Y = F + VX$ , the variable  $X$  is an independent variable.

**indirect costs** costs that cannot be traced to a cost object.

**industrial value chain** the linked set of value-creating activities from basic raw materials to end-use customers.

**inelastic demand** when a price increase (decrease) of a certain percent is associated with a quantity decrease (increase) of less than that percent.

**innovation process** a process that anticipates the emerging and potential needs of customers and creates new products and services to satisfy those needs.

**input tradeoff efficiency** the least-cost, technically efficient mix of inputs.

**inseparability** an attribute of services that means that production and consumption are inseparable.

**intangibility** refers to the nonphysical nature of services as opposed to products.

**intercept parameter** the fixed cost, representing the point where the cost formula intercepts the vertical axis. In the cost formula  $Y = F + VX$ ,  $F$  is the intercept parameter.

**interim quality performance report** a comparison of current actual quality costs with short-term budgeted quality targets.

**interim quality standards** a standard based on short-run quality goals.

**internal business process perspective** a Balanced Scorecard viewpoint that describes the internal processes needed to provide value for customers and owners.

**internal constraints** limiting factors found within the firm.

**internal failure costs** costs incurred because products and services fail to conform to requirements where lack of conformity is discovered prior to external sale.

**internal linkages** relationships among activities within a firm's value chain.

**internal measures** measures that relate to the processes and capabilities that create value for customers and shareholders.

**internal rate of return** the rate of return that equates the present value of a project's cash inflows with the present value of its cash outflows (i.e., it sets the NPV equal to zero). Also, the rate of return being earned on funds that remain internally invested in a project.

**introduction stage** a product life cycle stage characterized by preproduction and startup activities, where the focus is on obtaining a foothold in the market.

**inventory** the money an organization spends in turning raw materials into throughput.

**inventory analysis** a life cycle assessment step where the quantities and types of materials, energy, and environmental releases are described.

**investment center** a responsibility center in which a manager is responsible for revenues, costs, and investments.

## J

**job-order cost sheet** a document or record used to accumulate manufacturing costs for a job.

**job-order costing system** a cost accumulation method that accumulates manufacturing costs by job.

**joint products** two or more products, each having relatively substantial value, that are produced simultaneously by the same process up to a "split-off" point.

**joint venture** a type of partnership in which investors co-own the enterprise.

**just-in-case inventory management** a traditional inventory model based on anticipated demand.

**just-in-time inventory management** the continual pursuit of productivity through the elimination of waste.

**just-in-time (JIT) manufacturing** a demand-pull system that strives to produce a product only when it is needed and only in the quantities demanded by customers.

**just-in-time (JIT) purchasing** a system that requires suppliers to deliver parts and materials just in time to be used in production.

## K

**kaizen costing** efforts to reduce the costs of existing products and processes.

**kaizen standard** an interim standard that reflects the planned improvement for a coming period.

**Kanban system** an information system that controls production on a demand-pull basis through the use of cards or markers.

**keep-or-drop decision** a relevant costing analysis that focuses on keeping or dropping a segment of a business.

## L

**lag measures** outcome measures or measures of results from past efforts.

**lead measures (performance drivers)** factors that drive future performance.

**lead time** for purchasing, the time to receive an order after it is placed. For manufacturing, the time to produce a product from start to finish.

**learning and growth (infrastructure) perspective** a Balanced Scorecard

viewpoint that defines the capabilities that an organization needs to create long-term growth and improvement.

**learning curve** an important type of nonlinear cost curve that shows how the labor hours worked per unit decrease as the volume produced increases.

**learning rate** expressed as a percent, it gives the percentage of time needed to make the next unit, based on the time it took to make the previous unit.

**life-cycle assessment** identifying the environmental consequences of a product through its entire life cycle and then searching for opportunities to obtain environmental improvements.

**life-cycle cost assessment** assigning costs and benefits to environmental consequences and improvements.

**life-cycle cost management** actions taken that cause a product to be designed, developed, produced, marketed, distributed, operated, maintained, serviced, and disposed of so that life cycle profits are maximized.

**life-cycle costs** all costs associated with the product for its entire life cycle.

**line position** a position in an organization filled by an individual who is directly responsible for carrying out the organization's basic objectives.

**linear programming** a method that searches among possible solutions until it finds the optimal solution.

**long run** period of time for which all costs are variable, i.e., there are no fixed costs.

**long-range quality performance report** a performance report that compares current actual quality costs with long-range targeted quality costs (usually in the 2%–3% range).

**loose constraints** constraints whose limited resources are not fully used by a product mix.

**loss** a cost that expires without producing any revenue benefit; a negative profit.

## M

**make-or-buy decision** a decision that focuses on whether a component (service) should be made (provided) internally or purchased externally.

**management accounting** a cost management subsystem that is concerned with how cost information

and other financial and nonfinancial information should be used for planning, controlling, and decision making.

**manufacturing cells** a plant layout containing machines grouped in families, usually in a semicircle.

**maquiladoras** manufacturing plants located in Mexico that process imported materials and reexport them to the United States.

**margin** the ratio of net operating income to sales.

**margin of safety** the units sold or expected to be sold or sales revenue earned or expected to be earned above the break-even volume.

**market share** the proportion of industry sales accounted for by a company.

**market share variance** the difference between the actual market share percentage and the budgeted market share percentage multiplied by actual industry sales in units times budgeted average unit contribution margin.

**market size** the total revenue for the industry.

**market size variance** the difference between actual and budgeted industry sales in units multiplied by the budgeted market share percentage times the budgeted average unit contribution margin.

**marketing expense budget** a budget that outlines planned expenditures for selling and distribution activities.

**marketing (selling) costs** those costs necessary to market and distribute a product or service.

**markup** a percentage applied to base cost for the purpose of calculating price; the markup includes desired profit and any costs not included in the base.

**master budget** the collection of all area and activity budgets representing a firm's comprehensive plan of action.

**materials requisition form** a document used to identify the cost of raw materials assigned to each job.

**maturity stage** the stage in a product's life cycle when sales increase at a decreasing rate.

**maximum transfer price** the transfer price that will make the buying division no worse off if an input is acquired internally.

**measurement costs** the costs associated with the measurements required by a cost management system.

**method of least squares** a statistical method to find a line that best fits

a set of data. It is used to break out the fixed and variable components of a mixed cost.

**minimum transfer price** the transfer price that will make the selling division no worse off if the intermediate product is sold internally.

**mix variance** the difference in the standard cost of the mix of actual material inputs and the standard cost of the material input mix that should have been used.

**mixed costs** costs that have both a fixed and a variable component.

**modified accelerated cost recovery system (MACRS)** a method of computing annual depreciation; defined as double-declining-balance method.

**monopolistic competition** a market that is close to the competitive market. There are many sellers and buyers, low barriers to entry, but the products are differentiated on some basis.

**monopoly** a market in which barriers to entry are so high that there is only one firm selling a unique product.

**multinational corporation (MNC)** a corporation for which a significant amount of business is done in more than one country.

**multiple regression** the use of least-squares analysis to determine the parameters in a linear equation involving two or more explanatory variables.

**multiple-period quality trend report** a graph that plots quality costs (as a percentage of sales) against time.

**mutually exclusive projects** projects that, if accepted, preclude the acceptance of competing projects.

**myopic behavior** managerial actions that improve budgetary performance in the short run at the expense of the long-run welfare of the organization.

## N

**net income** operating income less taxes, interest expense, and research and development expense.

**net present value** the difference between the present value of a project's cash inflows and the present value of its cash outflows.

**net realizable value method** a method of allocating joint production costs to the joint products based on their proportionate share of eventual revenue less further processing costs.

**noncost methods** methods that make no attempt to cost the by-product

or its inventory, but instead make some credit either to income or to main product.

**nondiscounting models** capital investment models that identify criteria for accepting or rejecting projects without considering the time value of money.

**nonfinancial measures** measures expressed in nonmonetary units.

**noninventoriable (period) costs** costs expensed in the period in which they are incurred.

**nonproduction costs** those costs associated with the functions of selling and administration.

**non-unit-based drivers** factors, other than the number of units produced, that measure the demands that cost objects place on activities.

**non-unit-level drivers** explain the changes in cost as factors other than units change.

**non-value-added activities** activities either unnecessary or necessary but inefficient and improvable.

**non-value-added costs** costs that are caused either by non-value-added activities or the inefficient performance of value-added activities.

**normal activity level** the average activity level that a firm experiences over more than one fiscal period.

**normal cost of goods sold** the cost of goods sold figure obtained when the per-unit normal cost is used.

**normal costing system** a cost measurement system in which the actual costs of direct materials and direct labor are assigned to production and a predetermined rate is used to assign overhead costs to production.

## O

**objective function** the function to be optimized, usually a profit function; thus, optimization usually means maximizing profits.

**objective measures** measures that can be readily quantified and verified.

**observable quality costs** those quality costs that are available from an organization's accounting records.

**oligopoly** a market structure characterized by a few sellers and high barriers to entry.

**operating assets** those assets used to generate operating income, consisting usually of cash, inventories, receivables, property, plant, and equipment.

**operating budgets** budgets associated with the income-producing activities of an organization.

**operating expenses** the money an organization spends in turning inventories into throughput.

**operating income** revenues minus expenses from the firm's normal operations. Income taxes are excluded.

**operating leverage** the use of fixed costs to extract higher percentage changes in profits as sales activity changes. Leverage is achieved by increasing fixed costs while lowering variable costs.

**operation costing** a costing system that uses job-order costing to assign materials costs and process costing to assign conversion costs.

**operational activities** day-to-day activities performed as a result of the structure and processes selected by an organization.

**operational control information system** a cost management subsystem designed to provide accurate and timely feedback concerning the performance of managers and others relative to their planning and control of activities.

**operational cost drivers** those factors that drive the cost of operational activities.

**operational productivity measure** measures that are expressed in physical terms.

**operations process** a process that produces and delivers existing products and services to customers.

**opportunity cost approach** a transfer pricing system that identifies the minimum price that a selling division would be willing to accept and the maximum price that a buying division would be willing to pay.

**optimal solution** the feasible solution that produces the best value for the objective function (the largest value if seeking to maximize the objective function; the minimum otherwise).

**ordering costs** the costs of placing and receiving an order.

**organizational cost drivers** structural and procedural factors that determine the long-term cost structure of an organization.

**outsourcing** the payment by a company for a business function that was formerly done in-house.

**overapplied overhead** the overhead variance resulting when applied overhead is greater than the actual overhead cost incurred.

**overhead** all production costs other than direct materials and direct labor.

**overhead budget** a budget that reveals the planned expenditures for all indirect manufacturing items.

**overhead variance** the difference between the actual overhead and the applied overhead.

## P

**partial productivity measurement** a ratio that measures productive efficiency for one input.

**participative budgeting** an approach to budgeting that allows managers who will be held accountable for budgetary performance to participate in the budget's development.

**payback period** the time required for a project to return its investment.

**penetration pricing** the pricing of a new product at a low initial price, perhaps even lower than cost, to build market share quickly.

**perfectly competitive market** a market (or industry) characterized by many buyers and sellers—no one of which is large enough to influence the market—a homogeneous product, and easy entry into and exit from the industry.

**performance** refers to how consistently and well a product functions.

**performance reports** accounting reports that provide feedback to managers by comparing planned outcomes with actual outcomes.

**period costs** costs such as marketing and administrative costs that are expensed in the period in which they are incurred.

**perishability** an attribute of services that means that they cannot be inventoried but must be consumed when performed.

**perquisites** a type of fringe benefit over and above salary which is received by managers.

**physical flow schedule** a schedule that accounts for all units flowing through a department during a period.

**physical units method** a method of allocating joint production costs based on each product's share of total units.

**planning** setting objectives and identifying methods to achieve those objectives.

**pool rate** the overhead costs for a homogeneous cost pool divided by the practical capacity of the activity driver associated with the pool.

**postaudit** a follow-up analysis of an investment decision.



- post-purchase costs** the costs of using, maintaining, and disposing of a product incurred by the customer after purchasing a product.
- postsales service process** a process that provides critical and responsive service to customers after the product or service has been delivered.
- practical activity level** the output a firm can achieve if it is operating efficiently.
- practical capacity** the efficient level of activity performance.
- predatory pricing** the practice of setting prices below cost for the purpose of injuring competitors and eliminating competition.
- predetermined overhead rate** estimated overhead divided by the estimated level of production activity. It is used to assign overhead to production.
- present value** the current value of a future cash flow. It represents the amount that must be invested now if the future cash flow is to be received assuming compounding at a given rate of interest.
- prevention costs** costs incurred to prevent defects in products or services being produced.
- price discrimination** charging different prices to different customers for essentially the same commodity.
- price gouging** when firms with market power (i.e., little or no competition) price products “too high.”
- price skimming** a pricing strategy in which a higher price is charged at the beginning of a product’s life cycle, then lowered at later phases of the life cycle.
- price standards** the price that should be paid per unit of input.
- price (rate) variance** the difference between standard price and actual price multiplied by the actual quantity of inputs used.
- price volume variance** the difference between actual volume sold and expected volume sold multiplied by the expected price.
- price-recovery component** the difference between the total profit change and the profit-linked productivity change.
- primary activity** an activity that is consumed by a product or customer (i.e., a final cost object).
- primary key** the attribute that uniquely identifies each row of data in a table.
- prime cost** the sum of direct materials cost and direct labor cost.
- private costs** environmental costs that an organization has to pay.
- process** a series of activities (operations) that are linked to perform a specific objective.
- process-costing principle** the period’s unit cost is computed by dividing the costs of the period by the output of the period.
- process creation** installing an entirely new process to meet customer and financial objectives.
- process improvement** incremental and constant increases in the efficiency of an existing process.
- process innovation (business reengineering)** the performance of a process in a radically new way with the objective of achieving dramatic improvements in response time, cost, quality, and other important competitive factors.
- process productivity analysis** an approach that measures activity productivity by treating activities as inputs to a process and relating the input to the process’s output.
- process value analysis** an analysis that defines activity-based responsibility accounting, focuses on accountability for activities rather than costs, and emphasizes the maximization of systemwide performance instead of individual performance.
- process value chain** the innovation, operations, and postsales service processes.
- producing departments** a unit within an organization responsible for producing the products or services that are sold to customers.
- product cost** a cost assignment method that satisfies a well-specified managerial objective.
- product diversity** the situation present when products consume overhead in different proportions.
- product life cycle** the time a product exists—from conception to abandonment; the profit history of the product according to four stages: introduction, growth, maturity, and decline.
- product stewardship** the practice of designing, manufacturing, maintaining, and recycling products to minimize adverse environmental impacts.
- product-level activities** activities performed that enable the various products of a company to be produced.
- production budget** a budget that shows how many units must be produced to meet sales needs and satisfy ending inventory requirements.
- production (or product) costs** those costs associated with the manufacture of goods or the provision of services.
- production Kanban** a card or marker that specifies the quantity the preceding process should produce.
- production report** a report that summarizes the manufacturing activity for a department during a period and discloses physical flow, equivalent units, total costs to account for, unit cost computation, and costs assigned to goods transferred out and to units in ending work in process.
- productivity** producing output efficiently, using the least quantity of inputs possible.
- productivity measurement** assessment of productivity changes.
- profile measurement** a series or vector of separate and distinct partial operational measures.
- profit center** a responsibility center in which a manager is responsible for both revenues and costs.
- profit-linkage rule** for the current period, calculate the cost of the inputs that would have been used in the absence of any productivity change and compare this cost with the cost of the inputs actually used. The difference in costs is the amount by which profits changed because of productivity changes.
- profit-linked productivity measurement** an assessment of the amount of profit change—from the base period to the current period—attributable to productivity changes.
- profit-volume graph** a graphical portrayal of the relationship between profits and sales activity.
- pseudoparticipation** a budgetary system in which top management solicits inputs from lower-level managers and then ignores those inputs. Thus, in reality, budgets are dictated from above.

## Q

- quality of conformance** conforming to the design requirements of the product.
- quality product or service** a product which meets or exceeds customer expectations.
- quantity standards** the quantity of input allowed per unit of output.

## R

- rate variance** *see* price variance.
- realized external failure costs** the environmental costs caused by

environmental degradation and paid for by the responsible organization.

**reciprocal method** a method that simultaneously allocates service costs to all user departments. It gives full consideration to interactions among service departments.

**relational structure** a data structure that uses a table to represent the overall logical view within a data base.

**relative value unit (RVU)** a homogeneous work unit that measures the relative amount of time required to perform a procedure.

**relevant costs (revenues)** future costs (revenues) that differ across alternatives.

**relevant range** the range over which an assumed cost relationship is valid for the normal operations of a firm.

**reliability** the probability that the product or service will perform its intended function for a specified length of time.

**reorder point** the point in time at which a new order (or setup) should be initiated.

**replacement cost method** the cost of by-products utilized within the plant are valued at the opportunity cost of purchasing or replacing the products in question.

**required rate of return** the minimum rate of return that a project must earn in order to be acceptable. Usually corresponds to the cost of capital.

**resale price method** a transfer price acceptable to the Internal Revenue Service under Section 482. The resale price method computes a transfer price equal to the sales price received by the reseller less an appropriate markup.

**research and development expense budget** a budget that outlines planned expenditures for research and development.

**residual income** the difference between operating income and the minimum required dollar return on a company's operating assets.

**resource drivers** factors that measure the demands placed on resources by activities and are used to assign the cost of resources to activities.

**responsibility accounting** a system that measures the results of each responsibility center and compares those results with some measure of expected or budgeted outcome.

**responsibility center** a segment of the business whose manager is accountable for specified sets of activities.

**return on investment (ROI)** the ratio of operating income to average operating assets.

**revenue center** a responsibility center in which a manager is responsible only for sales.

**revenue-producing life** the time a product generates revenue for a company.

**robustness** exact conformance to the target value (no tolerance allowed).

**ropes** actions taken to tie the rate at which raw material is released into the plant (at the first operation) to the production rate of the constrained resource.

## S

**safety stock** extra inventory carried to serve as insurance against fluctuations in demand.

**sales budget** a budget that describes expected sales in units and dollars for the coming period.

**sales mix** the relative combination of products (or services) being sold by an organization.

**sales mix variance** the sum of the change in units for each product multiplied by the difference between the budgeted contribution margin and the budgeted average unit contribution margin.

**sales price variance** the difference between actual price and expected price multiplied by the actual quantity or volume sold.

**sales-revenue approach** an approach to CVP analysis that uses sales revenue to measure sales activity. Variable costs and contribution margin are expressed as percentages of sales revenue.

**sales-to-production-ratio method** allocates joint costs in accordance with a weighting factor that compares percentage of sales with percentage of production.

**sales-value-at-split-off method** a method of allocating joint production costs based on each product's share of revenue realized at the split-off point.

**scattergraph** a plot of  $(X, Y)$  data points. For cost analysis,  $X$  is activity usage and  $Y$  is the associated cost at that activity level.

**scatterplot method** a method to fit a line to a set of data using two points that are selected by judgment. It is used to break out the fixed and variable components of a mixed cost.

**secondary activity** an activity that is consumed by intermediate cost

objects such as materials and primary activities.

**sell or process further** relevant costing analysis that focuses on whether or not a product should be processed beyond the split-off point.

**sensitivity analysis** a "what if" technique that examines altering certain key variables to assess the effect on the original outcome.

**separable costs** costs that are easily traced to individual products.

**sequential (or step) method** a method that allocates service costs to user departments in a sequential manner. It gives partial consideration to interactions among service departments.

**serviceability** the ease of maintaining and/or repairing a product.

**services** a task or activity performed for a customer or an activity performed by a customer using an organization's products or facilities.

**setup costs** the costs of preparing equipment and facilities so that they can be used for production.

**seven-year assets** assets with an expected life for depreciation purposes of seven years; equipment, machinery, and office furniture fall into this category.

**shadow price** the amount by which throughput will increase for one additional unit of scarce resource.

**short run** period of time in which at least one cost is fixed.

**simplex method** an algorithm that identifies the optimal solution for a linear programming problem.

**single-loop feedback** information about the effectiveness of strategy implementation.

**slope parameter** the variable cost per unit of activity usage, represented by  $V$  in the cost formula  $Y = F + VX$ .

**source document** a document that describes a transaction and is used to keep track of costs as they occur.

**special-order decisions** decisions that focus on whether a specially priced order should be accepted or rejected.

**split-off point** the point at which the joint products become separate and identifiable.

**spot rate** the exchange rate of one currency for another for immediate delivery.

**staff position** a position in an organization filled by an individual who provides support for the line function; thus, a staff person is

- only indirectly involved with the basic objectives of an organization.
- standard bill of materials** a listing of the type and quantity of materials allowed for a given level of output.
- standard cost per unit** the per-unit cost that should be achieved given materials, labor, and overhead standards.
- standard cost sheet** a listing of the standard costs and standard quantities of direct materials, direct labor, and overhead that should apply to a single product.
- standard hours allowed** the direct labor hours that should have been used to produce the actual output (Unit labor standard  $\times$  Actual output).
- standard quantity of materials allowed** the quantity of materials that should have been used to produce the actual output (Unit materials standard  $\times$  Actual output).
- static budget** a budget for a particular level of activity.
- step-cost function** a cost function in which cost is defined for ranges of activity usage rather than point values. The function has the property of displaying constant cost over a range of activity usage and then changing to a different cost level as a new range of activity usage is encountered.
- step-fixed costs** a step-cost function in which cost remains constant over wide ranges of activity usage.
- step-variable costs** a step-cost function in which cost remains constant over relatively narrow ranges of activity.
- stock option** the right to purchase a certain amount of stock at a fixed price.
- stock-out costs** the costs of insufficient inventory.
- strategic cost management** the use of cost data to develop and identify superior strategies that will produce a sustainable competitive advantage.
- strategic decision making** choosing among alternative strategies with the goal of selecting a strategy or strategies that provide a company with reasonable assurance of long-term growth and survival.
- strategic positioning** the process of selecting the optimal mix of cost leadership, differentiation, and focusing strategies.
- strategic-based responsibility accounting system (strategic-based performance management system)** a responsibility accounting system that translates an organization's mission and strategy into operational objectives and measures for four different perspectives: the financial perspective, the customer perspective, the process perspective, and the learning and growth (infrastructure) perspective.
- strategy** choosing the market and customer segments, identifying critical internal business processes at which the firm must excel to increase customer value, and selecting the individual and organizational capabilities required to achieve the firm's internal, customer, and financial objectives.
- stretch targets** targets that are set at levels that, if achieved, will transform the organization within a period of three to five years.
- structural activities** activities that determine the underlying economic structure of the organization.
- subjective measures** measures that are nonquantifiable whose values are judgmental in nature.
- sunk cost** a past cost—a cost already incurred.
- supplies** materials necessary for production but that do not become part of the finished product or are not used in providing a service.
- supply chain management** the management of products and services from the acquisition of raw materials through manufacturing, warehousing, distribution, wholesaling, and retailing.
- support departments** a unit within an organization that provides essential support services for producing departments.
- sustainable development** development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- system** a set of interrelated parts that performs one or more processes to accomplish specific objectives.
- T**
- tactical cost analysis** the use of relevant cost data to identify the alternative that provides the greatest benefit to the organization.
- tactical decision making** choosing among alternatives with only an immediate or limited end in view.
- Taguchi loss function** a function that assumes any variation from the target value of a quality characteristic causes hidden quality costs.
- tangible products** goods produced by converting raw materials through the use of labor and capital inputs such as plant, land, and machinery.
- target cost** the difference between the sales price needed to achieve a projected market share and the desired per-unit profit.
- target costing** a method of determining the cost of a product or service based on the price that customers are willing to pay. Also referred to as price-driven costing.
- tariff** the tax on imports levied by the federal government.
- technical efficiency** point at which for any mix of inputs that will produce a given output, no more of any one input is used than is absolutely necessary.
- testable strategy** set of linked objectives aimed at an overall goal that can be restated into a sequence of cause-and-effect hypotheses.
- theoretical activity level** the maximum output possible for a firm under perfect operating conditions.
- theory of constraints** method used to continuously improve manufacturing activities and nonmanufacturing activities.
- three-year assets** assets with an expected life for depreciation purposes of three years; most small tools fall into this category.
- throughput** the rate at which an organization generates money through sales.
- time buffer** the inventory needed to keep the constrained resource busy for a specified time interval.
- time ticket** a document used to identify the cost of direct labor for a job.
- total budget variance** the difference between the actual cost of an input and its planned cost.
- total (overall) sales variance** the sum of the sales price and sales volume variances.
- total preventive maintenance** a program of preventive maintenance that has zero machine failures as its standard.
- total product** the complete range of tangible and intangible benefits a customer receives from a product.
- total productive efficiency** the point at which technical and price efficiency are achieved.
- total productivity measurement** an assessment of productive efficiency for all inputs combined.
- total quality control** an approach to managing quality that demands

the production of defect-free products.

**total quality management** a philosophy that requires managers to strive to create an environment that will enable workers to manufacture perfect (zero-defects) products.

**traceability** the ability to assign a cost directly to a cost object in an economically feasible way using a causal relationship.

**transaction drivers** measure the number of times an activity is performed, such as the number of treatments and the number of requests.

**transaction risk** the possibility that future cash transactions will be affected by changing exchange rates.

**transfer prices** the price charged for goods transferred from one division to another.

**transfer pricing problem** the problem of finding a transfer pricing system that simultaneously satisfies the three objectives of accurate performance evaluation, goal congruence, and autonomy.

**transferred-in cost** the cost of goods transferred in from a prior process.

**translation (or accounting) risk** the degree to which a firm's financial statements are exposed to exchange rate fluctuation.

**treasurer** the financial officer responsible for the management of cash and investment capital.

**turnover** the ratio of sales to average operating assets.

## U

**underapplied overhead** the overhead variance resulting when the actual overhead cost incurred is greater than the applied overhead.

**unfavorable (U) variance** a variance produced whenever the actual input amounts are greater than the budgeted or standard allowances.

**unit standard cost** the product of these two standards: Standard price  $\times$  Standard quantity (SP  $\times$  SQ).

**unit-based drivers** factors that measure the demands placed on unit-level activities by products.

**unit-level activities** activities that are performed each time a unit is produced.

**unit-level drivers** explain changes in cost as units produced change.

**unrealized external failure (societal) costs** environmental costs caused by an organization but paid for by society.

**unused capacity** the difference between the acquired activity capacity and the actual activity usage.

**unused capacity variance** the difference between acquired capacity (practical capacity) and actual capacity.

**usage (efficiency) variance** the difference between standard quantities and actual quantities multiplied by standard price.

## V

**value chain** the set of activities required to design, develop, produce, market, distribute, and service a product (the product can be a service).

**value-added activities** activities that are necessary to achieve corporate objectives and remain in business.

**value-added costs** costs caused by value-added activities.

**value-added standard** the optimal output level for an activity.

**value-chain analysis** identifying and exploiting internal and external linkages with the objective of strengthening a firm's strategic position.

**variable budget** *see* flexible budget.

**variable cost ratio** variable costs divided by sales revenue. It is the proportion of each sales dollar needed to cover variable costs.

**variable costing** a costing method that assigns only variable manufacturing costs to the product; these costs include direct materials, direct labor, and variable overhead. Fixed overhead is treated as a period cost and is expensed in the period incurred.

**variable costs** costs that in total vary in direct proportion to changes in a cost driver.

**variable overhead efficiency variance** the difference between the actual direct labor hours used and the standard hours allowed multiplied by the standard variable overhead rate.

**variable overhead spending variance** the difference between the actual variable overhead and the budgeted variable overhead based on actual hours used to produce the actual output.

**velocity** the number of units that can be produced in a given period of time (e.g., output per hour).

**vendor Kanban** a card or marker that signals to a supplier the quantity of materials that need to be delivered and the time of delivery.

## W

**weight factor** a value used to assign weights to various joint products in accordance with their relative size, difficulty to produce, etc.

**weighted average cost of capital** the proportionate share of each method of financing is multiplied by its percentage cost and summed.

**weighted average costing method** a unit-costing method that merges prior-period work and costs with current-period work and costs.

**what-if analysis** *see* sensitivity analysis.

**withdrawal Kanban** a marker or card that specifies the quantity that a subsequent process should withdraw from a preceding process.

**work in process** consists of all partially completed units found in production at a given point in time.

**work orders** used to collect production costs for product batches and to initiate production.

**work-in-process inventory file** the collection of all job cost sheets.

## Y

**yield variance** the difference in the standard material cost of the standard yield and the standard material cost of the actual yield.

## Z

**zero defects** a quality performance standard that requires all products and services to be produced and delivered according to specifications.

**zero-base budgeting** a method of budgeting in which the prior year's budgeted level is not taken for granted. Existing operations are analyzed, and continuance of the activity or operation must be justified on the basis of its need or usefulness to the organization.