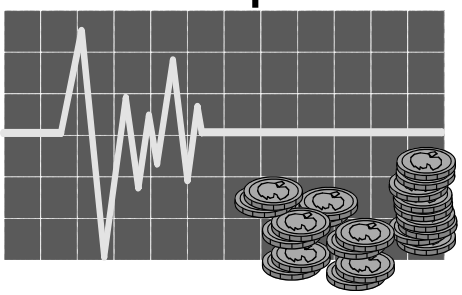
Chapter 1

How Management Accounting Information Supports Decision Making



QUESTIONS

1-1 Management accounting is a discipline that designs planning and performance measurement systems, using financial and nonfinancial information, to help an organization develop and implement its strategy. The information must be relevant and helpful, and customized to serve multiple purposes, such as making decisions, allocating resources, and monitoring, evaluating, and rewarding performance. Information for the "plan" and "do" steps of the PDCA cycle includes prospective data on costs, profits, efficiency, and quality associated with alternative ways to produce or provide goods or services. Information for the "check" and "act" steps includes assessments of how well the organization is achieving its objectives. Common information requirements include measures of cost, quality, profitability, and timeliness.

1-2 Two examples of financial management accounting information are the cost of producing a product and the cost of delivering a service. Measures related to customer satisfaction and loyalty and innovation are two examples of non-financial management accounting information.

1-3 Both the disciplines of financial accounting and management accounting are based on quantitative information about an entity's operations. However, these two disciplines can be differentiated as follows:

- Financial accounting is retrospective in nature while management accounting is both retrospective and prospective in nature.
- Financial accounting is primarily oriented towards external stake-holders such as investors, creditors, and regulators. On the other hand, the discipline of management accounting is oriented towards meeting the decision making needs of the parties who are internal to the organization, namely managers and employees.
- Financial accounting has to be consistent with the rules framed by the standard setters and the regulatory authorities. Management accounting is

not guided by any rigid rules or form; it depends on the managers' judgements and decisions.

1-4 Strategic planning refers to the process of choosing a strategy that provides the best fit between the organization's environment and its internal resources in order to achieve the organization's objectives. Selecting a strategy forces managers to make choices about what markets the organization should target and how the organization will compete in those markets.

1-5 The relevant management accounting tools are

(a) Cost-volume-profit analysis
(b) Budget
(c) Relevant cost analysis

1-6 Given a selected strategy, the organization needs management accounting information to help implement the strategy, allocate resources for the strategy, communicate the strategy, and link employees and operational processes to achieve the strategy. As the strategy gets executed, management accounting information provides feedback about where it is working and where it is not, and guides actions to improve the performance from the strategy.

1-7 The ***plan*** step of the PDCA cycle defines the organization's purpose, selects the focus and scope of its strategy, and determines actions to achieve the organization's objectives.

The ***do*** step involves implementing a chosen course of action.

The ***check*** step includes two components: measuring and monitoring ongoing performance and taking short-term actions based on the measured performance.

In the ***act*** step, managers take actions to lower costs, change resource allocations, improve the quality, cycle time, and flexibility of processes, modify the product mix, change customer relationships, and redesign and introduce new products. They reward (and occasionally punish) employees based on performance. As these new actions get implemented, the management team will eventually return to the planning step to assess whether its previous plan is still valid and worth continuing, or whether it has become time to adapt the plan or perhaps introduce a new strategic plan. This launches the enterprise on another trip around its PDCA cycle.

1-8 Individuals react to measurements. They focus on the variables and behavior being measured and spend less attention on those not measured. In designing

feedback mechanisms, measurements and goals, management accountants and the management team must understand and anticipate the reactions of individuals to feedback information, measurements, and goals. When the measurements are not only used for information, planning, and decision-making but also for control, evaluation, and reward, employees and managers may take unexpected and undesirable actions to influence their score on the performance measure.

As management accounting systems change in order to introduce or redesign cost and performance measurement systems, people familiar with the previous systems may resist. People who have acquired expertise in the old system may fear that their experience and expertise will not be transferable to the new system. People may also have concerns that decisions and actions based on information the old system produced, may no longer seem valid given information produced by a new management accounting system. Thus, people may feel threatened by a new management accounting system and react against the change.

EXERCISES

1-9 These questions are designed to generate discussion about the broad scope of contemporary management accounting information, cross-functional interaction in designing management accounting information systems, and the range of needed skills and knowledge in today's business environment.

"Accounting" conveys a notion of recording and reporting for stewardship, or accountability for use of assets or incurrence of expenses. Accurate, timely, and relevant information about the economics and performance of organizations is crucial to organizational success or good stewardship over entrusted assets. Management accounting information is one of the primary informational sources for decision making, improvement, and control in organizations. Effective management accounting systems can create considerable value to organizations by providing timely and accurate information about the activities required for their success. Traditionally, management accounting information that helped support decision making and efficient use of resources was primarily financial. In recent times, management accounting information has expanded to encompass operational or physical (nonfinancial) information, such as quality and process times, as well as more subjective measurements, such as customer satisfaction, employee capabilities, and new product performance.

To develop effective management accounting information systems, the system

designers must understand the different decision and feedback information needs of the organization's operators/employees, middle managers, and senior executives. The different needs include operational control, product and customer costing, management control, and strategy implementation and control. In addition to technical financial skills and ability to communicate well with people in other functional areas, a person handling the described responsibilities needs an understanding of the organization's operations and processes, the organization's strategy and competitive environment (including customers and noncustomers), and the behavioral implications of performance measurements. In response to the challenging and continually changing environment facing organizations all over the world, management accounting systems must continue to undergo changes to enhance organizational performance. Thus, the management accountant, for example, as part of the management team, needs adaptability and the ability to manage both the technical and behavioral aspects of change.

1-10 Strategy is about an organization making choices about what it will do and what it will not do. Once a strategy has been selected, the organization needs management accounting information for the following purposes:

- to help implement the strategy
- to allocate resources for the strategy
- to communicate the strategy
- to link employees and operational processes to achieve the strategy.

As the strategy gets executed, management accounting information provides feedback about where it is working and where it is not, and guides actions to improve the performance from the strategy. The iterative strategy execution process can be viewed through the lens of the plan-do-check-act cycle.

1-11 Obviously, there is no single "correct" answer to this question, but the instructor should be able to generate an interesting discussion with the class to brainstorm on the financial and nonfinancial measures used by managers at the different levels of a fast food organization. The answers below are meant to be suggestive but are certainly not definitive, complete, or comprehensive. The goal should be to engage the students in recognizing the different types of information—financial and non-financial, daily and monthly, disaggregate and aggregate—that managers at different levels of the organization will find helpful in performing their jobs.

(a) The manager of the local fast food outlet will want information on the quality of the food being served, the length of time customers typically must wait before being served, materials and food scrapped, number of customers served per hour, average revenue per customer served,

stockouts of ingredients, errors in serving customers, employee absenteeism and tardiness, and daily revenues and operating expenses. Most of these measures should be available daily to detect quickly any deterioration in performance.

(b) The regional manager will want to see operating summaries, perhaps weekly, of all the outlets in his or her region. These summaries will include number of customers served, average revenue per customer and mix of products ordered. The manager will also be interested in weekly reports on the profitability of each store—revenues less operating expenses and the standard cost of materials sold. The regional manager will probably have inspectors visiting the outlets monthly to report on the cleanliness, quality of food served, and response time of service. Periodically, surveys will be distributed randomly to customers asking for their opinion on the food and service.

(c) The Vice President of Operations will want summary statistics, probably monthly, on the productivity and efficiency of the retail outlets. These statistics could include revenues per employee, an operating expense ratio (the ratio of operating expenses to revenues), and summary reports of quality, cleanliness, and customer response times.

The Vice President of Marketing will want monthly summaries of all customer surveys, the number of customers visiting each establishment, the mix of products being ordered, and the average revenue per customer transaction. If available, statistics on market share in the relevant industry segment would be desirable.

The President will likely want much of the information being received by the Vice Presidents of Operations and Marketing. In addition, he or she may want weekly summaries of financial performance. Monthly or quarterly the President will wish to see financial measures, such as total profitability and return on investment, with, perhaps, the ability to measure profitability and ROI on a regional or even local basis.

1-12 As in the previous question, there is no single "correct" answer. The instructor should try to generate an interesting discussion with the class to brainstorm on the measures used, both financial and non-financial, by the different managers in the hospital. The answers below are meant to be suggestive but are certainly not definitive, complete, or comprehensive. The goal should be to engage the students in recognizing the different types of information—financial and non-

financial, daily and monthly, disaggregate and aggregate—that managers at different levels of the hospital will find helpful in performing their jobs.

(a) (1) The manager of a patient unit will want to track the number of patients each day in the unit, and their predicted demands for meals, housekeeping, medication, and other nursing services that day, based on their treatments required, and whether they need to be fed or assisted in basic toilet functions. In this way, the manager can adjust the supply of nurses and other personnel, and the mix of skills required in these personnel, to anticipated patient demands. The manager may want indicators of quality problems—incorrect medications provided, inappropriate meals delivered, and excessive delays in responding to patients' needs and requests—so that the root causes of these problems can be identified and efforts made to eliminate these causes. Most of this information will be provided daily, and will be non-financial. Perhaps a daily report of total personnel expenses used each day would be helpful to signal the importance of continually adjusting the mix of personnel required to the expected demand. For example, it would be inefficient to have highly-paid registered nurses changing sheets, a task that could be done equally well by much lower paid orderlies. But low paid or inexperienced personnel should not be performing patient-care functions that require the skill levels of experienced registered nurses.

(2) On a weekly basis, the manager of the radiology department would monitor the consumption of supplies—such as X-ray films—and the utilization of expensive equipment, such as CAT scanners and Magnetic Resonance Imaging (MRI) machines. The manager would also monitor the staffing of the department to ensure that radiology technicians and other skilled personnel were available to perform scheduled procedures, as well as emergency (unexpected) procedures. The manager should monitor any excess supply of personnel. Quality measures would include the number and percentage of procedures that had to be redone, stockouts of critical supplies, and the quality of images created (perhaps the manager could measure the complaints of the radiologists who had to examine and interpret the images). Process times—time required to perform each procedure—would be tracked, and delay time—the time between when the patient showed up for a procedure and the time when the procedure was actually initiated would provide an indicator of customer service. Weekly (or

monthly) the manager would want financial summaries of the cost of supplies used and of the department's personnel expenses, normalized by the quantity and mix of services provided. Supplies and personnel expenses would be among the principal controllable items by the department manager. Weekly summaries of rework and delays would also be useful indicators of trends in departmental operating performance. Depending on the job description, the manager may be responsible for process times of staff conducting radiological examinations, CAT scans, or MRI procedures.

(b) The manager of the nursing service would likely get daily summaries of the staffing at each of the patient units, and the number of patients in each unit. She might question any department that appears overstaffed or understaffed, allowing the departmental manager (see answer to (a)(1) above) to explain deviations by the mix of specific patient demands in that unit that day. Weekly and monthly summaries of number, mix, and total cost of personnel by each nursing unit, again normalized by patient-days (or, better, a measure of weighted patient demands for nursing service) would provide a summary indication of the ability of each unit manager to adjust staffing levels to actual demands. Weekly and monthly summaries of absenteeism or tardiness in each patient unit may help identify where employee morale and commitment to the hospital are above and below normal levels. Weekly and monthly summaries of supplies used at each patient unit will provide control as to whether the departmental managers are monitoring the consumption of these supplies at their units.

The manager might establish a procedure in which discharged patients are asked to evaluate the quality of the service they received during their stay. This would enable the manager to compare the quality of the service provided (as perceived by the customer—in this case the patient) by each of the units under her control. A similar survey might be done with the house staff and attending physicians to get their perception about the quality of the professional service being delivered by patient unit personnel. Monthly summaries of these customer surveys could indicate where improvement might be needed and where a departmental manager has succeeded in creating highly satisfied patients and physicians. The practices being used by this manager can then be disseminated to the other departmental managers.

The manager will also want a weekly and monthly report on the staffing levels at the specialty units, normalized by the number of procedures or the number of patient hours delivered in each unit. Physical counts (number of procedures or patient hours per employee) will provide a measure of whether these units are over-staffed or under-staffed, and personnel cost per procedure or per patient hour will provide an indicator of whether the skill mix of personnel is being appropriately adjusted. A similar report on supplies used at each unit will supply information about consumption of expensive materials and supplies.

(c) The chief executive officer of the hospital will want to see aggregate operating statistics such as occupancy rates, personnel expenses per patient day, number of full-time-equivalent personnel per patient day, and trends in admissions and length-of-stay. Financial measures will be important—operating revenues and expenses, accounts receivable (or average collection period), and utilization of expensive resources—such as specialized equipment and intensive care units. Financial data are probably useful on a monthly basis, but key operating statistics like occupancy rates, admissions backlogs, and average length-of-stay could be provided daily. Monthly, the CEO could attempt to compare her own hospital's admissions and occupancy rates with that of other hospitals in the region, to see how her market share is holding up.

Aggregate measures of satisfaction—from attending physicians as well as patients—would be helpful in spotting whether performance is improving or deteriorating.

1-13 Quality reflects how well the product conforms to promised performance. The following examples are intended to be *illustrative rather than comprehensive*.

Item	Elements of Quality
Television set	Number of warranty claims, cost of warranty repairs, customer satisfaction surveys, evaluation by independent testing laboratory
University course	Student evaluation scores, number of complaints, student performance on common examinations
Meal in an exclusive restaurant	Number of complaints, customer satisfaction surveys, percentage of customers retained, restaurant reviews, tips as an average percent of meal cost
Carry-out meal from a restaurant	Number of complaints, customer satisfaction surveys, percentage of customers retained

Container of milk	Number of customer complaints, percentage of customers retained, customer satisfaction surveys, purity analysis
Visit to the doctor	Patient recovery rates, number of visits to have same ailment treated, number of patient complaints
Trip on an airplane	Customer satisfaction surveys, percentage of customers retained, number of complaints, evaluation by travelers' association
Pair of jeans	Customer satisfaction surveys, percentage of customers retained, number of complaints, durability of jeans
Novel	Number of books sold, number of sales to purchasers of author's past novels, book reviews
University text	Number of typographical errors, number of conceptual errors, durability

PROBLEMS

1-14 One principal advantage of separating the financial reporting from the management accounting department is that employees who are dedicated to their particular tasks develop expertise in these tasks. The financial reporting accountants can concentrate on the financial accounting and tax standards that must be used to stay in compliance with the country's accounting and tax regulations. They can also serve as liaisons with the external auditors. The financial reporting department can be responsible for the company's basic transaction and general ledger systems, ensuring that these systems reliably capture data and have adequate internal controls.

The management accounting department can work closely with the functional areas (for example, manufacturing, marketing, and engineering) that use management accounting information. This will ensure that the reports are timely and relevant for these internal users. If users wish to use specific accounting conventions (interest on capital employed, asset valuation and depreciation using current, not historical values), the management accountants can incorporate these conventions in their reports. Also, weekly and monthly operating summaries for internal information and performance measurement may not have to abide by financial accounting requirements (for example, on inventory valuation procedures). The management accountants can include nonfinancial operating information in the reports they prepare for employees and managers, and they can become familiar with how to access information from all the organization's information systems and databases, not just the general ledger. Also, some of the information might be judgmental, subjective,

and based on rough estimates. This information might be accurate enough for certain internal uses, but not reliable enough for external reporting and external auditing requirements.

The disadvantage of separate accounting departments is that the information prepared for internal use may not be immediately compatible with external reporting requirements. Therefore, an additional and perhaps costly and time-consuming reconciliation process may be required to translate from statements prepared for internal use into statements suitable for external reporting. Also by having separate departments, more total accounting and finance personnel may be required since unused capacity in one department (or function) cannot be easily or quickly mobilized to perform duties for the other department.

1-15 (a) The controller is attempting to respond to the needs of internal users (managers of operating activities and marketing managers) to create information that is most relevant to these users' needs. The company president or marketing manager may want to ensure that current prices cover not just the historical costs of providing resource capacity but what the costs would be today based on today's investment costs. In addition, the president or marketing manager may have wanted to see whether today's prices cover not only today's capital acquisition cost but also provide an adequate return on the capital invested in the equipment. The modifications of using replacement cost depreciation and interest on invested capital require the controller to deviate from the generally accepted accounting principles used for external financial statements. This situation illustrates how a management accountant treats an internal customer as the primary customer of the management accounting reports and therefore customizes the internal information to the expressed preferences of this internal customer.

(b) Management accountants should treat as their primary customers the organization's managers and their information and decision needs. These needs may not always be consistent with GAAP. With modern computer systems, the cost of reconciling from managerial information to GAAP information should be relatively small. A benefit-cost analysis should generally favor producing the information that will be most useful to the managers, and leave for the financial reporting group the task of translating and reconciling from the managerial information to the financial reporting information.

1-16 Financial information provides a summary of the costs of resources used and outputs produced in a process. Thus it is a valuable complement to direct (physical) measures of the quality, cycle time, and throughput of a process.

Consider a process that has several inputs (materials, energy, machine time, and labor). Workers can attempt to improve the process so that less of any given input is used to produce the same output. But without knowing the relative cost of the various inputs, they have little idea about which input would be most useful for gaining productivity improvements. They could be devoting all of their time and effort to reducing the labor content of the process, when labor may represent less than 5 percent of costs, whereas material or machine-time inputs may represent 40–50% of process costs, with no attention made to improve the utilization (productivity) of materials and equipment. Without some type of financial model, employees have little idea about the relative value of various inputs and outputs of a process, and consequently have no guidance for priorities on where productivity improvement can have the biggest impact.

As another point, it is often not possible to simultaneously reduce defects, speed up the process and lower the cost of the process. For example, one could attempt to speed up a production process, but this could lead to lower quality and higher maintenance costs. Financial information helps to guide trade-offs among quality, responsiveness to customers, output, and cost. For example, by having financial information, front-line employees are in a better position to consider small, local investments that could improve quality, responsiveness, and output. Financial information also helps employees set priorities about where cost reduction and quality improvement would be most beneficial. Some managers have estimated a price for nonconforming production, so that defective outputs have higher costs associated with them. Such information provides high visibility to the cost of nonconformance, and can be extremely helpful in guiding workers' energy and attention to devising methods to reduce the incidence of nonconforming outputs. Lacking financial information, employees may focus on improving relatively minor aspects of operating processes that will not have much bottom-line impact for the organization.

CASES

Some of the mini-cases in the textbook have been drawn from Harvard Business School teaching cases. It may seem daunting to ask students in an introductory management accounting class to be able to "solve" cases written for the experienced MBA students attending top graduate business schools. The point, however, is not to solve the case (even top MBA students rarely agree on a solution to most cases). The goal is to motivate and stimulate students to think about the broad applicability of management accounting information in many different settings. As such, they should provide good illustrations of the applications for management accounting information and concepts discussed in the textbook. We have provided the names and numbers of the cases so that instructors can, at their option, order the cases (call 1–800–545–7685 or access http://hbsp.harvard.edu/romeo) and get a richer background for the actual context.

1-17 (a) An employee desiring to serve customers efficiently and effectively would be interested in the time it takes to perform specified tasks and the quality of the work performed. If standard times exist for routine jobs that Super Printing performs, the employee can compare actual and standard times to determine potential areas of improvement. Information on the actual time to perform jobs can be reported per job or per day. Information on time and resources needed to perform nonroutine jobs can be collected as they occur, to provide input to future pricing and staffing decisions. Assessment of the quality of the work performed should include feedback on whether each customer's instructions were met, and whether the output was high quality. This feedback can be obtained through formal or informal feedback each time a customer picks up a job, or through formal written feedback, such as comment cards. Information on the frequency and reasons for rework or customer dissatisfaction with the output should help the employee in continuous improvement efforts.

(b) Julie, the retail outlet (store) manager, will want to monitor overall outlet profitability. This starts with subtracting all operating expenses and purchasing costs from store revenues, but this is much too aggregate to be very useful. The manager will want information on operational control (quality, timeliness, and efficiency), business line and customer costs, and financial and nonfinancial performance measurements at the store level. For example, the manager will want day-to-day operating statistics on the efficiency and productivity of the various machines (copies per hour); machine availability and downtime; product defects, rework, customer returns, and defective merchandise; and response times to customer requests. She will want accurate information about business line cost and profitability (black-and-white copying, color copying,

facsimile services, document preparation, computer services, and office supplies), and profitability by major customer type (the business school's MBA and executive programs, faculty research, school administration, and other institutional accounts). The manager can use such information in making pricing decisions for services and customers, including volume discounts or surcharges for orders with special requirements and services. The information about the most profitable business lines and customer segments will help direct marketing efforts and spending on equipment, space, and inventory to their most profitable uses. To monitor sales trends, the store manager could collect information about sales by hour of day, day of week, and month of year to guide decisions about which hours the store should be open, and also to staff the store appropriately for predictable fluctuating demands. Possible nonfinancial strategic measures for the outlet include market share and satisfaction for targeted customers; time, quality, and cost of internal processes; new products and services to offer, and employee skills and motivation.

(c) The president of Super Printing would look at profitability, perhaps monthly, for every outlet (store) in the chain. The president would want operating statistics that would enable him or her to compare the profitability and operating performance of each business line across stores. This internal benchmarking information suggests opportunities for improvement that can be shared across stores. Competitive information could include the market share of Super Printing relative to their competitors. Competitive pricing information on key products and services would also be valued. The president should also have established information mechanisms by which consumer complaints (and satisfaction) are directed to his or her attention.

1-18 Case based on "Romeo Engine Plant" ***Harvard Business School Case #9-194-032***; for a description of the "old production environment," see "Peoria Engine Plant" ***Case #9-193-082***.

(a) In the old environment, workers did what they were told to do. These directions included standards on the quantity and mix of inputs to use, the expected yield from inputs used to outputs produced, and the operating procedures to follow. In many of these types of environments, the workers were not even supplied with measures of their inputs used and outputs produced, but they would be chastised by their supervisors should yields and productivity fall below standard, or if defects and scrap exceeded budgeted levels. Therefore, the information needs of workers

were minimal—just what to produce and what amount and type of inputs to use.

(b) In the new environment, workers need information after each batch of productive work on the amount of defects, scrap, and downtime, and ratios of output produced to inputs consumed. Any defect or unexpected scrap will be analyzed immediately to determine the cause, so that the cause can be fixed as soon as possible. Consistent sources of downtime or defects will be identified through histograms and Pareto diagrams so that employees' problem-solving energies can be directed and focused on the root causes that are leading to the highest percentage of problems. Special computer programs may be written to reveal the bottleneck resource to the workers so that they can concentrate on fixing any persistent problems with this bottleneck resource and finding ways to expand its productive capacity. In this way, productive capacity of the equipment and processes can be continually increased without additional capital investment. Information on yields and productivity will be supplied and compared, via trend analysis, to recent experience. If continuous improvement is not visible on the trend lines, the employees may take, as a team task, the job of brainstorming and making suggestions to find new ways to improve yields and productivity. In the old environment, workers were told exactly what to do and were rarely given information or feedback about their performance. The new environment, in contrast, tasks workers with generating the ideas and solutions leading to continual reductions in defects, downtime, and scrap, and associated increases in productivity—the ratio of good items produced to inputs consumed.

1-19 Case drawn from an episode reported in "Analog Devices: The Half-Life System" ***Harvard Business School Case #9-190-061.***

This production manager has expressed very clearly how he uses a mix of financial and nonfinancial information for his task. He disdains cost variance reports because he wants to focus on continuous improvement of performance. The cost variance reports evaluate performance against preset standards that he does not consider relevant for this continuous improvement objective. Also the cost variances are, at best, after the fact; they are the results, not the drivers, of the actions he is taking. The manager wants to focus on improving the drivers of those results.

Interestingly, he does want to see one set of financial measures on a daily basis: orders booked and sales (billings). The ratio of these two financial measures, commonly referred to as the book-to-billings ratio, is a common measure in the

semiconductor industry. When greater than one, the ratio indicates an increase in future business activity. When the ratio is less than one, business activity will contract in the near future. So the production manager is getting a snapshot each day about whether activity in his department will be increasing or decreasing in the near future. The other business level measure he looks at daily is on-time-delivery (OTD), a critical customer-based measure. Deteriorating OTD performance could be caused by delays in production. So the production manager is checking on whether business unit performance is improving or deteriorating, and can calibrate this performance against operating statistics in his own department.

Thus, this production manager's choices are informative in answering the question of how the management accountant should determine an appropriate blend of financial and nonfinancial measures for operating people. The production manager focuses on leading indicators of future activity, drivers of cost and performance, and a measure of customer satisfaction.

Specifically, the production manager is supplied two financial measures that enable him to calculate a leading indicator of future business activity in his department, and a nonfinancial measure, on-time delivery, that provides an ex post indicator of how his department's performance (on quality, first-pass yields, and cycle time) may have influenced a key business unit measure of customer satisfaction. For feedback on his department's performance, the manager looks weekly at quality indicators and yields. This is where he feels that traditional cost variance information is least useful to him. He wants to concentrate on the drivers of cost and performance—defects, yields, and scrap —figuring that if these improve the costs will eventually follow.

It is interesting that monthly he wants to look at his departmental spending. He can control spending on discretionary items like travel and maintenance, and wants feedback, but only monthly, on his department's spending performance. Also, if improved quality and yields are being realized, then he should eventually be able to reduce staffing in his department, and this reduction will show up in lower levels of departmental expenses. Thus, he views cost reduction as a long-term goal, wants periodic but not daily or weekly feedback on expenses, and, in the short run concentrates on a few key drivers—quality and yield—of long-term performance.

1-20 For government and nonprofit agencies, the financial information provides little useful information, except that the agency did or did not overspend its budgeted or authorized amount. An agency would not be considered to have had a terrific year because it stayed within $10 of its budget, or spent 10% less than its budget. For government and nonprofit agencies, success is not measured in financial terms. Success should be measured in the outcomes achieved. This requires the agency to

have a clear definition of its mission and its targeted customer base. With such a mission and a targeted set of constituencies, it can then formulate objectives and measures to motivate and focus employees towards achieving organizational objectives. Ex post, the agency can measure the outcomes from its activities to see whether it has delivered on its mission and objectives.

A comprehensive performance measurement system for a government or nonprofit agency can include such financial measures as operating expenses as a targeted percentage of total funds raised or disbursed. For nonprofits, the financial perspective could also include measurement of funds raised relative to targeted amounts, and increases in contributions per donor.

The performance measurement system can also include measures of interest to the specific beneficiaries of the agency or the donors who provide funds for the agency. Consider a group like the Nature Conservancy or the Sierra Club. From the perspective of donors to these organizations (the customers), performance on objectives can be measured, for example, by acres preserved and species protected. United Way organizations may measure improvements in the local community served by the number of agencies supported by United Way. One would need to think about objectives and measures for both the providers of funds to the organization (taxpayers or donors) and the recipients of the services provided by the organization.

The performance measurement system can also include measures to monitor the business processes required to meet the objectives of donors (or taxpayers) and beneficiaries. Such objectives could include high quality delivery of services, speedy and zero defect responses to donors and beneficiaries, innovative services for recipients, and recognition of donors and volunteers.

Finally, the performance measurement system can include measures on learning, growth, and innovation. Relevant objectives include improving the skills and motivation of employees, and improving access to information about donors, beneficiaries, and volunteers.