CHAPTER 1

Cost Management: Control and Profitability

After reading this chapter you will be able to

- Understand the objectives of an effective cost management system (CMS)
- Explain the relationship between control and profitability
- Explain the connection points between cost and financial accounting systems
- Articulate the design features of a value-focused CMS
- Distinguish between cost and performance management systems

All executives and managers account for cost. In various ways, all business professionals manage cost, and most managers engage in capital investment decisions, forecasting, pricing, and product or service management. All these business activities are deeply embedded in the work of cost accounting. Cost-related tasks consume a significant amount of management time at all levels of the organization.

A business professional must understand the organization's cost accounting practices to competently manage a specified area and understand how personal accountabilities are calculated and tracked. An accounting instructor with considerable experience in the field always gave her MBA students the same advice, "Learn the language of

accounting. It's the language of business, and if you don't learn it, some little bean counter wearing a green eyeshade will blow your grand marketing or operations idea right out of the water!"[1]

Bellwether organizations that employ advanced management systems still run their accounting systems—"keep their books"—according to basic cost accounting principles. Importantly, conventional practices shape advanced techniques; therefore, more mature methods cannot be fully understood without reference to their predecessors. As a baseline, an organization's executives must establish management/cost accounting practice foundations that serve decision making and operations, first, and financial accounting, second, before moving to advanced systems. To accomplish this, executives need the ability to distinguish system alternatives. This chapter addresses these requirements.

The Profit Imperative: Defining the Objectives of Cost Management

Profitability, variously interpreted as net income, equity value, and return on investment is a results-focused indicator watched more carefully than any other performance measurement category. But if these measurements depict results, what measurements show the dimensions of performance for the processes that lead to those results? At the core, profit has only two components: revenue and cost. To understand how a cost management system works, here are some key terms to be familiar with:

- *Cost.* An outflow of a resource, whether in cash, as a payable, a rendered service, or as a trade or barter, that is consciously made with expectation of benefit to the organization: goods, property, or services acquired.
- *Cost accounting.* The accounting profession is divided into two major branches: (1) financial and (2) management (or managerial) accounting. The later is synonymous with cost accounting.

The term "management" refers to the comparatively internal focus of the cost accounting field as compared with the external focus of financial accounting. The word "traditional," when used to describe cost accounting methods, refers to the standard practices that are taught in basic management accounting courses and practiced in most North American firms. The standard practices include cost systems and procedures, methods of determining costs, points of cost accountability, forecasts, cost comparisons (e.g., standard cost systems), and budgets (operational, project, and capital). The purpose of cost accounting is to assist in the wise and prudent stewardship of overall organizational resources.

- *Cost and expense distinctions.* Both costs and expenses are expenditures. For the remainder of this book, the word "expenditures" will be used to identify an organization's total outflow of assets in all forms. Chapter 2 will further clarify important distinctions between cost, expense, and expenditure. In the standard income statement of a for-profit firm, costs typically refer to the categories of material, labor, and overhead appearing above the income statement's gross margin line (revenue minus cost). See Exhibit 1.1 for an example of the income statement components for a manufacturing firm. Expenditures typically called *operating expenses* are displayed below the gross margin line. On the income statement, the material, labor, and overhead items are called *cost of goods sold* (COGS). Operating expenses consist of monetary or asset outlays for general, administrative, selling, marketing, and other functions deemed to be indirectly related to production. Operating expenses are commonly abbreviated as SG&A for sales, general and administrative.
- *Cost management.* The use of cost accounting systems and methods to guide current and future operations toward specified objectives; the analysis and interpretation of cost data is critical to the decision-making process.

- *Cost management system (CMS).* An expenditure information architecture that tracks, monitors, reports, and provides decision-quality information and insights. A CMS is less constrained by exacting professional standards and reporting formats than financial accounting; therefore, a CMS can and should be customized to match an organization's internal environment and specific cost structures.

  A CMS sets direction for resource consumption priorities and makes course corrections by emphasizing operations first and accounting practices second. A CMS specifically answers the demands of the profit imperative when it aligns employee spending behaviors with the organizational strategy. The purpose of the CMS is to *understand the nature and behavior of cost, and thereby manage valuable assets wisely through optimizing limited resources.*

  The chief CMS responsibility is to promote improvement in cost structure. The CMS should:

  - Support understanding of the nature and behavior of cost (and the humans doing the spending).
  - Promote, track, and give feedback on value creation and continuous improvement.
  - Assist management in wise use of resources.

- *Cost types.* Management accountants created cost types in an attempt to understand the nature and behavior of different resources. Cost types are designations given to categories of resource expenditures. They are based on assumptions about the ways that resources are consumed in relation to the activities to which they are applied. They are also based on the purposes for which the resources are used. Some traditional cost types include:

- *Fixed.* Costs assumed not to vary with production/service unit volume
- *Variable.* Costs assumed to vary with production/service unit volume
- *Semi-fixed/variable, also called step-fixed/variable.* Costs that vary at incremental volume levels
- *Direct.* Costs that can be clearly linked, and therefore assigned to, specific product/service units
- *Indirect.* Costs that cannot easily be linked to specific product/service units, and therefore, must be allocated to production/services based on a selected cost driver

Financial Accounting

Financial accounting is the branch of the accounting field concerned with formal, aggregate reporting of transactions related to the income statement (revenue minus expense equals profit/loss), the balance sheet (assets, liabilities, and owners' equity) and other related statements (e.g., working capital, cash flow). Standard report forms used across companies and an external, shareholder focus, characterize financial accounting. The primary statement in financial accounting is the balance sheet. See Exhibit 1.2 for an example of the balance sheet components for a manufacturing firm. This exhibit is best read as a companion to Exhibit 1.1 to compare the fundamental similarities and differences in these two essential reporting systems.

Value

When accountants talk about *value* they refer to "any preferred object or interest therein"; and *accounting valuation* is "a judgment expressing or implying preference, or relative approval or disapproval."[2] Organizations exist to become the provider of preference by conveying value

EXHIBIT 1.1

The Basic Components and Terminology of a Traditional Income Statement

Income Statement ➡ also known as ➡	**Profit & Loss Statement, P&L Operating Statement**
Revenue	Sales
Deductions from Revenue	Credits, Allowances, Discounts
Net Revenue	Net Sales
Cost of Goods Sold (COGS)	Cost of Sales, Cost of Goods Purchased
Material	Raw material, Direct material
Labor	Direct labor
Overhead	Indirect manufacturing costs
Gross Margin	Contribution Margin
Operating expenses	Sales, General & Administrative (SG&A)
Sales and Marketing	
General & Admin	May be broken down to functions
Net Income Before Tax (NIBT)	Net Profit Before Tax
Tax	Many colorful expletives
Net Income After Tax (NIAT)	Net Profit, Income

to customers, clients, and constituents. This is as true of a spiritual organization with a humanitarian mission as it is of a large corporation focused chiefly on shareholder wealth.

The path to value is different for each organization, and value has many definitions beyond those of the accountant. In the last half of the twentieth century, the focus on value became rooted in the idea of creating shareholder value. What do customers, shareholders and employees value? What do they really want? How can we differentiate ourselves from the competitor in terms of value? Should we be as concerned about internal constituents (i.e., employees) as we are about customers and shareholders? How do all the converging interests of those with a stake in the organization's success or failure work together to create a mutually satisfying sense of value?

EXHIBIT 1.2

A Simplified Traditional Balance Sheet Format

THE BALANCE SHEET EQUATION: Assets = Liabilities + Owners' Equities

		Also known as
ASSETS		
	Current Assets	**Short-term Assets**
	Cash	
	Temporary Investments	Short-term investments
	Accounts Receivable	Sales receivable, A/R
	Inventories	Subcategories: Raw materials, work-in-process, finished goods
	Prepaid expenses	
	Maturing portion of Long-term Loans	Current debt; payments receivable
	Total Current Assets	
	Long-term Assets	
	Buildings	Fixed Assets, Property Plant & Equipment (PP&E)
	Land	
	Machinery & Equipment	
	(Less depreciation on above categories)	
	Loans and Mortgages	
	Total Assets	
LIABILITIES		
	Current Liabilities	
	Accounts Payable	A/P
	Wages & Salaries	Payroll, Benefits
	Debt-Current Portion	Maturing Debt, Current Debt
	Long-term Liabilities	
	Loans	
	Mortgages	
	Total Liabilities	
		STOCKHOLDER EQUITY, NET WORTH
OWNERS' EQUITIES	Paid-in capital	Stock at par value, stated value
	Additional paid-in capital	Capital surplus
	Retained Earnings	Earned surplus, based on income/loss

None of these questions has an easy answer, but one fact is certain: The first and most common cause of enterprise failure is, simply, overspending—a basic failure to manage expenditures flowing out and revenues flowing in. The solution to overspending behaviors involves little more than the skill set required to balance a checkbook. Creating value for the complex organization requires clear cost management objectives embedded in a cost management system.

Cost Management Objectives

Nearly all business professionals know the major components of a general ledger (G/L) system, or at least two of the important reports generated by it: the income statement and the balance sheet. Far fewer

managers can describe a cost management system—and with good reason. An effective CMS is customized to match an organization's internal environment and specific cost structures. While an experienced financial professional, and many managers, can move from company to company and quickly understand the financial statements of each, even practiced accountants need considerably more time to understand the intricacies of different cost management systems from company to company. A CMS is less constrained by exacting professional standards and reporting formats than are financial systems, with a few exceptions like the regulated cost guidelines of government contractors.

Importantly, the CMS sets direction for resource consumption priorities and makes course corrections by emphasizing operations first and accounting practices second. A CMS specifically answers the demands of the profit imperative by aligning employee spending behaviors with the organizational strategy.

Four-Stage Model

A good context for understanding the CMS is to ask not *what it is*, but rather *how it functions.* This book acknowledges and borrows from the approach used by Robert S. Kaplan and Robin Cooper in their 1998 book, *Cost & Effect*. Their "four-stage model of cost system evolution" describes how a CMS typically evolves over the life cycle of a maturing organization. This book will use their four-stage model, adapted in Exhibit 1.3, to contrast conventional and advanced cost management systems and techniques so that readers have a practical context for using the ideas presented in this text as they apply to current practices in the reader's workplace.[3]

If a Stage I system is not adequate for routine reporting, it cannot hope to deliver information on product, customer, and operations costing. Such systems offer little in support of strategic control. Stage II systems

EXHIBIT 1.3

Four-Stage Model of Cost System Development

Stage One	Stage Two
• Broken • Many errors with large variances • Inadequate external reporting • Inadequate product, service, and customer cost information • Inadequate operational and strategic control	• Driven by financial reporting • Meets audit standards • External reports tailored to financial reporting needs • Inaccurate and hidden product, service, and customer costs • Strategic feedback limited and delayed
Stage Three	**Stage Four**
• Specialized • Shared databases but stand-alone systems with informal linkages • Same as Stage Two • Product, service, and customer costs in separate ABM systems • Strategic/operational control with several separate performance measurement systems	• Integrated • Fully linked databases • Financial reporting systems create external reports • Product, service, and customer costs integrated in ABM systems • Strategic/operational control within an integrated performance measurement system

Adapted from Robert S. Kaplan and Robin Cooper, *Cost and Effect: Using Integrated Cost Systems to Drive Profitability and Performance* (Boston: Harvard Business School Press, 1998).[3]

are driven by financial reporting requirements, and they meet financial accounting standards. However, they remain severely limited in decision-quality data. They often distort both costs and profits, and they are not timely in delivering feedback.

Stage III systems are specialized, in that the cost and financial accounting systems use the same databases; however, the two systems remain isolated and specialized in application. In this stage, activity-based costing (ABC) and performance measurement systems often emerge. Stage IV systems are integrated, and present a unified reporting format supportive of operational strategy. Financial and operations data, as well as budget and actual information, are all linked.

Organizations today remain spread across the Four-Stage spectrum. A healthy number of companies have moved to Stage III; but, it remains rare to find a true Stage IV company, although many claim to be. An enterprise resource planning (ERP) implementation does not guarantee a Stage IV environment. Every executive and manager first needs to determine which stage current accounting systems are in, and then progressively move through each stage to the integrated level, whether by using the Kaplan/Cooper model or some other proven, logical method. Kaplan and Cooper caution against the high failure rate of organizations that try to jump stages.[4]

Operations Focus Is Primary

The primary focuses of an effective CMS are operations and the support of management decision making. In addition to routine bookkeeping (see Chapter 2), the CMS objectives include, but are not limited, to ten characteristics. A CMS that supports decision making must:

1. Display past, present, and future expenditures.
2. Mirror the organization's cost structure and behaviors to support ongoing improvement and control.
3. Support realistic, reliable strategic planning and explicit management intention.
4. Influence individual and team behaviors toward goal accomplishment.
5. Monitor and control resource use against mission and strategic intentions.
6. Provide warning when unhealthy financial thresholds are imminent.
7. Facilitate the repositioning of resources.
8. Hold specific individuals and groups accountable for standards of performance.

9. Assist in analyzing key discrete points of profitability: customer, process, product, and region.
10. Display a 360-degree unbiased view of the organization's cost structure, one that is understood and actually used in decision-making by all executives and managers.

1. Display Past, Present, and Future Expenditures. This characteristic means that historical, current, and prospective (i.e., forecast, simulation) expenditure data are accessible, timely, and accurate. *Accessibility* is primarily judged on ease of use. In other words, can nonfinancial managers make use of the system's data and information? *Accuracy* is based on compliance with cost system design and with data-gathering integrity. *Timeliness* is based on proximity to real-time information. In the Kaplan/Cooper four-stage model, Stage I systems frequently fail all these criteria and almost never address future expenditures except in budgetary terms. Stage II systems are more reliable for past and present data but often fall short in accessibility and timeliness. Only in Stage III do CMS designs begin to fulfill all criteria. Obviously, if executives work with less than the full timeline (i.e., past, present, and future), their focus will most often be on historical data, while current and future cost conditions elude them.

2. Mirror the Organization's Cost Structure and Behaviors to Support Ongoing Improvement and Control. The CMS design must serve operations and management decision making first, and bookkeeping second. An effective cost system endeavors to clearly exhibit the sources, movement, use, and funding of organizational resources. The system must reflect how resources are actually used and how resource use aligns with or deviates from management intentions and plans. In the Kaplan/Cooper model, only Stages III and IV possess these attributes.

3. Support Realistic, Reliable Strategic Planning and Explicit Management Intention. In practice, profit generation has only two

components: revenue/sales and expenditures (i.e., costs, expenses). Therefore, when planning for profitability (or breakeven) CMS information that fairly and accurately represents expenditure information promotes realistic planning and achievement targets. Again, only Stage III and IV cost management systems possess these attributes.

4. Influence Individual and Team Behaviors toward Goal Accomplishment. This attribute is among the most important for a CMS. If people do not find the cost system relevant to their daily activities and long-term responsibilities, they will not use it. Relevance includes accountability for predetermined performance standards, the prudent management of resources, and visibility of companywide cost structures and behaviors. A Stage III CMS provides opportunity for achieving this desired criterion; however, only Stage IV provides the level of integration needed to maximize this goal.

5. Monitor and Control Resource Use Against Mission and Strategic Intentions. This means that the cost management system assists in aligning and allocating resources where they will best serve management's strategic intentions. The managers of organizations in Stages I and II of the Kaplan/Cooper model overlook this characteristic when designing the CMS, if they give any thought to system design at all. When different managers perform budgeting and strategic planning processes at different times, the compartmentalization undermines strategic achievements that depend on appropriate resource alignment. Imagine an executive team energized from a strategic planning retreat returning to day-to-day operations, issuing mandates, directives, and a trainload of new projects, all without addressing resource allocation, budgets, or realignment of people, time, and facilities. This is a strategic plan scenario doomed to frustration and failure.

6. Provide Warning When Unhealthy Financial Thresholds Are Imminent. A thoughtfully designed CMS provides an early-warning

system that identifies and averts overspending. It may also signal the need for additional resources due to volume and/or environmental changes. Often, CMS Stages I and II provide reactive reporting long after a decision opportunity for changing an operational process issue has passed. Imagine the frustration of a manufacturing manager who is held accountable for subpar performance in material and labor efficiencies, but who receives efficiency reports two to four weeks after the "damage" is done. Only Stage III and IV organizations rectify these demoralizing dynamics.

7. Facilitate the Repositioning of Resources. This CMS characteristic partners with number 6 by overseeing the movement and realignment of resources to adapt to strategic changes. In many companies, once an annual budget is set, woe to the manager who overspends it. If the strategic plan and the budget live separate lives, how can managers be expected to satisfy both?

8. Hold Specific Individuals and Groups Accountable for Standards of Performance. A recurring error in strategic planning is the failure to assign responsibility for action plans and performance targets. When set up properly, the CMS signals expectations for cost targets *and* identifies the individuals/groups responsible for meeting those targets. The CMS links cost targets with appropriate nonfinancial measures that discourage managers from working on cost and financial performance in isolation from other important indicators. (See Chapter 7 on performance measurement.)

9. Assist in Analyzing Discrete Points of Profitability: Customer, Process, Product, and Region. A financial accounting system provides an aggregate consolidated view of profitability. An effective CMS provides an analytical extension that searches for suspected areas of underperformance related to specific customers, product lines, market sectors, and other identifiable objects of analysis. Although a Stage II CMS may

provide rudimentary historical data on these targets of analysis, only Stage III and IV systems provide decision-quality reporting through use of such techniques as activity-based costing (see Chapter 5).

10. Display a 360-Degree Unbiased View of the Organization's Cost Structure that is understood and actually used in decision-making by all executives and managers. A CMS that provides open-book views of companywide cost structures used concurrently by all managers to advance the organizational community's well-being as a whole encourages management creativity in resource use, as well as optimal use of available capacity. In most cases, only a Stage IV CMS can satisfy this attribute requirement.

To be an effective management decision-making guide, the cost management system has to be much more than a set of bookkeeping procedures, and it must not be the sole source of information for decision making. *Never use a cost management system in isolation for operational decision making.* Just as financial accounting delivers an important but narrow stream of results information, cost accounting also displays a critical but incomplete viewpoint. Nonfinancial, noncost information is part of any mature cost analysis. This is particularly true for making business development decisions. For example, a research and development (R&D) function usually shows continuous losses when subjected to a profit-and-loss, P&L (i.e., income statement), approach. However, the R&D function value remains invisible until seen in the context of potential future revenue and cost streams.

Control and Profitability

Every business professional wants to manage well by making the right decisions. Good decisions lead to profit. Effective management and profitability rely mutually on systems that control employee behavior. In turn, the control system receives accounting reports that detail

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Primary Focus: Financial or Operational?

Quick! Which perspective is more important in your organization, financial or operational? This pop quiz has no right or wrong answer; however, if you can honestly answer "both" without stopping to think about it, your organization is fortunate. The blend of both financial and operational expertise creates synergy that supports better financial outcomes.

To determine your organization's perspective, take the following assessment. The question marks indicate the point in the query to insert "financial," "operations," or "both" choices. The more checks in the both column, the better. The more split or lopsided your answers, the more opportunity you have to create greater synergy between finance and operations expertise.

	Financial	Operations	Both
1 Our ? executives conduct our strategic planning process.	___	___	___
2 Our ? professionals manage our budget process.	___	___	___
3 Our ? performance measurements are most important.	___	___	___
4 Our ? executives select our critical performance measures.	___	___	___
5 Primarily, ? concerns drive our organization.	___	___	___
6 The ? managers usually win internal disagreements.	___	___	___

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	False	True
7 We manage with one system that addresses both finance and operations.	___	___
8 Our operations managers see the work our accountants do as value-added.	___	___
9 Generally, our accountants are seen as good problem solvers.	___	___
10 Our measurements are used for making improvements, as opposed to tracking and checking up on people.	___	___

efficiency and profitability. Commonly, financial results are the "bottom line" of the control system of most organizations.

This is the time to distinguish cost accounting and cost management. Cost accounting can be thought of in terms of structured data elements; cost management can be thought of in terms of the information yielded by analyzing cost accounting data elements. As defined earlier, cost accounting includes cost systems and procedures, methods of determining costs, points of cost accountability, forecasts, cost comparisons (e.g., standard cost systems), and budgets (operational, project, and capital). Interestingly, in many companies, these and other functionalities exist but are not actively managed. Unless cost managers create meaning out of the cost accounting data and reports, a good portion of cost accounting effort is wasted, and critical information for decision making remains hidden. Significant resources can be applied to cost accounting work, but if executives view cost accounting simply as part of financial accounting, meaning and insight remain hidden within transaction data.

Only cost management can extract and create insight and meaning from raw cost data.

The cost accounting obligation is simple in concept: *Provide accurate cost information.* Implementing a cost accounting system that is accessible, aimed at the right targets of analysis, and supportive of management decision making is a more sophisticated task. The cost management responsibility is equally clear: *Promote improvement in cost structure.* Making good on this prospect is even more challenging.

Make no mistake, accounting is part of the organizational control system. The primary purpose of the control system is to *protect the organization's assets.* The important place that the accounting system occupies in the overall *control* system becomes more intriguing upon consideration of some basic accounting terminology. One common accounting definition of *assets* is "costs that have not yet been used." The accounting term for this is *unexpired costs.* These unexpired costs represent current or future value to the organization. *Controller* is the title of the head accountant in many organizations. Finally, consider that the two conventional financial statements that reflect this control and safeguarding of assets are (1) the balance sheet, and (2) the statement of cash flows. All this clearly speaks to the control focus in accounting activities.

The next most important function of the accounting system is to monitor *profitability* as recorded on the periodic income statement. Profitability results from effective control. All managers follow profit across the shortest available reporting interval; however, responsibility for calculating profitability lies with financial accountants, who in turn rely heavily on cost accountants. See Exhibit 1.4 for a recap of the fundamental differences between financial and cost accounting.

EXHIBIT 1.4

High-Level Comparison of Financial and Management Accounting

	Financial Accounting	Management Accounting
Time Orientation	Historical reporting	Future control
Information Perspective	High-level aggregate	Operational detail
Rule Constraints	Many; externally imposed	Few; internally decided
Primary Focus	External	Internal
Discipline Dependence	Finance and economics	Multidisciplinary
Reporting Formats	Highly standardized	Highly customized
Typical Audiences	Investors, creditors	Internal managers

The Shifting Focus of Control in Accounting Systems

Traditionally, those charged with the maintenance of financial and cost accounting systems do not care what is happening in an organization as long as it is accurately recorded as a transaction and made available for reporting on the income statement and balance sheet. (Refer back to Exhibits 1.1 and 1.2 for schematic reminders of the general income statement and balance sheet components.) The focus of the mechanics of financial and cost accounting systems is distinctly different from the perspectives and priorities of internal control and audit systems, not to mention the concerns of executives and managers.

While all accounting systems have two primary concerns—control and profitability—managers and executives must be able to distinguish the specific aspects that financial and cost accounting systems each contribute to the understanding of control and profitability. Financial and management/cost accounting systems see business control and profitability from significantly different perspectives. Historically, the financial accounting focus has determined the organization's overriding control

and profitability perspective: return on investment, which inherently includes profitability. The investor and the market in general focus on short-term financial results. Stock price performance reinforces the primacy of the financial accounting perspective. In contrast, cost accounting systems historically see business control and profitability from the operational perspective. Financial accounting sees the organization from an external perspective; managerial accounting sees the organization from an internal perspective.

Managers and executives who hope to steer their organizations toward continuous improvement have learned not to wait for the financials. They control and manage organizational performance based on continuous improvement and sustainable profit goals. This proactive approach is supported by cost and performance management methodology and technology innovations over the last 20 years that have helped elevate the status of internal operational information.

More recently, theoretical research and actual practice have shown that operational and nonfinancial elements are equally important in creating success and strategic achievement. The financial accounting system provides the motivation; the managerial cost accounting system information provides the means to improve processes and achieve profitability.

Where Financial and Cost Accounting Systems Connect

A return to the Kaplan/Cooper four-stage model helps to narrow the range of the many possible permutations of cost accounting system design. Using the context of the developmental stage of the organization's current cost accounting system, executives and managers can deliberately shepherd their cost accounting systems toward more integrated levels. The remainder of this chapter and Chapter 2 use a Stage II cost accounting system as a starting point: adequate and reliable for financial

accounting requirements (e.g., audits) but limited in its cost management capabilities. Importantly, all cost accounting systems must first meet the Stage II baseline before aspiring to more advanced levels.

When business processes and accounting methods are in harmony, the aligned flow of a traditional, Stage II system would look like this:

> Plan strategic objectives ➜ then determine budget allocations ➜ that create expenditures ➜ that are assigned according to plan and budget. ➜ Later, actual expenditures are compared to budget targets to show deviations ➜ that lead to management intervention, as appropriate.

The accounting system tracks this overall process from financial and cost perspectives. Now consider three primary connection points that tie the cost and financial systems together as they each monitor the flow of value through business processes: inventories, capital spending, and period expenses (i.e., SG&A).

As each connection point is discussed below, consider how an accounting system might:

- Support understanding of the nature and behavior of cost—cost accounting.
- Promote, track, and give feedback on value creation—financial accounting.
- Assist management in wise use of resources—both.

Connection Point 1: Inventories. The first connection point, inventories valuation, flows as follows:

> Material + labor + overhead ➜ becomes inventory recorded on the balance sheet ➜ becomes product cost ➜ becomes cost of goods sold (COGS) reported on the income statement.

Material, labor, and overhead are cost information items that flow through the accounting system from the inventory assets on the balance

sheet to COGS on the income statement—from the cost accounting system to the financial accounting system. Chapter 2 details the technical budget and standard cost system mechanisms behind this flow.

Connection Point 2: Capital Budgets. The second connection point, capital spending, has a flow that looks like this:

> Capital budget process selects investments. ➜ Purchase is made and recorded as an asset, usually long-term. ➜ Depreciation expense is recognized over the *estimated useful life* of the asset (tax methods aside). ➜ Depreciation expense is recognized on the income statement.

In theory, traditional capital budgeting processes attempt to select long-term investments that will support strategic achievement over time. In practice, the process is often a cold-war battle between divisions, departments, or functions, wherein each attempts to garner as much investment money as possible for a parochial area. Once a capital investment is made—whether wisely or not—the expense of that investment is conventionally recognized over time by accounting formulas that most often do not reflect the actual use of the investment (e.g., machine, computer system).

Connection Point 3: Period Expenses. The third connection point, period expenses (i.e., SG&A), has a flow that looks like this:

> Administrative and selling costs are budgeted and then incurred ➜ then assigned to the current time period ➜ classified as SG&A ➜ and reported on the income statement.

Many companies run into financial difficulties because they fail to manage expenditures "below the line," the SG&A expenses below the gross margin line on the income statement.

Cost Accounting and Operations

Now it is time to give due attention to support of operations as the primary responsibility of a cost accounting system. Consider the following questions, this time in light of cost accounting responsibilities to operations, compared to its obligations to financial reporting requirements. How might the accounting system:

- Support understanding of the nature and behavior of cost?
- Promote, track, and give feedback on value creation?
- Assist management in wise use of resources?

The answers lie in the design of the cost management system.

Deliberate and careful design of a cost management system promotes organizational control, as well as workforce focus. The managerial cost accounting system mandates specific control processes by means of the design of its cost management system. More and more organizations look to their CFOs, controllers, and accountants for vital decision-making information and participation in strategic and long-term planning. In contrast, operations-oriented firms often see accounting systems as a necessary evil, required by government and creditor agencies, but for the most part simply a nuisance to internal managers. The difference in viewpoint largely depends on the accounting system design. CMS designs that remain in Stage I and II may quickly become irrelevant to management's decision-making responsibilities.

The importance of CMS design extends throughout the entire organization. Dr. CJ McNair summarizes the situation eloquently. "What cost management chooses to make visible—the focus of its work—will inform and constrain the organizations of the future. In choosing a future for cost management, the future of business will be shaped."[5]

Cost management system design is a conscientious and deliberate process that avoids irrelevant detail and integrates seamlessly with the

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Test Your Cost System's Value

Wondering how your cost system measures up? The attributes listed in this checklist help to answer that question. On a scale of 1 to 5, rate your existing cost system:

1 = poor 2 = fair 3 = good 4 = very good 5 = excellent

Total your ratings and fit them into these profiles:

1–10: You might as well not have any cost system, as this one could cause more harm than good.

11–20: You have a conventional cost system, good for financial reporting purposes.

21–30: Your cost system can help answer some basic strategic and operational questions.

31–40: Your cost system is an important part of your management system, and helps to solve many business problems.

41–50: You have an excellent cost system that probably provides a competitive advantage.

1. ____Our cost system makes available historical, current actual, and simulated future cost information.
2. ____We use our cost system to support ongoing improvement in many areas.
3. ____Our strategic planning process makes use of our cost information.
4. ____Our cost system is realistic and reliable.
5. ____Our executive team relies on our cost system to inform their decision making.
6. ____We use our cost system to help realign resources when our business priorities change.

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7. ____Our cost system regularly warns us when unhealthy financial thresholds are approaching.
8. ____Our cost system provides timely reporting, and its data is easy to access.
9. ____We use our cost system to hold individuals and groups accountable for reasonable performance standards.
10. ____We use our cost system to analyze discrete points of profitability such as customer, product, and region.

financial system. CMS design requires rigorous, periodic review to ascertain its continuing relevance. To reiterate:

- Cost accounting exists for a conceptually simple purpose: *Provide accurate cost information.*
- The purpose of cost management is equally clear: *Promote improvement in cost structure.*

This section will address the essential steps that executives and managers can take to achieve these elusive goals and thereby develop a CMS that is easy to use, aimed at the most important targets of analysis, and supportive of management decision making. In *Cost & Effect*, Kaplan and Cooper conclude their introductory chapter by describing the vision for such cost systems where, "cost and performance measurement systems are explicitly designed to produce the right information at the right time for essential managerial learning, decisions, and control."[6]

Historical Obstacles

Any executive with even a few years of experience knows the sharp difference between an accounting function that is pro-operations and one that is pro-finance. Likewise, any experienced accountant can tell

when other functions (e.g., operations, marketing) see the finance function as a necessary burden and when the function is appreciated for the value it adds to the organization. As in most complex situations, the ideal practice is a blend of both perspectives. Until this becomes true in their own organizations, managers must come to understand and acknowledge the historical animosity and inherent conflicts between operations and accounting.

Passions would not run so high if the relationship between operations and accounting were not essential to business health. At the root of this friction is that, financial staff and operations people see their work from culturally different perspectives and business worldviews. These unspoken viewpoints generate misunderstandings and outright conflict. The different perspectives must be discovered, exposed, and reconciled before they can be blended. All too often, nothing happens. Both sides fear the loss of control, and each is reluctant to take on new roles.

Not long ago, a financial accounting professional might spend an entire career never setting foot on the factory floor or talking with a customer face-to-face. Huddled in back rooms with whirring pencils scratching numbers on green ledgers (and erasing them, too), accountants literally had no time for any activities other than tallying, ticking, and tying the numbers. Today, although computerized accounting systems have replaced the demanding drudgery of manual ledgers, some accountants still seldom set foot in the land of operations. Cost accountants who match this profile—then or now—cannot serve their organizations to the best of their abilities.

The connections and the conflicts within the accounting/operations dynamic are easiest to conceptualize in the manufacturing sector where the tangible nature of production makes conflict stand out. In his book, *Making the Numbers Count*, Brian Maskell cites five key

shortcomings with management accounting: "(1) Lack of relevance, (2) cost distortion, (3) inflexibility, (4) incompatibility with world-class approaches, and (5) inappropriate links to financial accounts."[7] By inversely examining each of these shortcomings as attributes, the inherent connections between cost accounting and operations, whereby a CMS brings value to management, can be explored in terms of (1) relevance, (2) cost visibility, (3) flexibility, (4) support for advanced approaches, and (5) appropriate links to financial accounts. For reasons that will become obvious, the order is reversed.

Appropriate Links to Financial Accounts. Financial statements address the information needs of a range of constituents and government regulators. Since financial statements target external users and are governed by external standards and formats, at best they provide internal managers with a highly aggregated and shallow "report card" of business performance. Consequently, while the CMS should provide external managers the necessary and sufficient information to meet financial reporting requirements, the system should do so with all due dispatch in terms of the needs of internal managers for information focus and efficiency. Inventory valuation, COGS, expense classification, and absorption are among the few important connection points at issue between the financial accounting system and the CMS.

Support for Advanced Approaches. Because traditional accounting systems position cost accounting in the status of servant to the general ledger/financial statement system, the poorly designed CMS may consequently attempt to make vassals out of the other business functions. Practice the reverse. The most mature cost accountants have been given permission to support their executives to design a budgeting and cost reporting system that rapidly supports decision making, encourages efficiency throughout the organization, and requires value-added information from functional managers. In this context, all standard financial-

accounting-related routines should be automated and transparent to nonfinancial staff.

Capital spending is another connection point between accounting and operations functions for CMS value creation. Typically, North American companies use discounted cash flow (DCF) or return-on-investment (ROI) measurements to choose between capital spending alternatives. These financially focused frameworks are based on tenuous estimates and forecasts that frequently prove grossly inaccurate. Additionally, these traditional, exclusively financial analysis tools look for rapid returns on invested capital. This is not always congruent with operations management or long-term strategic plans.

Flexibility. Protocols often become highly standardized when financial accounting perspectives control the cost accounting system. In contrast, when the CMS serves operations first and financial accounting second, its system and report designs adapt to changing operational environments.

Cost Visibility. As service organizations become a larger business sector and the business landscape loses its stability in terms of organizational structure (due to mergers, acquisitions, and virtual offices), traditional cost types become increasingly irrelevant. Cost types do not facilitate cost visibility—a transparency of the nature and behavior of costs and resource spending that sustains informed decision making. This understanding is one of the most essential messages of Chapters 1 and 2. More advanced cost management systems such as activity-based costing and resource consumption accounting, clarify cost dynamics and enable wise choices grounded on business interrelationships that more closely reflect business performance.

Relevance. Closing the circle, a CMS that serves operations, supports advanced cost management approaches, adapts flexibly, and clearly displays the nature and behavior of cost, de facto, becomes relevant. In

a relevant CMS, cost work investments are generally viewed as value-added activities, and organizational management relies on them for essential decision-making information.

When a CMS exhibits these five attributes it becomes a valuable organizational asset. Inversely, for organizations missing some of these attributes, the executives and managers see one more reason for nonfinancial functions to pay less attention to CMS information.

Control and Performance Management Systems

At this point, it is worth making a final connection point. Since cost is such an integral element of the "profit imperative" and profit performance is a universal organizational requirement, it is natural and inevitable that cost and performance systems become intimately associated.

Organizations with CMS designs in Stages I and II use financial-only accounting systems. If it exists at all, nonfinancial performance measurement is typically fragmented and isolated within the functional domains of an organization. Everyone wants to "keep score," and without a formal measurement system, good managers will create their own scoreboard. For example, a competent production manager always has a control system in place based on the principles of quality, theory of constraints, or some homegrown paradigm.

TIPS & TECHNIQUES

Cost System Purposes

The cost accounting obligation is simple in concept: *Provide accurate cost information.* Implementing a cost accounting system that is accessible, that is aimed at the right targets of analysis, and that reliably supports management decision making is a more sophisticated task. The cost management responsibility is equally clear: *Promote improvement in cost structure.*

Companies developing into a Stage III CMS almost always navigate the same important barrier: exclusive reliance on financial measures for management and accountability purposes. An intense struggle ensues between the financially based management system and the more mature emerging system that values nonfinancial measures as equally important. Consequently, this can result in *two* performance management systems within the same company—the original financial-based accountability framework and the more balanced performance information paradigm. The subsequent conflicts are all too familiar; but, eventually, they must be resolved so that the entire organization embraces a single performance measurement standard of accountability.

Once again, the primary responsibility of cost accounting activities is conceptually simple: Provide accurate cost information. The cost management responsibility is equally clear: Promote improvement in cost structure.

No Separation

Cost and organizational performance are inseparable. The link between cost and performance may seem obvious today, but not long ago financial results were the organizational report card of choice. From a capital market perspective, the financials still reign supreme. That said, studies reveal the same market analysts paying more and more attention to nonfinancial measurements and intangible asset valuation, as well as to short-term quarterly financial measures like *earnings per share* and *price/earnings ratio.* Other operational frameworks, like the Quality Movement, helped shift the emphasis to some degree. However, when, in the early 1990s, performance measurement and management systems began developing independently from financial systems, performance managers found a structured way to move beyond the information constraints of general ledger financial systems. Increasingly, powerful performance management

methods and software applications support the development and reporting of nonfinancial information.

Summary and Lessons from the Field

Cost management systems can be powerful allies in organizational success, but only when deliberately designed and consistently utilized. Here are some key points in accomplishing this.

- An accounting system that meets financial reporting requirements is not necessarily adequate for management decision making.
- Cost accounting/management's first responsibility is to internal operations, and only secondarily to financial accounting.
- Traditional cost accounting systems do not always make good management systems. When a cost accounting system is constructed with a primary goal of servicing financial accounting systems, management decision-support information suffers.
- A cost management system serves its organization when it is relevant, makes costs visible, is flexible, is supportive of advanced approaches, and has appropriate links to financial accounts.
- Unlike general ledger systems, a CMS is more flexible and must be customized for each organization.
- A CMS should focus primarily on internal operations management.
- Finance and operations professionals must be vigilant in maintaining healthy relationships, where the contributions of each are recognized and appreciated.
- The behavioral implications of a CMS design have to be carefully anticipated and managed.
- Strategy, accountability, and performance concerns are central ingredients for CMS design to drive performance that is aligned with strategic intention.

Endnotes

1. The accounting instructor is one of the authors, Catherine Stenzel, who has taught undergraduate and MBA level courses in financial and management accounting since the mid-1980s.
2. *Kohler's Dictionary for Accountants*, 6th ed. (Englewood Cliffs, NJ: Prentice-Hall College Division, 1990), 528–529.
3. Robert S. Kaplan and Robin Cooper, *Cost & Effect: Using Integrated Cost Systems to Drive Profitability and Performance* (Boston: Harvard Business School Press, 1998), viii–ix.
4. Id., 24–27.
5. CJ McNair, "Defining and Shaping the Future of Cost Management," *Journal of Cost Management* 14, no. 5 (2000): 32.
6. Kaplan and Cooper, 10.
7. Brian Maskell, *Making the Numbers Count: The Accountant as Change Agent on the World-Class Team* (Portland: Productivity Press, 1996): 17.