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Is Your Cost System Obsolete?

Most organizations have some type of system in place to calculate and report costs. These systems vary in degrees of complexity and sophistication, from the simple spreadsheet model running on a standalone computer to an integrated enterprise application running on a server or mainframe system. These cost systems are usually based on a set of assumptions about the operating environment that drives the cost calculations. These assumptions, as well as the cost calculation methodology, determine the accuracy of the cost information and its reliability and relevance for management decision making.

Once organizations develop a cost model and standardize the methodology, these practices are rarely reexamined or revisited. However, if the operational data that underlie the cost calculations are not updated on a continual basis and the costing methodology is not aligned to the business processes, a cost system will rapidly fall into obsolescence. This situation occurred in the late 1970s and early 1980s, when manufacturers based their cost calculations on direct labor hours despite the increased automation of their business processes. The lack of a clear relationship between the business processes and the output generated by the cost system created serious distortions in the information reported and resulted in a loss of credibility for management accountants. In many organizations, cost systems became dysfunctional tools that had little value for management decision making. Kaplan and Johnson brought this issue to the forefront with their book *Relevance Lost*.¹

Obsolete cost systems are the result of evolutionary changes in the business processes and procedures that are not incorporated in the costing practices of the organization. These cost systems become outdated and no

longer support the strategic direction of the organization. Dysfunctional cost systems have impaired or abnormal functioning. They do not work as designed and often encourage suboptimal behaviors among managers and employees. Obsolete cost systems are usually dysfunctional, but not all dysfunctional cost systems are obsolete.

Obsolete, dysfunctional cost systems do not develop overnight and manifest symptoms that are often difficult to ignore. The deterioration process is gradual and often goes unnoticed. Usually external pressures will force management to take a hard look at the company's cost system in order to remain competitive.

Dysfunctional cost systems manifest symptoms that are often difficult to ignore. In this chapter, we will discuss the common manifestations of obsolete, dysfunctional cost systems. Some of these warning signs are documented in the accounting literature and others are based on situations that I have come across in my consulting practice. Before we discuss these symptoms, however, we must understand the functions of a cost system in an organization and the trade-offs that may be involved when one system is used to satisfy different business objectives. Such multiplicity of purposes often results in inadequate cost systems that ultimately fall into obsolescence.

FUNCTIONS OF A COST SYSTEM

Organizations generally establish a cost system to serve several purposes. Kaplan addressed this issue by identifying three major functions of a cost system:²

1. *Inventory valuation* involves the periodic allocation of production cost between cost of goods sold and inventory.
2. *Operational control* provides feedback to managers on the resources consumed.
3. *Individual product cost measurement* addresses the development of unit costs for goods manufactured.

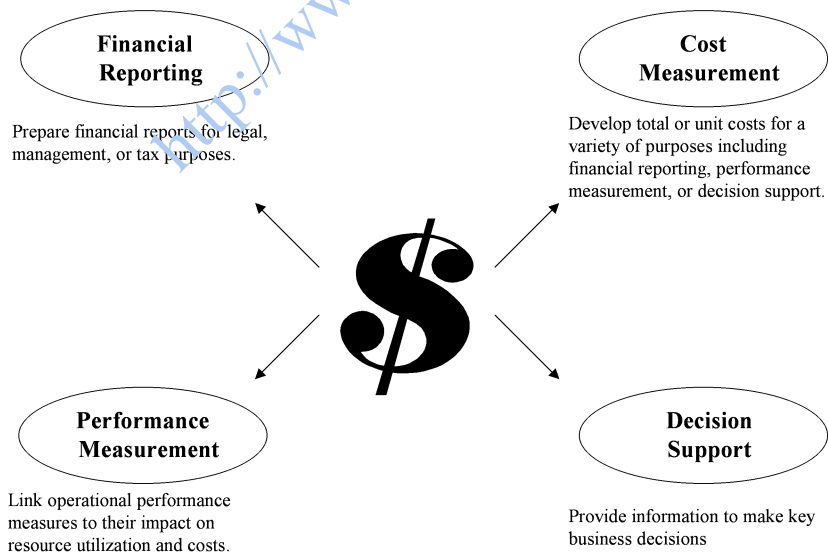
Kaplan argued that no one single system could adequately address the demands made by the diverse functions of a cost system and therefore

proposed the use of multiple cost systems to satisfy the different needs for cost information.

Kaplan was strongly criticized by accounting practitioners who argued that multiple cost systems were not practical or economically feasible in the real world. Subsequently, he published an article in which he describes the four stages of a cost system, with the final stage being an integrated cost management system that could address the multiple demands for cost information made by its users.³ The harsh reality is that for most companies, one cost system must be enough.

As initially described by Kaplan, the functions of a cost system revolved around manufacturing where the activity-based costing revolution began. However, the functions of a cost system are broader than those described by Kaplan. Figure 1.1 shows the functions of a cost system in service and manufacturing organizations and the type of information that is provided by each function. Cost systems serve four major purposes in an organization:

Figure 1.1 Major Function of a Cost System



1. *Financial reporting.* This function involves financial reporting for management, legal, and tax purposes. It has been the primary focus of many cost systems for decades. In manufacturing organizations, the emphasis is on inventory valuation and the allocation of manufacturing costs between inventory and cost of goods sold. In service organizations, it may involve transfer pricing or cost allocations so that subunits of the organization pay their fair share of the costs incurred to deliver a service.
2. *Cost measurement.* This function entails developing costs, per unit or in total, for a variety of different items—products, services, customers, projects, programs, departments, or work areas. Manufacturing organizations tend to be more advanced in costing procedures than service organizations due to the focus of cost accounting practices on manufacturing entities. With the rise of a service economy based on knowledge and information, the need to cost services has risen dramatically. It is no longer acceptable to manage service organizations in the aggregate. Cost information is important to determine the mix of services and customer profitability similar to manufacturing organizations.
3. *Performance management.* In the past, accountants attempted to control the business processes through the use of standard costs and variance analysis.⁴ Increased automation has placed operational control where it should be—in the hands of the manager who is accountable for results. A cost system should not be focused on analyzing the past, but in making the critical link among operational measures, resource utilization, and costs in order to impact the future. It should be a tool to help manage organizational performance. In this function, most cost systems are severely lacking.
4. *Decision support.* Cost systems should provide information to make key decisions such as subcontracting services, product expansion or divestiture, capital investments, and many others. Many companies use full costs for these types of decisions.⁵ However, this type of cost may be not appropriate for a particular situation and may in fact lead to the selection of a suboptimal alternative. The following situation illustrates this point. One of my clients used full

costs to subcontract the manufacturing of an unprofitable product. These costs included fixed overhead, which the company would incur regardless of whether they produced this product. When the owner informed me of his decision and showed me the cost analysis, I pointed out that he would probably expect to see a further deterioration of his financial results as a consequence of this action. The following month bore out my prediction—the company experienced a dramatic reduction in net income. At the time the decision was made, the sales price of the product covered its variable costs and contributed to the recovery of the fixed overhead costs of the facility. With the outsourcing decision, the company decreased the net incremental sales revenue of the subcontracted product but continued to incur the fixed costs of its manufacturing facility.⁶ This situation resulted in a deterioration of the cash flow position and financial performance of the organization.

The key to designing a strategic cost system is understanding what are the most important functions for your organization and how much you are willing to invest to make it work. A cost system may be perfectly adequate for financial reporting purposes, but totally inadequate for cost measurement or decision support. Data collection and maintenance also have a cost, so the more cost information you require, the more resources you will need to develop and maintain the system. You may choose to design a system that is less precise and less integrated with operational measures, but captures the essence of your organization's cost structure with a lower investment of time and resources. The design of cost systems involves a trade-off between precision and the costs of data collection and maintenance. You must ensure that the system satisfies the critical business needs without placing an undue burden on the organization.

SYMPTOMS OF A DYSFUNCTIONAL COST SYSTEM

Although your cost system may not be obsolete, it might be creating dysfunctional behavior in your organization. The deterioration of a cost system is a gradual progression: processes change, people leave, and knowledge is lost. The day-to-day activities consume the time, energy, and focus of the

Figure 1.2 Symptoms of a Dysfunctional Cost System

<i>Internal Warning Signs</i>	<i>External Warning Signs</i>
<ol style="list-style-type: none"> 1. Users complain that the financial reports are inaccurate or do not reflect the reality of the business operations. 2. Managers cannot explain the financial results. 3. Managers do not use financial reports. 4. Managers develop their own cost models. 5. Managers want to drop seemingly profitable products or services. 6. Accountants spend a lot of time on special analyses or requests. 7. Inconsistency in reported data. 8. Managers engage in suboptimal decision making. 	<ol style="list-style-type: none"> 1. Customers accept price increases without complaint. 2. Competitor prices are equal to your costs. 3. Supplier bids are lower than expected. 4. You have no competitors in a particular market niche.

organization. Nonessential activities such as updating operational standards, reviewing processes and procedures, or revising the cost methodology are put on the back burner.

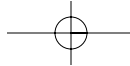
The warning signs of a dysfunctional cost system are unmistakable.⁷ I have categorized the warning signs into two major groups: internal and external manifestations. Internal manifestations are those that occur within the organization and are usually communicated by an internal user such as a department manager or project engineer. External manifestations are signals provided by our customers or suppliers that something is seriously amiss with the cost system. Figure 1.2 summarizes the internal and external warning signs of an obsolete cost system.

Internal Warning Signs

1. *Users complain that the financial reports are inaccurate or do not reflect the reality of the business operations.* When financial results are out of line with management expectations, it may be a signal that the cost system is not capturing the reality of the business processes. Accountants need to investigate whether the problem lies in operations, accounting, or both areas. For example, is it an error in the

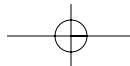
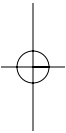
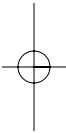
product or process specifications? Is it a problem with the cost assignment methodology? Is it a combination of operational and accounting issues? The result of this investigation may uncover the next warning sign.

2. *Managers cannot explain the financial results.* Managers should be able to give simple explanations for their profit margins and costs. If your management cannot explain the financial results, it is time to take a hard look at how you are reporting the numbers. Sometimes even the accountants cannot explain the financial results. Although accountants can usually trace the debits and credits and provide you with an accounting explanation of the numbers reported, they sometimes cannot articulate a clear explanation *from a business perspective*. This situation often signals a disassociation between the cost system and the underlying business processes it purports to represent, leading to the next warning sign.
3. *Managers do not use financial reports.* I have walked into several companies where the operational managers stack the financial reports in a corner. When queried on the usefulness of these reports, they voice several complaints that (a) the reports are too late, (b) the information is stale, (c) the reported costs do not reflect the true costs of the operation, and (d) they are too difficult to understand. Some companies are more diligent than others about forcing their managers to use financial reports. However, in companies where this discipline does not exist, financial reports just gather dust.
4. *Managers develop their own cost models.* If nonfinancial managers do not agree with the methodology to estimate costs, they will develop and use their own cost models. I have seen this phenomenon repeated time and time again over the course of many years. Sometimes, this situation develops into a “he said, she said” between accountants and the users that they allegedly support.
5. *Managers want to drop seemingly profitable products or services.* Managers know the time and resources that are required to deliver a service or manufacture a product, regardless of what the cost system is telling them. A low-volume product, for example, may be more costly than a high-volume product, even though it requires the



same amount of labor, materials, and process time. Because the product is produced only sporadically, it involves a learning curve each time the product is manufactured. The cost system may fail to capture the true costs of the product if this learning curve is not factored into the cost equation.

6. *Accountants spend a lot of time on special analyses or requests.* A cost system should provide managers with the information they need on a regular basis. Routine requests for cost information should not be a major undertaking. When simple requests consistently turn into special projects, it may signal that your cost system is inadequate to satisfy the basic information needs of the organization.
7. *Inconsistency in reported data.* Many financial transactions are recorded using operational data such as units sold, units produced, process hours, labor hours, or transactions processed. When the operational data shown in management reports does not tie to the operational data used to record transactions in the general ledger, there may be a serious problem lurking in your cost accounting system. It may signal a breakdown in your data collection procedures or a change in the business that is not being properly accounted for by your costing methodology or accounting procedures.
8. *Managers engage in suboptimal decision making.* This situation occurs when the design of the cost system encourages managers to make decisions that are contrary to the best interests of the organization. For example, operations managers may inflate time and yield standards to meet targeted performance levels for the business unit, not understanding the impact of this decision on the pricing or marketing strategies of the organization. Cost allocation and transfer pricing systems, which organizations use to assign costs to different business units for performance measurement and tax purposes, may also create inefficiencies in the work environment and lead to suboptimal decisions. I have seen companies where service units engage in endless negotiations with their internal clients, often delaying projects and resulting in a waste of precious management resources. In its worst manifestations, the business unit manager opts to use a third-party service provider because the internal supplier is “too expensive.”



External Warning Signs

1. *Customers accept price increases without complaint.* Customers know the value of your products and services. When they accept a price increase without much objection, it may be a signal that you are underpricing your products. One of my clients was simply floored when a customer accepted a price increase that was almost double what had been previously charged for the service. When this type of situation happens, it may signal that your customer understands your costs better than you do.
2. *Competitor prices are equal to your costs.* One of my clients repeatedly encountered this symptom. Its competitors not only outbid them for orders, but their prices were equal to my client's production cost.
3. *Supplier bids are lower than expected.* When outsourcing a product or service, a company can compare the bid to the cost of providing the product or service internally. If the supplier's bid is significantly lower than your costs and they use similar technologies and processes, your cost system might be providing inaccurate information.
4. *You have no competitors in a particular market niche.* Unless you operate in a monopolistic environment or have high barriers to entry, you should expect competition. If you have a highly profitable niche all to yourself, your cost system might be reporting artificially high margins.

If your cost system is manifesting one or more of these warning signals, you should evaluate whether a system redesign is called for. Obviously, these symptoms manifest themselves in degrees of severity. Some symptoms may be more severe and signal a higher business risk than others.

NEED FOR REDESIGN

Even if your cost system is not manifesting any of the symptoms previously discussed, you may still want to review your system design and setup. Cooper has identified several situations that call for a review of your cost system to which I have added a few of my own.⁸ (See Figure 1.3.)

Figure 1.3 Events That Usually Trigger a Cost System Review

- Introduction of new technology
- Changes in the use of support functions
- Changes in marketing strategy
- Changes to the business processes
- Increased competition
- Deregulation
- Changes in desired behavioral goals
- Organizational change

1. *Introduction of new technology.* Whether the technology is disruptive, such as the Internet, or an evolution from your current technology platform, the introduction of new technology requires that you revisit your business processes and understand how these are being captured by your cost system.
2. *Changes in the use of support functions.* A new product or service may cause a shift in the type or amount of resources that it demands from its support functions. A change in the business process or customer specifications may also change the support requirements of a particular product or service. Any change in the use of support functions should prompt a revision of how the costs of these resources are being assigned to the products, services, or different operating units.
3. *Changes in the marketing strategy.* If you are changing the focus of your marketing strategy, for example, to bundle or unbundle products or to emphasize a particular market niche, be sure your cost system is correctly reporting the profit margins for these products. A cost system may underestimate the cost of serving a particular market. At one of my employers, the sales and marketing division decided to market a unique product to a specific geographic region. On paper, the product looked very profitable with a high gross margin.⁹ When I talked to the controller of the manufacturing facility, he was quite distressed by this new strategy. Apparently,

there were many hidden costs not reflected in the gross margin of the product. Because the product was only scheduled for production once or twice a year, there was a significant learning curve involved with each production run. In addition, the sales and marketing division would place orders of approximately 500 units a year, but the manufacturing facility could only produce it in lots of 2,500 units per year. The inventory carrying costs as well as the risks of obsolescence were not reflected in the unit cost, generating an artificially high margin for this product.

4. *Changes to the business processes.* Any significant change to the business process should be reflected in the costs. You must ensure that the change has been incorporated into the operational parameters that drive the cost calculations, and is being properly accounted for by your costing methodology as well as the accounting and data collection procedures of your operations.
5. *Increased competition.* If your competition intensifies, costs become a matter of life and death. Your company cannot afford to make mistakes, because your competitor will be there to fill in the gap.
6. *Deregulation.* Deregulation opens the door to increased competition. Accurate knowledge of costs becomes vital in identifying market opportunities and increasing overall profit levels.
7. *Changes in desired behavioral goals.* If management wants to encourage a different type of behavior in its employees, it must ensure that its cost system will promote the desired behavior. Suppose a company wanted to encourage the use of common parts in the design of new products. If the cost system does not differentiate between the costs of a common versus a unique component, an engineer will have little incentive to use common parts because there is no visible cost differential. A word of caution—be very careful when you use a cost system to promote behavioral change. Dysfunctional consequences can ensue. In the example given here, design engineers may start trading off functionality or quality by using common parts, which will make the product less attractive to the customer. The behavioral consequence of a cost system must be looked at in its entirety—not only the costing methodology, but

also the information it feeds into other management subsystems such as transfer pricing and performance measurement.

8. *Organizational change.* Whenever there is a major change in the organizational structure of a company, the cost system should be reexamined to ensure it still reflects the management philosophy, information needs, and business processes of the organization. If the change is the result of a merger and acquisition, a reevaluation of the cost system becomes imperative to ensure that all subunits of the organization are capturing and reporting costs in a consistent manner.

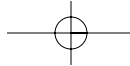
Cost systems are dynamic; they should change and evolve with the business. Any major change to a process, product, service, or business strategy should prompt a review of your cost system. The review process should be done at least once a year. It does not have to be a major undertaking. However, it should be sufficiently thorough to ensure that the cost system is accurately capturing the costs of your operations, encouraging the desired employee behavior, and meeting the needs of its users.

SUMMARY

The redesign of a cost system is a major undertaking that requires a significant amount of time and resources. Before embarking on a project of this magnitude, you should evaluate the information needs of the organization and where the current cost system is failing. Although your cost system may be showing symptoms of wear and tear, it could just need a tune-up versus a major engine overhaul. It is far easier to modify the system as the business evolves than to revamp the entire system in a one-time initiative. Herein lies the importance of reviewing the adequacy of your cost system on a regular basis. In the remaining chapters of this book, we will guide you through the steps of a cost system redesign, whether you just need a tweak or a major repair.

ENDNOTES

1. H. Thomas Johnson and Robert S. Kaplan, *Relevance Lost: The Rise and Fall of Management Accounting* (Boston: Harvard Business School Press, 1987).
2. Robert S. Kaplan, "One Cost System Isn't Enough," *Harvard Business Review* (January–February 1988).
3. Robert S. Kaplan, "The Four-Stage Model of Cost Systems Design," *Management Accounting* (February 1990): 22–27.
4. *Variance analysis* is the process that examines the differences between actual and standard or budgeted costs to determine their underlying causes and identify opportunities for cost improvement.
5. *Full costs* are the sum of all resources required to manufacture a product or deliver a service. In manufacturing organizations, it is the sum of labor, materials, and overhead. In service organizations, it is the sum of labor, ingredients, supplies, and other indirect costs involved in providing a service.
6. Accountants use the term *contribution margin* to describe the net incremental sales revenue. It is defined as the sales price less the variable cost per unit.
7. Robin Cooper was one of the first individuals to describe the symptoms of an obsolete cost accounting system in his article, "You Need a New Cost System When . . .," *Harvard Business Review* (January–February 1989). I have summarized these symptoms in this section and added a few of my own based on my experience in this area. Because cost accounting systems are usually integrated to the financial and operational control systems of the organization, these warning signals may also be indicative of a larger problem with your financial accounting and internal control system. For a more detailed discussion, see Lianabel Oliver, *The Cost Management Toolbox: A Manager's Guide to Controlling Costs and Boosting Profits* (New York: AMACOM Books, 2000), 10–12.



8. See Cooper, “You Need a New Cost System When. . . .”
9. *Gross margin* is the difference between sales and cost of sales. It represents the amount of money left over after deducting the cost of goods sold that is available to cover operating expenses. It is usually reported on a total and per unit basis.

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