PART I

Purpose of Cost Accounting

CHAPTER 1

Role of Cost Accounting

When properly implemented, the cost accounting function can have a pervasive influence in the modern corporation. Unfortunately, it is not always properly implemented because management often is not completely aware of all the uses to which the cost accounting function can be put. This chapter describes the main categories of activities in which this function can become involved, and can be used as a guide by the controller in creating a well-rounded niche for the cost accountant.

EXTERNAL REPORTING

The key task for the cost accountant is contributing information to a company's external financial reports. In many cases where the main accounting function is perceived to be financial reporting (such as in a publicly held company), the other tasks of the cost accountant may very well be subordinated to providing various types of information for these external reports.

A key piece of information provided by the cost accountant is inventory valuation, which in turn impacts the cost of goods sold. Several tasks are involved here, such as deciding on the type of cost layering technique (Chapter 13), ensuring that inventory quantities and costs are accurate, and compiling the resulting data into the formats required for external reporting.

Other related work may also be needed, such as compiling profitability levels for various product lines, or profit levels by division. The cost accountant may also become involved in the compilation or updating of a few footnotes to the financial statements, though most of these are handled by the financial accounting staff.

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INTERNAL REPORTING

The advantage of having cost accountants create reports strictly for internal consumption is that they are not restricted to generally accepted accounting principles (GAAP) when preparing these reports. GAAP requires the use of full-absorption costing in the creation of external reports, which may not be necessary or may even be counterproductive for internal reporting purposes. Accordingly, the cost accountant is free to use any costing paradigm that will result in the most informative reports for the management team—job costing, process costing, direct cost costing, activity-based costing, direct costing, throughput costing, and so on (chapters 9 through 18). For example, direct costing can be used for an internal report that focuses specifically on activities in the extreme short term, where there is no impact associated with overhead costs. Alternatively, a report can be based on throughput costs if the issue is how to push the correct product mix through a bottleneck operation in order to derive the highest possible profit. Further, full-absorption costing can be used for reports that focus on long-term decisions. The accounting method can therefore be precisely tailored to the use to which the report will be put.

The format and content of internal reports can also vary substantially from the format used for external reporting. External report formats are precisely defined by GAAP: Revenues and costs are categorized in a specific manner and only a certain number of reports are allowed. None of these rules apply to internal reporting. Some examples of different reporting structures include:

- **Corporate-level reports.** These reports may include only trend lines of information about a few critical success factors that senior managers are most interested in influencing, bottom-line profits and return on assets for each production facility or store, and perhaps forecasts at the product line level. The exact format used varies not only by company but also over time within each company, as different reporting items become less or more important to the senior management team. There is certainly no reason to include deeply detailed reports in the reporting package that goes to senior managers—they do not have the time to wade through such a morass of information.
- **Business unit-level reports.** These reports must include a much larger quantity of information, for the recipient (the plant manager) needs to know about the operation of each department, as well as a host of operational issues such as the cost of quality, inventory turnover, machine utilization, profitability, and cash flow projections. This tends to be the most voluminous of all reporting packages, as well as the one that includes the greatest mix of financial and operational information.
- **Function-level reports.** These reports can be issued to individual departments or at lower levels, for example, to the supervisors of individual machines. Such reports are custom-designed for each recipient, with some requiring more financial data (e.g., for the sales manager who wants to know about customer bad

debts or orders booked) and others including almost entirely operational information (e.g., for the warehouse manager who is interested in inventory turnover, kiting percentages, and receiving accuracy).

- **Project-specific reports.** A project report is slanted more toward just those costs being incurred for a specific purpose and so tends to be heavy on direct costs and light on most other allocations. This report usually compares incurred costs against budgeted costs expected to have been incurred at various stages of the project. If a project is already bringing in revenues, the reporting structure can be converted to a profit center format. This format tends to have few operational statistics besides percentages of completion and lists of to-do items that must be finished in order to ensure conclusion of the project.
- **Decision-specific reports.** Many times the cost accountant is called on to report on a specific issue that occurs only once, after which the report is discarded. For example, a report may be needed that describes the particular quality costs associated with the selection of three prospective production processes the management team is considering installing. Once the decision is made and the installation completed, there is no longer a need for the report. Another example is a review of waste in a production process—the report may cover such information as times elapsed when moving products between manufacturing stations, setup times, cycle times, and the amount of space occupied by idle work in process; this report is concerned less with financial issues than with process efficiency, but it is still the cost accountant's job to complete it. Clearly, these reports can cover virtually any topic and can include any type of information—financial, operational, or a mix.

An enormous range of topics can be covered by internal reports. Because they lack the amount of structure imposed on external reports, they are much more interesting to prepare, giving the cost accountant free rein to express creativity in designing the perfect format that will result in easy readability and effective management decision making.

SCOREKEEPING

The last two sections have focused on the role of cost accounting in the preparation of formal reports. However, in terms of volume, the cost accountant probably issues more scorekeeping report cards than reports. These are simple reports, usually presenting a trend line of performance for a single key measurement that is posted frequently—perhaps daily. For example, the accounting staff may be called on to create a graph of machine utilization for each machine and post it on the appropriate machine every day. This is a highly standardized repetitive format that is easy to prepare and is targeted at a specific performance criterion. One can count on creating and distributing hundreds of these reports over the course of a full career in accounting.

BUDGETING

Several of the subsidiary-level budgets that roll up into the main corporate budget involve information to which the cost accountant can contribute a great deal (Chapter 36). For example, the production budget includes estimated direct costs for each product the company expects to manufacture in the upcoming year, as well as estimated overhead allocations per unit based on expected production volumes. Cost accountants are in the best position to supply this information since they have access to all the needed information—bills of material, routings, throughput capacity constraints, and sales estimates by unit. Similarly, the direct labor budget requires input about expected labor costs, which requires information from the cost accountant regarding expected labor utilization rates and overtime estimates. If there is no human resources department to provide information about labor and benefit costs, the cost accountant is expected to supply this information too. It may also be necessary to assist in compiling estimated costs for various departments that do not have an internal staff skilled in such work and help them determine cost estimates for the upcoming budget period. Finally, the cost accountant is frequently called on to estimate facilitywide budgeted costs, including those in such categories as repairs and maintenance, insurance, and utilities. Given the wide-ranging nature of these costs, it is evident that the cost accountant can expect to allocate a great deal of time to the budgeting activity at the times of the year that it is performed.

COST REDUCTION ANALYSIS

Cost accountants should be true to their job title and create in-depth examinations of the costs of many functions throughout a company. This is a wide-ranging activity, for it can involve cost studies virtually anywhere—in engineering, production, sales, and so on. No matter what the topic may be, the process followed is quite standardized—obtain a detailed list of all costs incurred, track down the origins of each one, insert this information into a process flow for the functional area where the costs are incurred, and see which costs can be reduced or entirely eliminated by omitting the associated process steps. This task is essentially a determination of what process steps create value for a company, and which ones can be eliminated.

PRICING

The responsibility for setting product prices should be part of the sales and marketing function, which has the best knowledge of current pricing in the marketplace. This group needs to know the cost of each product sold so that it does not set prices that are below a product's cost, thereby creating loss on every unit sold. The cost accountant is in charge of compiling these costs and presenting them to the sales and marketing staff. This task is of particular importance when customers come to the company with offers to accept large volumes of product only if the sales price is substantially lowered. In these instances the cost accountant must determine the direct cost of the product in question, as well as the added cost of overhead directly associated with the production run that creates the customer's product. It may also be useful to determine the overall impact on company profits via a throughput accounting analysis (Chapter 14). A separate analysis must usually be made for each customer pricing request; since larger companies may face these issues on a regular basis, they may employ teams of cost accountants who deal with only this type of work.

Another important pricing-related task is determining the profitability of individual customers, products, product lines, and facilities. Each of these calculations must incorporate only the costs relevant to the particular analysis. For example, a review of profits by customer may include only direct costs (Chapter 11) if the analysis is meant to cover a short period of time, but should use activity-based costing (Chapter 16) if the company's long-term impact on profits is the objective of the analysis. For short-term analysis profit impact using throughput accounting (Chapter 14) should be included. Given the wide range of costing methods available, these analyses can take a great deal of time and require extensive explanations for the management team so that they fully understand the consequences of any actions taken based on this information. Typical actions are the dropping of low-profit customers, products, and facilities in favor of focusing attention on those that are the most profitable.

SYSTEMS DEVELOPMENT AND MAINTENANCE

The cost accountant has a great deal of influence over the types of data collection and summarization systems used by a company, as well as over systems that one would not normally associate with the cost accounting function, as will be described in this section.

A main concern of the cost accountant is collecting a large enough quantity of data to create a sufficiently large pool of information that can be used for various types of costing analysis. However, there is a cost associated with the collection of data, so higher costs are incurred in collecting more data. Consequently, the cost accountant must spend some time exploring new types of data collection automation (Chapter 4) to keep these costs low, while still providing sufficient quantities of data. For example, replacing manual time cards for direct labor personnel with automated bar code scanning equipment eliminates a significant amount of the labor costs associated with collecting and processing direct labor-related data.

When an activity-based costing system is used, the cost accountant is probably its primary maintainer. He or she carefully investigates the nature of all costs feeding into the system, determines which costs will be collected into which cost pools, selects cost drivers for each pool, and verifies that there is indeed a causal relationship between the drivers and the pools (Chapter 16). These relationships change over time, so the cost accountant is required to investigate and make changes as necessary.

It is also common to become involved in the assignment of costs to various entities, such as departments or product lines, and to constantly re-review this information and reassign the costs as needed. This is a particularly common activity in organizations where managerial compensation is based on localized profits, since managers are constantly attempting to shift cost allocations away from their areas of responsibility, thereby producing instant improvements in the profits attributed to them.

Rather than allocating costs, as just noted, the cost accountant may be asked to take the reverse approach, that is, to determine why costs have been incurred and allocated in a certain manner by tracing them back through the accounting system, perhaps all the way back to their originating source documents. This information can then be used for a simple report to management regarding the causes of costs, or it can be used as the foundation for a project to alter the system to allocate costs in a different manner.

COST-BENEFIT ANALYSIS

A cost-benefit analysis is used when management wants to know if it makes sense to acquire or dispose of a piece of equipment, as well as to determine all of its associated costs. This is not a simple analysis, requiring the accumulation of all related cash flows and their reduction to a net present value with the use of a discount factor (Chapter 24). It may be necessary not only to delve into the inner workings of such prospective projects but even to be attached to them until they are completed, in order to ensure that all cost additions are within the original approved funding levels. This activity represents an entire subcategory of cost accounting called project accounting.

INTERNAL CONSULTING

It is also common to be assigned to any number of cost-related projects as an internal consultant. For example, a department manager may want to know what will happen to costs if certain functions are outsourced to a supplier. Alternatively, the warehouse staff may want assistance in determining the amount by which working capital requirements will be reduced if a new project to shrink inventory levels is implemented. In addition, it may be necessary to conduct a benchmarking study (Chapter 33) to find better ways to complete a task, either by searching within other divisions of the company or (more commonly) looking outside the company for better "best practices" (Chapter 35). These activities may stop with a presentation of the suggested improvements to management but can continue through monitoring of the implementation of these best practices—a common activity for the cost accountant. Thus, the cost accountant may be asked to review a wide variety of function-specific activities on a project basis.

GOVERNMENT BILLINGS

An extremely specialized area is government billings. Though many government purchases are now made through standardized pricing schedules, such as those issued by the General Services Administration or through a government-wide agency contract (GWAC), a significant volume of purchases still involve the use of cost-plus contracts. Cost-plus purchases are made in situations where the government wants to acquire something so unique (such as innovative new defense equipment) that it has never before been produced. Companies do not want to quote a fixed price for such items since they have no idea if they can actually manufacture them and still turn a profit. Accordingly, the government is compelled to offer a cost-plus contract under which a company is reimbursed for all costs related to the work being done for the government, plus a percentage allowance for profit.

This is a key role for the cost accountant, whose job it is to learn the byzantine costing rules of the government and then create a cost accumulation system that records the costs for which the government requires records. In addition, one must determine the allowable allocation of overhead costs that can be applied to project costs and billed to the government. The rules for these procedures are mind-numbing.

The allowable costs that can be billed to the government are drawn from different functional areas of a company, which requires the cost accountant to have considerable knowledge of the research, product design, production, and administrative functions and how each of these areas tracks its costs.

Government contracting officers are assigned to review the billings issued by a company and may protest and refuse to pay for certain line items if they feel that the billing is not supported by government cost reimbursement rules. In these instances it is the cost accountant's job to research the rules and present a case to the contracting officer that argues in favor of reimbursement. These cases can go to court for final resolution, and the cost accountant is then required to assist in preparing legal justification for the company's case and may even be called on to testify.

Government billings require cost accounting skills of the highest caliber. A top-notch costing professional in this area has a direct impact on company profits and is considered an important part of the management team in companies that engage in this sort of work.

FUTURE ROLE OF COST ACCOUNTING

The future role of cost accounting will certainly include a greater emphasis on corporate strategy. The cost accountant can contribute several types of costing information to the planning process (Chapter 32) that are of assistance in making strategy alterations that will result in enhanced levels of profitability or at least in the avoidance of low-profit strategy alternatives. A large part of this information comes from a database of costs that encompass a much wider range of potential production volumes than those currently used by the company. This information is derived from interaction with the purchasing department, vendors, and industrial engineers, all of whom can contribute information about changes in costs at various volume levels. With this information, strategy planners can determine what will happen to internal costs if the company pursues various strategies that either increase or decrease sales (and therefore production) volumes for various product lines.

Another contribution to corporate strategy is the use of throughput accounting (Chapter 14). This method allows the corporate planning staff to determine which equipment is currently causing the primary production bottleneck. It can use this information to shift the bottleneck to a different point in the production process if it will result in changes in the mix or in the volume of products manufactured that will cause a significant alteration in profits. One can also use this information to create a plan for producing a specific set of products that will make the most effective use of the existing bottleneck right through the planning period; this allows a company to redirect all its sales and marketing, production, and materials management activities around the sale and manufacture of only these products, thereby maximizing profit levels.

SUMMARY

Despite the large number of categories of work discussed in this chapter, it does not begin to reflect the full range of tasks that the cost accountant may be involved in during her career. The cost accountant can reliably expect to be assigned tasks in every nook and cranny of a corporation, which is what makes the job such an interesting one, far more so than that of a financial accountant, whose job is much more closely defined by external accounting reporting rules.

The only common denominator among the various cost accounting tasks is that they focus on providing information for management decision making. Typically, the task is to conduct a short analysis of a specialized topic, draw conclusions, and make recommendations that will be acted on by management to make improvements. The responsibility here is great, for the cost accountant's recommendations ultimately have a direct impact on company operations and overall profitability.