

Evaluating Descriptive Costing Method Maturity

Managerial costing systems can be used in two ways: to provide historical and descriptive performance insights (descriptive costing), and to provide forward-looking and predictive performance insights (predictive costing). This executive summary provides a quick overview of the various maturity stages of managerial costing practices in the *descriptive* realm.¹

Defining Costing Method Maturity

Organizations typically report expenses in compliance with legal and regulatory requirements, and as a result provide a basic level of cost information to external users. Many organizations, in an effort to establish more useful information for internal use, go further to calculate costs of business objectives (e.g., product costs) and associated expenses. Some organizations will invest in successively more sophisticated levels of costing tools and techniques to expand their internally focused decision support information. Each investment to extend along a range managerial costing complexity potentially results in greater accuracy, visibility, and insights for analysis and decision making. At each higher level of costing complexity (or maturity), causal resource and process relationships are modeled to establish greater insight and more effective internal decision support. Along this maturity path, a separate cost modeling framework is established that diverges and expands significantly from traditional financial reporting rules and standards surrounding regulated definitions of product costs, inventory, and expense which are not consistent with the principle of causality as defined in the *Conceptual Framework for Managerial Costing*.

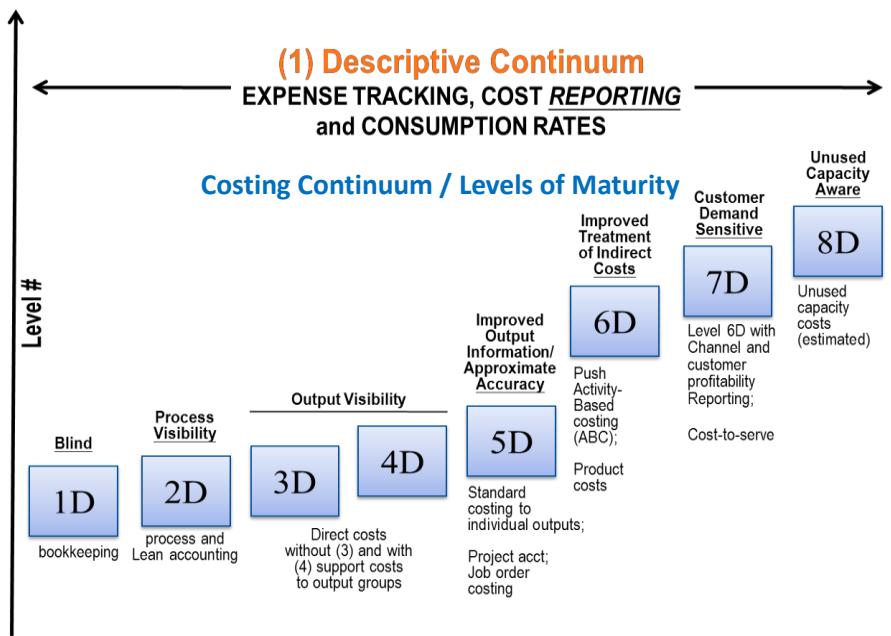
The path to descriptive costing maturity covers eight maturity levels to assess spending, and obligations to spend, incurred in past periods. Levels 1 through 5 can be viewed as adhering to external financial reporting standards. Levels 6 through 8 diverge significantly from the external financial reporting domain. This path highlights that cost management and supporting systems for internal decision support must reflect the underlying reality and causal relationships of how the organization performs work, subject to practical constraints, and within the context of the required business decisions for a wide range of managers at all levels. Progression to higher managerial costing maturity levels should be based on internal decision-making requirements, and should satisfy the operational and strategic demands of managing the organization to achieve the goals of its stakeholders, including shareholders, customers, employees, suppliers, and funding bodies.

The Descriptive Costing Maturity Framework

The core principle that defines the level of an organization's costing maturity for internal decision making is causality, as defined in the IMA's *Conceptual Framework for Managerial Costing*². The ability of a cost model to incorporate a high level of causality is primarily based on the model's reflection of resources (e.g., existing workforce, equipment, IT, etc.) and operational relationships (e.g., how resources are demanded, how costs are spent, how capacity is consumed, etc.). Cost information useful for internal decision support must reflect operational relationships and the consumption of resources across processes. The Descriptive Costing Maturity Framework is illustrated below.

¹ The Center for Managerial Costing Quality thanks Gary Cokins for working with the CMCQ to develop this managerial costing maturity framework.

² See <https://www.imanet.org/-/media/94570fec29de4e69b7f800caf53048f6.ashx>



Level 1—Blind

Level 1 is exclusively financial accounting at its most fundamental level, bookkeeping. The focus may even be limited to cash management and tax reporting rather than involving generally accepted accounting principles (GAAP) for small, privately held companies. Resource consumption is generally only represented by monetary expenses (i.e., cash) from the two basic transactional systems, payroll and purchasing, that are accumulated in a general ledger accounting system. Some accrual accounting bookkeeping entries may produce adjustments, such as to bad debt reserves, to report period-end financial statements. Depreciation is typically done on a tax basis. Cost centers representing resources are few and aggregated by functions such as operations, sales, marketing, or administration. Costs are not calculated and tracked to specific outputs.

Level 2—Process Visibility

Level 2 tracks direct operational or production resource costs in sequenced processes rather than by functional departments. Managerial costing providing process visibility and process improvement, sometimes used in conjunction with a lean management technique called value stream mapping. (A value stream includes all the resources and activities involved in providing products and services to customers.)

Typically, steps in the value stream are tagged as either value-added or non-value-added, or perhaps identified at a level of importance (e.g., much, some, little). This managerial costing approach focuses attention on opportunities for process improvement such as waste and throughput cycle time reduction. If a value stream's unit cost of an output is calculated, generally all outputs of a process are presumed to be homogenous. This approach results in a single average cost across large groups of outputs, even though most organizations provide a variety of services or products.

Level 3—Partial Output Cost Visibility (no allocations of support costs)

Managerial costing practices at Levels 3 and 4 are designed to assign costs to groups of outputs at highly aggregated levels, such as for a product family or service line. Level 3 focuses on assigning costs of resources directly involved in the production of final products and services (e.g., labor, utilities, equipment) using an approach often described as a “direct costing” method. For most organizations, this approach does not fully comply with minimal GAAP reporting requirements because indirect production and support resource costs

are not allocated to (absorbed by) individual products or services.

Level 4—Output Cost Visibility (with allocations of support costs)

Level 4 is the first level that “allocates” indirect and shared resource expenses to groups of final cost objects. The total cost of an indirect production or service support department is assigned and added to the direct cost centers (see Level 3) using a single cost allocation factor (i.e., cost allocation rate). These allocated support costs are added to the direct costs previously assigned to the output. Cost behavior definitions in Level 3 and 4 are simplistic and limited to groups of final cost objects.

Modest improvements to Level 4 accuracy includes processes such as the “step-down” cost allocation method, where one or more support departments receive an allocated indirect expense from a higher (more indirect) level support department. But only a single cost allocation factor is used from each support department. Hence, the causality principle is typically violated.

Level 5—Improved Focus on Individual Output Cost Measurement

Level 5 calculates costs in relatively greater detail by tracing direct and allocating indirect costs to *individual* outputs and products or services. This is in contrast to the aggregated and grouped output costs calculated in Levels 3 and 4 (e.g., product families and service lines). This is the first level that is considered to comply with GAAP and external financial reporting standards, and is traditionally known as standard costing. Expenses below the gross profit line (primarily selling, general, and administrative expenses) are typically not assigned to outputs (this is particularly true for manufacturers).

The use of standard cost metrics to assign direct cost to individual outputs results in reasonably accurate output costs, but only for the direct costs. As in Level 4, the pooling and allocation of indirect and shared expenses using a single cost allocation factor is inaccurate, and on that point continues to violating the causality principle.

Level 6—Improved Treatment of Indirect Costs to Increase Accuracy

Level 6 substantially increases the accuracy of output, product, and standard service-line costs by tracing indirect expenses to outputs in a way that is more consistent with the causality principle. This cost tracing contrasts with allocating broad pools of indirect expenses based on a single causal-insensitive cost allocation factor. The primary approach is by disaggregating the cost centers used in the prior Levels 3 to 5 into “activity costs pools.” Level 6 is where Activity-Based Costing (ABC) principles are first applied.

In Level 6 each indirect work activity is associated (i.e., connected with a cost assignment path) with only those specific outputs that consume each indirect work activity’s cost (to the extent that this can be estimated), and an activity cost is not connected to any outputs that do not consume that activity. The additional accuracy created in Level 6 is derived from analyzing and modeling work activities and their cost assignment consumption relationships. The activity driver quantities that trace the activity costs to the outputs can be either estimated by process knowledgeable employees, extracted from data collected in non-financial operational information systems, or designed and captured real-time in dedicated activity transaction systems.

Level 6 models are further improved with multi-stage activity-based costing by clarifying direct and indirect activities. A direct activity is one that contributes directly (makes a product or delivers a service) to a final managerial objective or cost object, typically a product or service. An indirect activity supports a direct activity; however, there may be several levels of indirect activities. An indirect activity may be consumed by a direct activity, or an indirect activity may be consumed by another indirect activity as part of a process leading to a direct activity and final cost object.

Level 7—Expanding Cost Objectives to Include Customer Views

Level 7 expands resource-to-activities measured consumption relationships beyond product or service outputs to determine costs of channels, types of orders, and customers. Level 7 also expands below the Gross Profit line to encompass costs across the entire organization. Expense such as Sales, Marketing, R&D, administration, general management are causally linked to final cost objects and managerial objectives.

Level 7 effectively creates another and new layer of data, and a layer of “cost object drivers” necessary to assign product or service costs to customers. In contrast to traditional product and standard service-line costs, these customer-oriented costs are typically referred to as “costs-to-serve.” Level 7 also assigns non-product and non-customer caused costs to business-sustaining cost pools (such as senior management, idle capacity, or regulatory agencies). The use of these business-sustaining cost pools prevents over-costing products and customers with costs that have no causal relationship.

Level 8—Unused Capacity Awareness

Organizations at Level 8 determine, usually by estimating, the amount of idle or unused resource capacity, and assign these costs to a business-sustaining cost pool called unused or idle capacity. Resources are either used productively (doing the work they were acquired or engaged to do), used non-productively (maintenance, training, process wait time, etc.), or not used (due to lack of demand, overcapacity, contractual limits, or management decisions, etc.). Resources that are used are traced and assigned in all the levels. Including a resource’s idle capacity expense in the cost assignments would overstate all process/activity costs as well as the output costs. It will also overstate cost consumption rates used for projections in the predictive levels. Additionally, the failure to identify idle capacity costs hides opportunities to use that capacity for greater production leading to increased revenues, and can result in investment in unnecessary capacity since available capacity may already exist.