



COST MANAGEMENT MUST MOVE FROM METHODOLOGIES TO

Acceptance of managerial costing solutions will only occur based on principle-based practice and the recognition that solid decision science is the foundation of internal decision support.

PRINCIPLES AND SCIENCE

LARRY R. WHITE

Accountants and other managers often discover they need better cost information about their organization, operations, products/services, and customers. Questions arise: What's the "true" cost? I need a "relevant" cost — how can that cost make any sense? I improved my process, why is the product cost the same? The answers provided are not very convincing or are long in coming.

So, you launch a search for a solution. Sadly, your accounting knowledge comes up short: You didn't learn much beyond standard costing in college or for certification exams. So, you move on to internet searches for books, consultants, and software vendors. What you find is methodologies: activity-based costing (ABC), time-driven ABC, life cycle costing, lean accounting, throughput accounting, theory of constraints, Grenzplankostenrechnung (GPK) — a German management accounting or controlling

application, resource consumption accounting, etc. How do you sort all this out? You listen to presentations on YouTube, set up meetings with vendors, schedule software demonstrations, call your network, look for best practice companies, etc. The result? You are more confused than when you started. You cannot find any consistency of approach, no unifying guidance, theory, or principle.

Isn't there a core or foundational theory or set of principles for costing to address my internal decision support and strategic needs? Why am I, an otherwise competent professional, playing "eeny, meeny, miny, moe" with something so important to my business? It seems like I should have learned more about costing approaches in college or with experience. Did I miss something?

If the above story has a familiar ring to you, sadly you are not alone. "Cost phobia" is an all too common financial and accounting disorder. Until very recently, there was

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no cohesive theory or guidance for creating cost information for internal decision support. And although it now exists, it has not been embraced by the broader accounting profession, which is far too busy trying to beef up external financial and business reporting and naturally, the associated audit revenue.

Enter: The conceptual framework for managerial costing

About 2010, the Institute of Management Accountants (IMA) established a task force to construct a set of principles and concepts for creating cost information for internal decision support. The idea was to set aside financial standards, GAAP, and external financial reporting requirements; and focus on the foundational principles that create value for the long term and connect operations (administrative, support, and production/service providers) to monetary outcomes for internal decision support. This answers the question: What principles should underlie costing methods and approaches that endeavor to provide information purely for internal management decision-making?

Before we explore that answer, let's get a few peripheral issues explained in the following sections.

What is a conceptual framework? Why that name? All major financial standards — United States, international, government, commercial — have conceptual frameworks

that present their principles and concepts and state the ideals for external financial reporting. Similar language and structure were employed in defining costing principles and concepts for internal decision support. The

IMA Conceptual Framework for Managerial Costing (CFMC) spells out the basics needed to achieve good internal decision support models and information.¹ As such, the CFMC is an important body of knowledge to assist accountants in taking their organizations to higher levels of insight and performance. *Cost Management* was instrumental in this effort

when it published *The Management Accounting Philosophy* series of articles by Anton van der Merwe. This series proposed a set of principles and concepts for managerial costing that led to the conceptual framework.²

Why the term “managerial costing?” Management accounting is used very broadly as a profession or to describe all the tasks completed by an accountant working in business. Cost accounting has been defined by the International Federation of Accountants as costing done purely for external financial reporting (i.e., costing for GAAP-based inventory valuation). A new term was needed, and after extensive searching, “managerial costing” was substantially undefined and little used. So, the IMA defined managerial costing as costing done purely for internal decision support.³

What is the CFMC meant to achieve? “The objective of managerial costing is to: (1) provide a monetary reflection of the utilization of business resources, and (2) relate cause-and-effect insights into past, present, or future enterprise economic activities. Managerial costing aids managers in their analysis and decision-making and supports optimizing the achievement of an enterprise’s strategic objectives.”⁴

The CFMC is meant to serve multiple purposes:

It provides guidance for designing cost models based on the principle of causality that accurately reflect operations and processes for the decisions that organizations need to make most frequently.

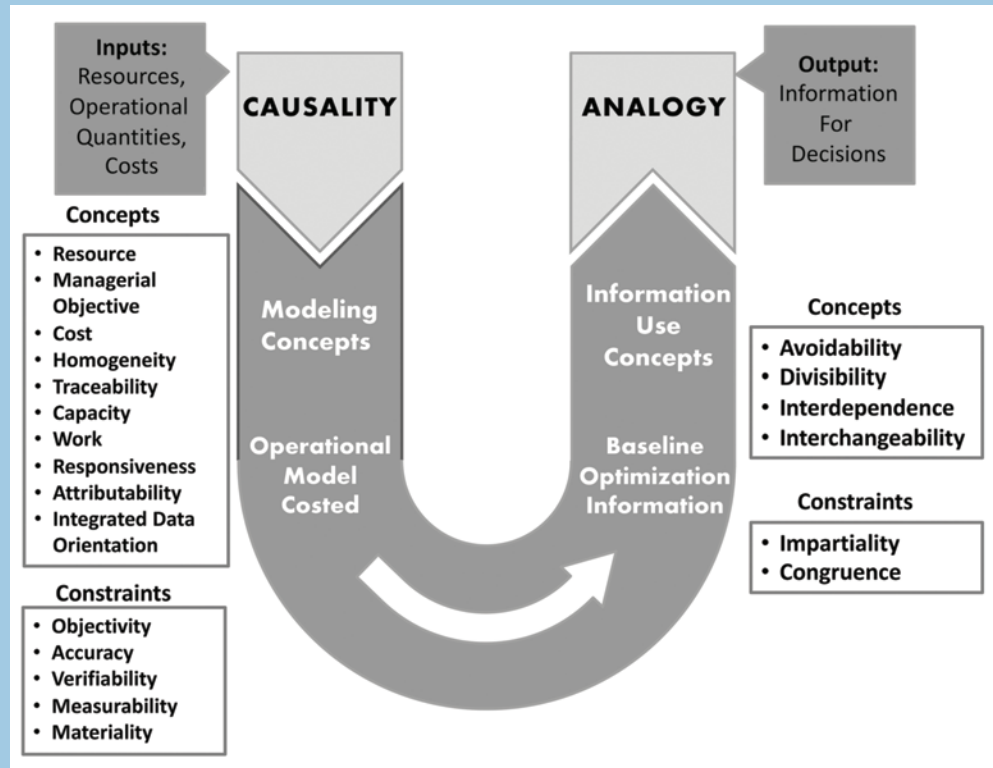
It establishes a reliable reference for generating cost information for internal management use that clarifies why this cost information is different from external financial reporting, tax, and regulatory cost information.

It details guidelines for comparing the strengths and weaknesses of existing and alternate approaches [i.e., methodologies] for generating decision-relevant cost information.⁵

Since the publication of the CFMC, several other IMA Statements on Management Accounting (SMA) have been written supporting its use. An important SMA for evaluating both a company’s cost requirements and how well a solution matches their needs is Costing System Attributes that Support Good Decision Making.⁶ It defines 5 assessment levels for the 10 concepts for cost modeling and can be used to evaluate company

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EXHIBIT 1 The Conceptual Framework for Managerial Costing



requirements, the current costing system, and solutions or methods under consideration.

What are the principles for costing for internal decision support?

The principles codified in the CFMC govern the application of fundamental truth of costing for internal decision support. “Truth” is confusing for accountants since accounting professional ethics spend a great deal of time and effort supporting financial reporting standards as a form of “truth.” And it is a form of truth — a consensus-based “truth” that allows for the comparison of entity-level financial results. However, it is not the only form of truth.

In Wikipedia, truth is explained as having five major theories:

- correspondence theory: truth corresponds to facts;
- coherence theory: proper fit of elements within a whole system;

- constructivist theory: constructed by social processes;
- consensus theory: whatever is agreed upon; and
- pragmatic theory: putting concepts into practice.⁷

Only the correspondence theory is relevant to science and the scientific method, and it is the necessary truth for objective decision science. All the other theories contain social/human compromises. What type of truth do you want to use for decision-making? Unless you are only looking at a quarterly bonus tied to financial statement results, you want to use the correspondence theory to make long-term, value-creating decisions. And that truth is what the IMA’s CFMC uses for modeling operations and cost for internal decision support. The correspondence theory of truth is what operational systems use to help you optimize operations. (No operational systems are beholden to a group of people like the five accountants in Norwalk, CT, i.e., the U.S. Financial Accounting Stan-

dards Board, to define standards for its “truth.”)

The principles the IMA CFMC identifies for internal decision support are:

- Causality: the principle for operational and cost modeling.
- Definition: the relation between a managerial objective’s quantitative output and the input quantities consumed if the output is to be achieved.⁸
- Analogy (or the logical use of information): the principle for decision-making.
- Definition: the use of causal insights to infer past or future causes or effects.⁹

The core diagram from the IMA CFMC (see Exhibit 1) shows the operation of the principles. It also introduces the 10 concepts that support the 2 principles as well as the constraints, which limit the application of each principle.

Diagram overview

An organization is composed of resources that produce work and generate costs. The principle of causality (cause and effect) is used to create a model of the organization’s resources and processes — guided by 10 concepts related to causality on the left of the “U.” The result of applying the concepts is the creation of a model composed of operational quantities and how these are consumed in an organization’s processes, products, and services. The operational model is then costed (i.e., integrating the values of the quantities). The cost model forms the baseline information for management to improve and optimize operations and the associated resources usage. The use of the information is guided by four concepts shown on the right of the “U.” These concepts do not address behavioral or management issues, but rather are logical considerations when using managerial costing information. The key principle for information use is analogy, which emphasizes that information should be presented and used for decision support in an analogous manner. Both causality and analogy are subject to constraints that cannot be totally overcome. They are always present and must be considered and managed when one creates a model and uses its information.

The CFMC is not a costing approach or method (such as standard costing, process

costing, ABC, resource consumption accounting, etc.). Instead, it defines the principles, concepts, and constraints that must be considered when evaluating an organization’s costing needs, selecting a costing approach, and designing a costing system. Nor is the CFMC a best practice. As a framework, the CFMC serves as the foundation for all managerial costing practice and application.

A decision science orientation is critical to credibility

Decision makers use models of the system they seek to optimize. They simulate changes in resources and processes to confirm their inferences. Alfred R. Oxenfeldt, a long-time professor at Columbia University, captures the importance of these optimization models in his book *Cost-Benefit Analysis for Executive Decision-Making*. He states, “The validity of our decisions depends upon our perception and understanding of reality. Good decisions require good models, and the caliber of our decisions reflects the quality and validity of our models.”¹⁰

For a model to support optimization decision-making, it must incorporate causality in a robust manner. Causality is fundamentally about resources and processes, not money. Causality expresses the relationships between an output quantity and the quantities of inputs required to produce that output; these are the solid facts of a business decision. Money is a parity measure. Decisions always require selecting from two or more alternatives. Integrating money as a reflection of causal operational relationships enhances the usefulness of the information. It informs decision makers as to the financial benefits of desirable outcomes and provides insight into the financial damage that would result from undesirable outcomes. However, changes in monetary outcomes require changes to resources and processes.

Scientific decision-making requires reasonably robust adherence to the concepts of causality and analogy. Some sloppy costing practices destroy managerial costing model credibility. Examples include:

- modeling fixed resource use and costs as variable, thereby creating a “fixed cost death spiral” as less profitable products are dropped;



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- failing to incorporate robust capacity information and clearly identifying idle/excess capacity; and
- allocating non-causal business support resources to final products or services.

ABC, resource consumption accounting, and many other costing solutions have been around for decades, but their use is not widespread. Those companies and individuals that take the time and effort to learn managerial costing find their models extremely valuable; but few take the time or effort. Most muddle through relying on hotshot financial planning and analysis departments to do “special” analyses or use convoluted standard costing models. They hesitate to stray from their external reporting-oriented financial accounting systems, which they look at as “the one or sole version of the truth.”

There are other approaches used around the world. Germany has a long history and a specific discipline that looks at cost and other information from a purely internal decision support point of view. This discipline is known as “controlling” and historically has been considered more of an operational discipline than a finance and accounting discipline.¹¹

China’s Ministry of Finance adopted managerial costing guidance (based on the IMA’s CFMC) for governmental reporting, which includes China’s 300 state-owned corporations. After the Ministry of Finance spent billions implementing financial reporting and audit standards, it was frustrated that it still lacked the type of information it needed to assess, manage, and control the performance or efficiency of operations. It found the external financial reporting perspective severely lacking and needed a more in-depth internal decision support perspective.¹²

The complexity, speed of change, and increasing need to take more and larger risks in business will require better cost models for internal decision support. The COVID-19 pandemic showed the weakness of historical projections and limited cost information. However, acceptance of managerial costing solutions will not happen unless the confidence in and credibility of managerial cost models vastly increases. This can only occur based on principle-

based practice and the recognition that solid decision science is the foundation of internal decision support. Improvements in data and computer systems, artificial intelligence, and analytics are creating an opportunity. First, many rule-based financial activities will be automated; and second, accountants will need to shift focus to analytics and business partnering, which are all about internal decision support information. The IMA’s CFMC codifies the foundation for growing a highly credible and successful new era of costing for internal decision support and optimization.

What’s the issue with principles versus methods?

The CFMC establishes a solid, foundational body of knowledge for creating internal decision support cost models and solutions. It defines the “internal” decision support and managerial costing perspective as separate and distinct from financial accounting and reporting.¹³ It is a perspective requiring different models and different principles. It shines the light on a world of information, an endeavor that has been under-resourced, erratically practiced, poorly defined, and poorly understood. It focuses attention on the core elements of decision science and optimization to improve important economic decisions throughout the organization. This is far more than providing a method to solve a problem.

When implementing methodologies (and the associated consultants and software products), we need to start specifically defining their capabilities in the language of the CFMC’s principles, concepts, and constraints. The framework provides a common language for practitioners (customers) to evaluate solutions. It also paves the road through the jungle (or jumble) of management accounting cost methodologies by advocating, educating, and using a common language based on solid principles of decision science. The CFMC is a major step toward making the search for and evaluation of costing solutions a much more professional endeavor, and much less of an advertising and salesmanship contest. Practitioners and solution vendors should study the CFMC and its supporting SMAs and use its common language to define user

needs and portray solutions. And looking more broadly, wouldn't it be great if academia would teach a solid theory for internal decision support costing to a new generation of accountants? ■

NOTES

¹ "Conceptual framework for managerial costing," Institute of Management Accountants. Available at: <https://www.imanet.org/insights-and-trends/strategic-cost-management/conceptual-framework-for-managerial-costing?ssopc=1>.

² van der Merwe, A., Management accounting philosophy I: Gaping holes in our foundation, *Journal of Cost Management* 21, no. 3 (2007); van der Merwe, A., Management accounting philosophy II: Cornerstones for restoration, *Journal of Cost Management* 21, no. 5 (2007); van der Merwe, A., Management accounting philosophy III: The management accounting evaluation framework, *Journal of Cost Management* 21, no. 6 (2007).

³ White, L.R. and Clinton, B.D., "The conceptual framework for managerial costing," Institute of Management Accountants (Sept 2014) (report). Available at: <https://www.imanet.org/-/media/df27d1327c4b4f9dbc0b5a43537bcc7f.ashx>.

⁴ *Ibid.* p. 7.

⁵ *Op. cit.* note 3, p. 6.

⁶ "Costing system attributes that support good decision making," Institute of Management Accountants (Oct 2019) (report). Available at: <https://www.imanet.org/insights-and-trends/strategic-cost-management/costing-system-attributes-that-support-good-decision-making?ssopc=1>.

⁷ "Major theories," Wikipedia. Available at: https://en.wikipedia.org/wiki/Truth#Major_theories.

⁸ *Op. cit.* note 3, p. 9.

⁹ *Ibid.*

¹⁰ Oxenfeldt, A.R., *Cost-Benefit Analysis for Executive Decision-Making: The Danger of Plain Common Sense*. (New York: AMACOM, 1979).

¹¹ "What is controlling?" German Controlling Association. Available at: <https://www.icv-controlling.com/en/about-controlling/what-is-controlling.html>.

¹² It was the Shanghai National Accounting Institute and the Beijing National Accounting Institute. My speeches in China and meetings with the Ministry of Finance were in August 2014. I also reviewed and commented on the Ministry of Finance's managerial costing standards for state owned enterprises in 2019 which have since been published and reflect many of the concepts in the Conceptual Framework of Managerial Costing I wrote with Doug Clinton for IMA.

¹³ *Op. cit.* note 3.