PROFITABILITY ANALYTICS CENTER OF EXCELLENCE

eBook

Managerial costing: Why it's important and how to do it

Part of the Profitability Analytics Framework

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MANAGERIAL COSTING

A profitable manufacturer of highly engineered products is forced to abandon its production operations due to losses it incurred. A nonprofit, long-term healthcare provider accumulates a population of residents that wipes out the endowment that made attainment of its mission possible. A restaurant equipment distributor grants substantial discounts to high-volume customers, incurs excessive channel maintenance and fulfillment costs, and sees its profits plummet. An auto supplier, seeking to reduce the cost of a major component, outsources its production, only to see a negative impact on profits.

Examples such as these are endless, yet they all have a common cause: the lack of an adequate managerial costing system, resulting in reliance on oversimplified costing information to make critical business decisions. In this eBook we explain the importance of managerial costing, identify the elements of a managerial costing model, and describe how to build effective models for strategic and operational management.

WHAT IS MANAGERIAL COSTING?

Managerial costing is costing done to provide accurate and relevant cost information for internal decision support. It is meant to reflect causal operational resource and process relationships for any managerial objective whose cost needs to be measured: from the cost of preparing an invoice or maintaining a machine to the cost of supporting a product, customer, or distribution channel. It is not limited to product or service costing.

Unlike financial accounting, managerial costing has no mandated rules or standards. But it does have principles and concepts, which differ considerably from the rules and standards used for external financial reporting. Financial accounting's goal is to produce "general purpose financial reports", with primary customers being creditors and investors in public capital markets – not management. Management requires much more information to adequately support its internal decision-making.

Managerial costing models, while not constrained by rules and laws, must be based on an operational model of resources, processes, and customer behavior grounded on the principle of causality. The value of managerial costing models is determined by how effectively and accurately they reflect the economic characteristics of an organization's reality and its operating model. Only in this way will a managerial costing model and its information be understood and widely used at all levels of the organization.

MANAGERIAL COSTING AND THE PROFITABILITY ANALYTICS FRAMEWORK

The objective of the Profitability Analytics (PA) Framework is to free profitability analytics – information on revenue, costs, and investments - from the constraints and distortions of regulated financial reporting. It does this by reflecting economic reality and cause and effect relationships accurately for internal decision-making. Long term organizational profitability and viability is the focus of the Profitability Analytics (PA) Framework.

The PA Framework focuses on the creation and execution of strategy within an organization. Managerial cost models and information are essential to validate strategic plans for profitability. In the strategic plan validation phase, new sales volumes, new resources, and new processes are modeled to ensure they yield the expected operational and financial results required to meet the objectives of the organization.

During the strategy execution phase, effective managerial costing models and information are required to evaluate tactical decisions and evaluate adaptations to the strategic plan as expectations are under- or over-realized and changes are made to pursue organizational goals.

NEED FOR MANAGERIAL COSTING

Traditional external financial accounting and regulated financial reporting are models designed to meet the needs of specific external audiences. There is nothing wrong with financial accounting models such as generally accepted accounting principles (GAAP) or International Financial Reporting Standards (IFRS) for the purpose for which they are intended - external financial reporting. But financial accounting models are not designed or intended for internal management.

Financial accounting models generate reports which often do not reflect an organization's operations adequately for internal decision support. In contrast, reports prepared by managerial costing models can provide such essential information. This is because managerial costing principles and concepts focus on reflecting and presenting the causal relationships in an organization's operational model. In contrast to financial accounting models, causality is a key principle for managerial costing.

"The possibilities for managerial costing are only increasing. The combination of data availability and appropriate tooling provides great opportunities."
Sander den Hartog, CEO, CostPerform

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FINANCIAL ACCOUNTING VS. MANAGERIAL ACCOUNTING

Below are some of the differences between Financial Accounting and Managerial Costing:

Issue	Financial Accounting	Managerial Costing
Principles	Revenue Recognition Historical Cost Matching	Causality – Cause and effect Analogy – Logical use of information to reflect operations.
Perspective	Backward looking Focus on specific time periods Sunk costs are relevant Profit is paramount	Forward looking Focus on continuum of operations Sunk costs are irrelevant Cash flow is paramount
Assets Included	Monetary & Tangible Resources, limited categories of Intangible	Monetary, Tangible, & Intangible Resources- as determined by decision needs
Depreciation	Time or Use based on historical cost	Capital Preservation Allowance based on Replacement Value and future resource needs
Cost Objects	Typically, only products. Only direct and indirect manufacturing costs included.	Products, Services, Customers, Distribution Channels, and any other object important to the business. All causal costs should be included, including administrative and selling/marketing.
Selling, General, & Administrative costs	Identified at the organizational level.	Applied as causality dictates to support decision needs.

Can financial accounting information be readily adapted to managerial costing? Many argue it can and Financial Planning and Analysis (FP&A) groups work hard to do so, conducting special studies and building corrective models, typically in Excel. But financial accounting general ledgers are built to support the financial statement model, and a great many cause and effect relationships and other important managerial costing concepts (described later) are simply not in that model. Adding managerial costing information back in is complicated and tedious, often resulting in critical information being unavailable on a timely basis for decision making. Therefore, nearly all organizations need a separate managerial costing model to support internal decisions.

How can the integrity of a managerial costing model be validated without standards? Managerial costing models must reflect the operations of the organization. If discrepancies are observed, they should be investigated: there are no “technical” rules to obscure this investigation. If the operating reality of an organization is not clearly reflected in the monetary information from its managerial costing model, then the model needs to be adjusted so that it reflects operations in a manner that is useful for decision making.

IMPLEMETING MANAGERIAL COSTING

Numerous managerial costing models exist, and many have software vendors and/or consultants that promote and support them. Each one approaches costing from a different perspective, contains valid costing concepts, but leaves other costing issues unaddressed. This can be confusing for accountants and managers. The figure below illustrates the problem:

Standard Costing, Project Accounting, Job Order Costing, Economic Value Added TM, Balanced Scorecard, Activity Based Costing, Intellectual Capital, Performance Pyramid, Business Excellence Model, Custom[illegible]tability, Strategic Management Accounting, Strategic [illegible]anagement, Supply Chain Costing, Cash Flow Retu[illegible]s Models, Target Costing, Kaizen Co[illegible]sting, Value Added Analysis, Process [illegible]ctivity Based Costing, Value engineering, Stock [illegible], Micro Profit Centres, Quality Costing, Non-value Added Cost, Human capital, Resource Consumption Accounting, Structural Capital, Relationship Capital, Brand Value, Total Cost of Ownership, Throughput Accounting, Triple Bottom Line, Beyond Budgeting, Risk-adjusted Return on Capital at Risk .....

Even most management accountants do not understand what the differences are!

Key to success is understanding the principles and concepts of managerial costing and finding a modeling approach that provides the information your organization needs for its internal decision support needs. The information from a good managerial costing model will be readily used in every area of the business, without any push from finance.

ORGANIZATION BUY-IN

Probably more problematic than the actual modeling is generating the organizational commitment to implement a managerial costing model throughout the organization. The accounting profession has used the term “one version of the truth” when it refers to the financial accounting/reporting model, and that misperception must be addressed and overcome.

The way to do that is to identify decision support gaps in existing financial information; the problems, expense, and lost opportunities those gaps cause; and the potential improvements in profitability that internal decision support information can provide. Causal managerial costing models also improve projections, scenario playing for strategic and tactical planning, and rolling forecasts because they reflect resource capacity, operating processes and volumes, and causally related administrative and support processes much more comprehensively.

“Decision support, scenario analysis, budget reviews, etc: many activities of the finance department are improved both in accuracy and efficiency by applying managerial costing.”
-Carlos van der Vorst, Founder CostPerform

Typical improvements from managerial costing models include:

Issue	Resolution
Arguments/debates over allocations to product or service cost	Causal assignments of resource costs eliminate arbitrary allocations
New production equipment is underused due to high depreciation charges on products	Incorporating a variable Capital Preservation Allowance that reflects the need to replace equipment as it is used
Selling, marketing, administrative activities not included in product, service, or customer cost	Segregation of costs required to support product, service, market and customer categories and application of those costs to the business segments they support
All capacity costs are "loaded" onto current sales	Segregation of excess capacity and its exclusion from costs assigned to current operations
Growth costs are "loaded" onto current sales	Segregation of sales, marketing, research and development, employee development and other costs intended to support growth and their exclusion from costs assigned to current business

KEY MANAGERIAL COSTING MODEL ELEMENTS

The core principle of a managerial costing model is causality. This means starting with a causal model of an organization's resources and processes and tracing resource use through various intermediate managerial objectives to the final managerial objectives. Final managerial objectives can be saleable products and services, a variety of business sustaining objectives, and/or internal and external projects.

Resource use (and associated cost) is not "pushed" through a managerial costing model, it is pulled by the performance of activities, and idle/excess capacity is left with the resource pools that were not fully consumed. Monetary units are added after the operational quantity model is built. This ensures causality is based on real resources and processes; and weak and non-causal relationships do not distort stronger causal relationships.

"By leveraging the data available in the company a very quick start can be made in applying managerial costing."
-Bert-Jan de Gier, CTO of CostPerfom

Causality has ten supporting concepts that ensure cause and effect is fully incorporated into a managerial costing model. (Adapted from the IMA Conceptual Framework for Managerial Costing)

1. Managerial Objectives – What resources are used to accomplish. This can be an intermediate or final managerial objective ranging from paying an invoice (intermediate) to building a building for sale (final).

2. Resource – A capability acquired or hired to generate a future benefit. Resources are the source of all costs in an organization. They are generally grouped into resource pools that create a homogeneous output to contribute to the creation of an intermediate or final managerial objective.

3. Cost – A monetary measure of consuming a resource or its output to achieve a specific managerial objective or making a resource or its output available and not using it.

4. Capacity – The potential for a resource to do work. Theoretical capacity is the most comprehensive and effective measure of capacity and means the resource is available for use continuously if owned and for the agreed upon period if hired or leased.

5. Work – What a resource does; a resource's output. Work is sometimes referred to as an activity.

6. Responsiveness – The nature of a resource pool's output toward creation of a managerial objective. Typically, this is a mix of fixed and proportional resources; though it can be all fixed, all proportional, or some other relationship. For example, a janitorial maintenance labor hour objective might require proportional resources of 1 labor hour, proportional benefits, and a quantity of cleaning supplies; and fixed resources of a supervisor, equipment, payroll capability, various fixed benefits, shop space, procurement support, uniforms, and Human Resource support for hiring & performance.

7. Attributability – How critical a resource is to the creation of a managerial objective. This measures the strength of causal relationships. If a resource could be taken away without degradation in the creation of a managerial objective, there is no causal relationship. If the removal of the resource causes an immediate stop to the creation of a managerial objective, the causal relationship is very strong.

8. Homogeneity – The characteristics of resources that can allow them to be grouped into a resource pool that produces an output. Typically, this means similar capacity, level of technology, or capability. For example, a 15-year-old production machine is still in use but should not be grouped in a resource pool with a brand-new production machine that has much higher speed, lower maintenance, and requires fewer operators.

9. Traceability – The characteristic of a resource that allows it to be identified as an input to a managerial objective based on clear evidence.

10. Integrated Data Orientation – Information about an organization's economic resources, events, and their corresponding monetary values, is free from traditional financial accounting conventions, allowing for the aggregation of elementary data elements and their values for any purpose.

"By applying true "cause-and-effect" modelling, one can compare the expected managerial costs with the actual costs. These comparisons trigger the right value conversations within an organization"
-Lim Vermeer, Founder CostPerform

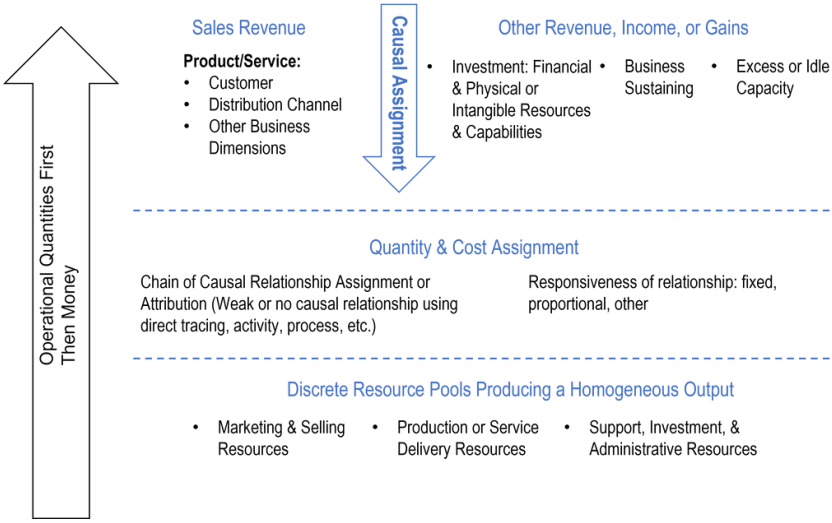
HOW TO BUILD MODELS

There are six steps for building a managerial costing model. (See the IMA Conceptual Framework for Managerial Costing for more detail.)

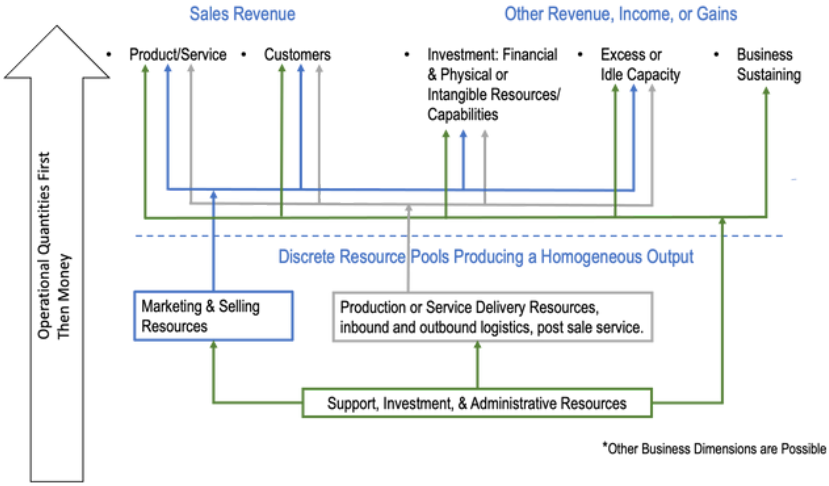
1. Identify the resources the organization retains for its use.
2. Identify the managerial objectives the resources support.
3. Develop an understanding of the cause-and-effect relationships between managerial objectives.
4. Design a model that captures the managerial objectives and their causal relationships.
5. Provide a description of the model to include its scope, intended uses, required inputs, outputs, and underlying assumptions and limitations.
6. Apply and maintain the cost and operational model.

These steps envision both an operations model that shows the flow of organizational resources and their associated costs captured in a manner that reflect the characteristics of the resources and processes causally. Where causal relationships don't exist or are weak, resources and their associated costs are treated in a manner that does not distort decision making.

The diagram below illustrates Steps 1-3 in a general way. Step 2 is illustrated with final managerial objectives; intermediate managerial objectives exist throughout the organization and have great impact on the structure of the cost associated with final managerial objectives.



The diagram below is a simplified illustration of Step 4. Keep in mind the arrows would be much more numerous because there would be many more resource pools in the bottom layer and many more final managerial objectives in the top layer.



For example, Human Resources can be attributed to all activities having employees, including Maintenance, Plant Supervision and Production Labor. Maintenance can be attributed to the equipment being maintained. Plant Supervision can be attributed to the production workers being supervised. Finally, both equipment and production labor can be traced to the product being produced.

To be effective, a cost model must not only assign costs to cost objectives, it must be able to predict costs under a wide variety of business scenarios. It must be able to calculate rates for not only measuring the current cost of products, services, and customers, but it must also be able to calculate rates for future business. In addition, it must also be capable of measuring the impact of decisions under consideration such as drop/add, capital investment, make/buy, or other decisions requiring incremental cost information. An effective model will also provide the basis for realistic budgets and forecasts.

A cost model built upon a causality-based operating model that accurately reflects the fundamental economics that underlie the business is the backbone of managerial costing. Without such a model, those involved in internal decision making must base their decisions on cost information that is questionable at best and, in many cases, totally inaccurate.

BENEFITS OF MANAGERIAL COSTING INFORMATION

Managerial costing information can improve profitability through better decision making because such information is more understandable to all elements of an organization. Cost information and the decision making around such information is often contentious in organizations. The primary reason is that financial accounting-derived cost information often doesn't reflect the operations of the organization. Financial personnel see the accounting and financial model results, operating personnel see the resources and processes, and the two visions don't match.

Managerial cost models are built on an operational model, eliminating this "double" vision problem. They create "usable" cost information. What does "usable" mean?

- The monetary information transparently reflects the characteristics of the operating resources and processes.
- The monetary information is timely. It must be current and consistently available when it is needed. Not the product of special study that is started after the debate has begun.
- The monetary information must be defensible. Anyone using the information from a managerial costing model should gain credibility from using it. It must be understood across the organization without debate and argument. Finance should not have to adjudicate the proper interpretation of the monetary information.

Deriving managerial costing information from financial accounting systems is not a good solution, and in many cases simply impossible. Traditional financial accounting systems are geared toward regulatory reporting and financial transaction processing; they tend to strip away operational information as monetary information is consolidated in the general ledger. The process to reconnect the monetary information with operational information can be complex, time consuming, and often fruitless because the information wasn't designed or collected to adequately reflect operational and economic characteristics needed for internal decision support. A separate managerial costing model is necessary to create highly usable information for internal decision support.

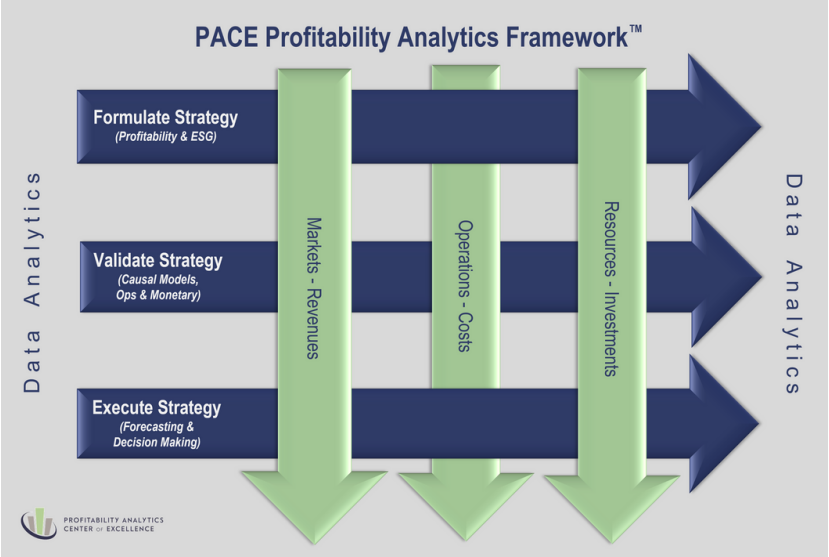
"Managerial costing allows you to financially model your specific business processes without having to comply to general accounting standards."
-Sander den Hartog, CEO CostPerform

NEXT STEPS

Having an effective managerial costing system is essential for profitably managing an organization. Relying on information prepared based on external reporting standards can lead to suboptimal, or even deleterious, decision making.

The key principle underlying managerial costing is causality. More information regarding this principle is available in PACE's Why Causality is Essential for Effective Performance Management Systems eBook.

Managerial costing is one of the foundational components of PACE's Profitability Analytics Framework. To learn more about the Framework, managerial costing's role within the Framework, and the other components of the Framework visit the PACE website.



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