Profitability Analytics Framework

PACE is an independent, non-profit, professional organization dedicated to helping companies strategically manage revenue, cost, and investments using analytic models to help make better, more informed decisions and drive greater value.

The PACE Profitability Analytics (PA) Framework is designed to provide a practical, though high-level, road map for the management accountant to acquire broad knowledge of his or her business and take an active business partner role in every key area of the business. The focus of the framework is on providing improved internal decision-support information throughout the organization to improve profitability and ensure management accountants are communicating and engaging in all areas of the organization in a valued way. PACE views profitability as a necessary condition for creating long-term sustainable value for investors and society at large. Governmental and not-for-profit organizations will also find many parts of the framework useful for improving their organizations.

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Executive Summary

The PACE Profitability Analytics (PA) Framework is designed to provide a practical, though high-level, road map for the management accountant to acquire broad knowledge of his or her business and take an active business partner role in every key area of the business. The focus of the framework is on providing improved internal decision-support information throughout the organization to improve profitability and ensure management accountants are communicating and engaging in all areas of the organization in a valued way. PACE views profitability as a necessary condition for creating long-term sustainable value for investors and society at large. Governmental and not-for-profit organizations will also find many parts of the framework useful for improving their organizations.

It is critical that management accountants expand the range of their analytic capability in the digital economy. Developing competence in data, information, and analytics from a much wider range of sources than the financial system is critical to the accounting profession’s survival and, more importantly, growth as automation and artificial intelligence become more capable of completing many structured, rules-based accounting activities.

The components of the PA Framework are inspired by the classic return on investment (ROI, DuPont) formula that has been a mainstay in management accounting and corporate finance for nearly a hundred years. In ROI’s original form, Donaldson Brown developed it as equal to investment turnover multiplied by profit margin.

$$\frac{\text{Profit}}{\text{Investment}} = \frac{\text{Sales}}{\text{Investment}} \times \frac{\text{Profit}}{\text{Sales}}$$

The PA Framework goes well beyond traditional financial accounting, reporting, and analysis. It incorporates modern revenue management techniques, modern managerial costing focused on internal decision support, and new views of investments as both tangible and intangible. The PA Framework also is built to support and enhance the strategic planning framework of an organization and ensure management accountants are actively engaged in the creation of strategic plans by providing data, information, analytics, and insights well beyond traditional financial reporting. The PA Framework can and should be expanded to contextualize causal-based cost and benefit models to support the goals, structure, and management of any organization.

The PA Framework incorporates a wide range of existing knowledge and focuses them on profitability. We strongly suggest referring to some of those core documents mentioned throughout this framework to gain greater depth of insight into the subjects or techniques.

Introduction

The accounting profession will radically change as technology, artificial intelligence, and advanced analytics and data capability change the face of business. Industry 4.0 is well known in manufacturing, but the same concepts are rapidly spreading into every facet of business and work. At the same time, value is being redefined around the world with more focus on environmental and social value; for example, the United Nations' 17 Sustainable Development Goals, and a wider range of metrics, and the six capitals (financial, manufactured, intellectual, human, social and relationship, and natural) defined by the International Integrated Reporting Council, both of which are displayed.

Sources: UN; International Integrated Reporting Council.

Profitability is presently measured most frequently using generally accepted accounting principles and regulated financial statements designed as "general purpose" financial statements for investors and lenders in capital markets. A closely related measure of profitability is return on investment (ROI); however, investment is an increasingly distorted denominator. In today's capital markets, only a small percentage of market value is, or ever has been, capitalized. Investment and capital are increasingly intangible. The increasing complexity of business goals calls for much more focus by management accountants on internal decision support requiring a different perspective, different information, and different models to reflect logical, causal factors influencing the business, its profitability as a necessary condition for continued existence, and a wider range of value-creation decisions in a diverse strategic landscape.

The PACE PA Framework is designed to support internal decision making within an organization's larger strategic/risk management envelope and expand the range of influence of management accountants by making it clear that they have an essential role supporting internal customers throughout their organization to optimally achieve strategic objectives.

The Internal Decision-Support Perspective

The internal decision-support perspective is grounded in scientific and logical principles. It is very different from regulated financial reporting that must follow the guidelines of standard-setting bodies and governments. The primary principle that applies to the internal decision-support perspective is causality or cause and effect. The financial information created for internal decisions must clearly reflect the reality of the resources, processes, customers, and situations. The focus must be on the real economic impact of the decision, not rules and principles created for capital market information and auditing. But, at times, this will involve needing to know the regulated financial accounting characterization due to tax or other regulatory impacts.

The responsibility for financial internal decision support often rests with the financial planning and analysis (FP&A) staff in an organization. Advancing internal decision-support activities requires new approach to FP&A as illustrated in Table 1.

Table 1: Old vs. New FP&A Concepts

OLD FP&A	NEW FP&A
Financially Focused	Operationally & Market Focused
Based on general ledger data	Creates causal data to reflect resources, processes, and markets
Uses traditional cost and revenue accounting methodologies	Employs managerial costing and revenue management concepts
Point solution orientation: analysis focused on supporting specific decisions	Oriented toward creating a system that generates information for decision support throughout the organization, enabling innovation
Focused on financial statements	Focused on economic reality

Adapted from Larry White and Raef Lawson, “Profitability Analytics,” *Strategic Finance*, July 2019, pp. 24-31, sfmagazine.com/post-entry/july-2019-profitability-analytics.

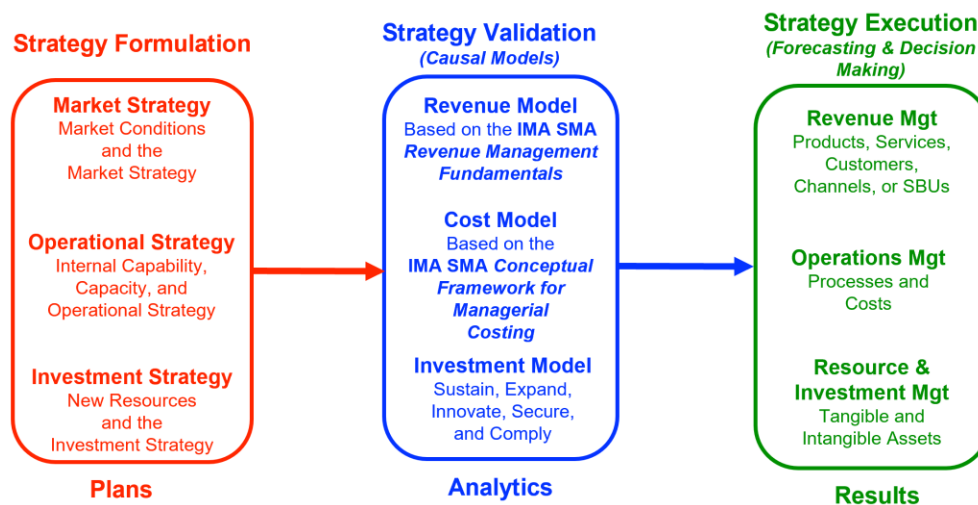
The internal decision-support perspective will often require separate financial information because it must have a much more direct, logical connection to strategic and operational data and processes. The level of detail or granularity will be driven by the nature and structure of a business and the strategic and operational decisions that must be made by managers at all levels of the organization. IMA (Institute of Management Accountants) has published Statements on Management Accounting that provide guidance on the cost perspective. The PA Framework broadens this guidance to include management of revenue and investments—both tangible and intangible. While stopping short of directly incorporating the broader concepts of societal and environmental value, the PA Framework provides a platform to extend the broader concept of value in those directions to ensure that the capability of management accounting is fully realized. The governing principle of cause and effect applies in all three areas of cost, revenue, and investment management.

Overview of the Profitability Analytics Framework

The PA Framework is composed of three primary elements, depicted in Figure 1.

1. Strategy formulation where an organization establishes its plan for identifying and addressing its market(s) and for mobilizing its resources to meet the demands created by that plan.
2. Causal models that directly enable the evaluation of strategy. These models employ the principle of causality to quantify in operational terms, monetize the revenues and costs of the organization's strategy, and then track the execution and performance of that strategy.
3. Strategy execution involves decision making that employs the outputs of the causal models to provide the organization's decision makers with the accurate and relevant information they need to make economically sound decisions as they execute and adapt tactics to meet strategic goals.

Figure 1: Profitability Analytics Framework



As these three major stages are more clearly defined in this document, management accountants will recognize familiar themes.

1. The vital importance of understanding and actively participating in all business operations.
2. The importance of internal and external data and using data objectively.
3. The importance of using analytics that reflect the reality of operations.
4. The importance of effectively monetizing processes and resources.
5. The importance of planning and forecasting.
6. The importance of evaluating decisions, measures, targets, and strategy.
7. The importance of a feedback loop to gauge progress against stated strategic objectives so that the appropriate adaptive actions and corrective actions can be taken.

All of these themes contribute to a more robust ability to assess risks and opportunities and taking actions that keep the organization on track.

The PA Framework also reflects the classic ROI (DuPont) formula that has been a mainstay in management accounting and corporate finance for nearly a hundred years. In its original form, Donaldson Brown developed ROI as equal to investment turnover multiplied by profit margin.

$$\frac{\text{Profit}}{\text{Investment}} = \frac{\text{Sales}}{\text{Investment}} \times \frac{\text{Profit}}{\text{Sales}}$$

Revenue, cost/expense, and investment (tangible and intangible now) remain the foundation of business management and a necessary foundation for broader forms of value creation.

Application to Management Accounting

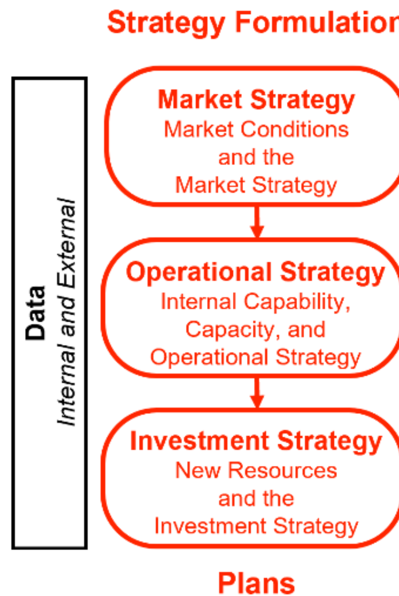
The PA Framework provides management accountants a guide to becoming more effective business partners and participating actively in the organization’s strategy development and the optimal execution of strategy. The rapid growth of advanced technology and Industry 4.0, including artificial intelligence, will tend to diminish the work associated with established, routine, and rules-based financial processes such as financial reporting, transaction processing, tax preparation, and so on. It is imperative that management accountants become strategic business partners and apply their analytic and modeling skills in new ways that will create value for their organizations. The PA Framework, and the SMAs associated with it, structure the activities associated with internal decision support in a logical, realistic manner. The PA Framework provides insight into how to approach a new world of analytics for internal decision support that is not well defined by generally accepted accounting principles, financial accounting systems that support regulated financial reporting, and traditional accounting education and training.

Some of the issues the PA Framework helps us explore are:

- The management accountant’s role in defining and evaluating customers, markets, and competition to develop market strategies.
- The management accountant’s role in defining and adjusting internal resources, capacities, capabilities, and competencies to meet strategic goals.
- The management accountant’s role in creating and using causal nonfinancial, operational models to support all the organization’s value-creating activities—both revenue and production/service delivery.
- Causal financial modeling that applies the principles of causality in revenues and costs in order to clearly reflect economic reality for internal decision support.
- New approaches to forecasting and planning for internal decision support based directly on the organization’s strategy, processes, and resources.
- A pathway for FP&A functions to expand their partnerships and develop more systematic approaches to modeling and collecting data for internal decision support.
- A more holistic approach for improving financial metrics and plans for managing, evaluating, and improving customer value.
- A more holistic approach for improving financial metrics and plans for managing, evaluating, improving, and investing in resources and assets—both tangible and intangible.
- A more holistic approach for improving financial metrics and plans for managing, evaluating, and improving an organization’s processes and operations from production and service delivery to support, administrative, sales, and marketing.
- The measurement of outcomes in both quantitative and financial terms to isolate and understand causes and effects, which in turn will enable effective adaptive and corrective actions.

Strategy Formulation

Figure 2: Strategy Formulation



Formulating an organization's strategy is a complex and innovative process that requires a clear understanding of internal capabilities and processes, external environment and trends, and competitors and consumers.

The purpose of addressing strategy formulation in the PA Framework is to highlight the contributions management accounting knowledge and analysis can make in providing high-quality, relevant internal decision-support data and information into the three primary components of strategy formulation—evaluating the external market, evaluating internal capabilities to capture market share, and evaluating investments in the business.

Market Strategy

The market strategy describes the current and expected conditions and opportunities in the market and the organization's plan to exploit those opportunities and capture value. It looks at the causal factors driving the market and the organization's market share and revenue.

The primary goal of a marketing strategy is to ensure the organization has a customer and market orientation. While this should be a state of mind for managers and employees, a marketing strategy also needs to be supported with structured processes to gather information and intelligence from internal and external sources. Naturally, the level of structure and sophistication will be driven by the size of the organization. Going a step further, the data and decisions from previous market strategies should be subject to periodic assessment of outcomes and indications of their quality and success. While there is a strong argument to be made for creativity in marketing, there is also tremendous benefit in finding and being aware of consistent

predictors of success or failure. A structured approach to gathering market and customer intelligence is also an opportunity to apply continuous process improvement to find or create better, more predictive, and insightful data. As a function of the classic Moore's Law, costs of data collection, storage, and analysis are constantly falling while data availability from many sources is growing rapidly. These are favorable trends for organizations to invest and establish a solid program of customer and market orientation. Many of these tasks are well suited to the skills and discipline of management accountants who analyze financial and nonfinancial data with objectivity. Management accountants should be involved in developing the business case for improving internal and external data and information collection systems to improve an organization's market and customer orientation.

Another aspect of expanding the value of management accounting is based on understanding the value that organizations can provide to customers. In some situations, this is a qualitative evaluation; but in many situations, particularly business to business sales, there is also a quantitative, financial evaluation of the product's or service's impact on the value stream and profitability of the customer, and even the customer's customer, that can provide insights into customer pain points and serve as an inspiration for creative solutions.

Another part of understanding the market is understanding competitors. Management accountants are in a strong position to provide financial analyses of competitors, which can support other competitive evaluations of competitor capabilities.

After understanding the organization's customers, market(s), and competitors, it is important to define the unique selling proposition(s) of the organization's products or services. This is closely related to the organization's competitive advantage and the customer's needs and pain points. Management accountants can be instrumental in defining business cases for customers to take advantage of products and services that may be part of the unique selling proposition(s).

A final element of developing a market strategy is defining the marketing goals with questions such as: Are you trying to increase revenue from existing customers and markets? Are you seeking new prospects and new markets? Is your goal to grow market share, increase revenue, increase customer lifetime value, or something else? Management accountants have the skills to assist in risk and opportunity assessments of the various options. They are also skilled at helping to frame the business cases and budgets for which options and how many opportunities to pursue.

Operational Strategy

An operational strategy describes the resources and capabilities available to the organization and how they are aligned to execute the market strategy. Operational capability is an important element in defining an organization's strategy and its competitive position. Operations are not just about production and service delivery. Almost any administrative, support, or direct operation can offer a competitive advantage. Delivery, after-sale support, order taking/management, managing/offering financing, human resources management, research and

development (R&D), design, or nearly any other organizational competency can contribute to competitive advantage.

Organizations that have a superior understanding of their resource capacities, process capabilities, and the ability to adapt and improve the value they create for customers will be in a better position to develop effective strategies. Market strategy should leverage existing capacities and capabilities but should not necessarily be constrained by current limitations. Operational resources and processes are often scalable in a variety of ways. The risks and opportunities to grow and adapt resources and processes are part of developing an effective operational strategy.

Management accountants should play an active role in ensuring organizations have a clear understanding of their resources and processes, and how they contribute to creating value. Increasingly, they must go beyond traditional budgeting and financial accounting records to maintain a broader view of resources and assets. This broad view must be based on the following particulars:

- Human resources, not as individual positions or expenses, but as the assets of high-performing teams.
- Capital assets, not as depreciable equipment, but as capabilities requiring continuous recapitalization.
- Excess or idle capacity as an opportunity for savings, expansion, or both.
- Brand marketing and R&D, not as expenses, but as intangible value-creating assets also requiring continuous recapitalization.
- Social and public perception and reputation as a valuable asset.

At the operational strategy stage, the focus is primarily qualitative—conceptually evaluating how operational improvements, changes, expansion, or contraction will need to occur in order to support the market strategy. For example, are the changes achievable based on resource and process capacities and capabilities? Similarly, are there constraints that must be applied to the market strategy? These questions, along with others, will be examined in the next stage of the PA Framework.

Investment Strategy

An investment strategy for long-term value creation and internal decision support may be the most long-term element of strategy and will often determine how far into the future the market and operational strategy must look. Much depends on the nature of the business and the investments that support the business.

Investment strategy in an internal decision-support context must consider tangible and intangible investments. Advertising, R&D, human resources training, process improvement, community and governmental engagement, and other investments are presented as annual expenditures on regulated financial statements. But for strategic investment planning, the nature and purpose of some traditional expenditures must be carefully considered and are most appropriately evaluated alongside traditional capital investments.

Management accountants have always been active in evaluating capital investments, from equipment to business acquisitions, for economic viability and determining financing options. The PA Framework advocates applying some of the same logic to traditional expenditures that provide multiyear benefits by redefining them as intangible investments or assets.

The Role of Data and Analytics

Internal and external data should be used to guide the formulation of both market and operational strategies, and the results of the market strategy should provide input for the operational strategy.

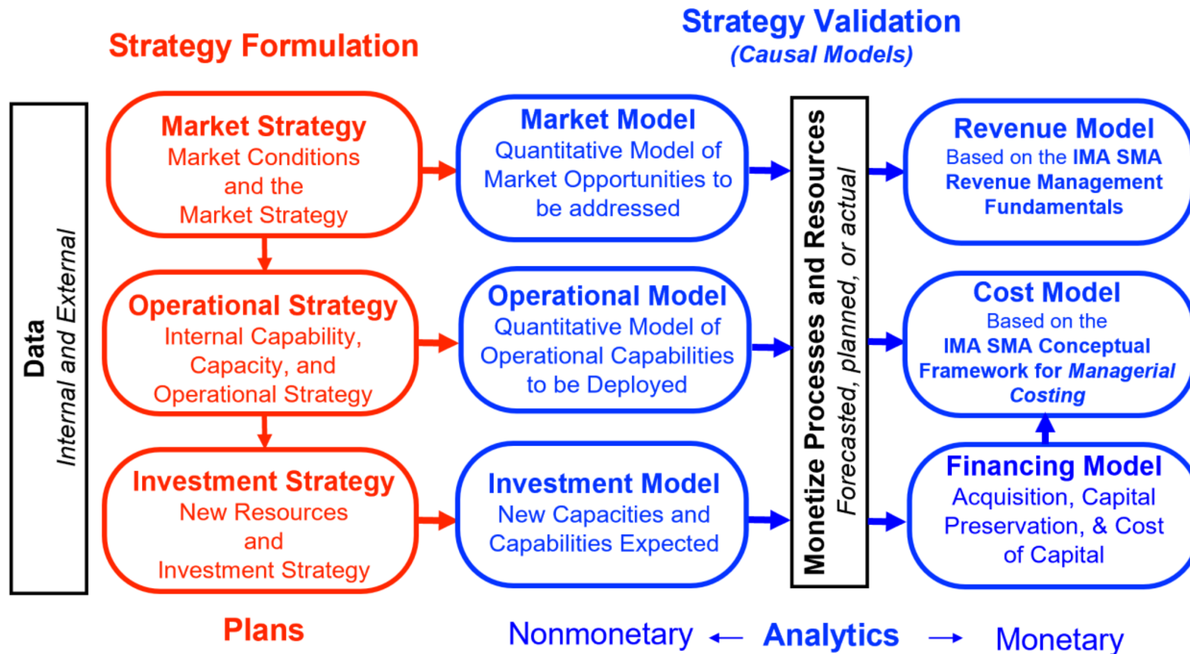
Internal data include a clear historical understanding of customer needs, customer buying and ordering patterns, customer paying patterns, and customer-driven costs for selling, distribution, inventory, financing, collections, and after-sale support. There should be an understanding of both successes and failures in selling and post-sale servicing. Operational data are also important in considering strategies. We need to understand where there is capacity and capability to expand, what constraints exist, where we have experienced success, and where failures have occurred. At this point in developing strategy, the focus is on the business impact resulting from evaluations of categories and segments of customers and the necessary operational capabilities, rather than the granular financial details. The ability of the organization to consider new investments is also a primary element of internal data.

External data are a rapidly growing and seemingly infinite area of endeavor. The planning for the types of external data an organization examines and collects is, in fact, part of the strategic planning process. The range of external data goes from global economic forecasts to technology forecasts to tracking consumer and competitor behavior. Large, global organizations often begin with multiscenario planning and evaluation exercises to guide their strategic planning. Many organizations are investing in the ability to better track customer and potential customer behavior with web-based research. Some external data are readily available, but the most valuable data about customers and markets will need to be planned and collected over a period of time. The strategy process should carefully evaluate data shortfalls and identify data not used or considered unhelpful so that changes can take place to improve future strategic planning. Operationally, the organization should be intimately aware of the state of development or market for key resources and technology. Human, IT, distribution, customer service, and internal support and administrative resources and processes should also be in a continuous state of development.

Strategy Validation and Causal Modeling

Strategy validation is a function of expected causality—internal resources and capabilities in coordination with external market forces that result in or cause desired outcomes. The organization's market, operational, and investment models (monetized as revenue, cost, and financing models) describe the organization's management of causal factors to achieve desired monetary outcomes (see Figure 3).

Figure 3: Strategy Validation



The market model and revenue model, based on the market strategy, describe the organization's structure and processes to achieve market establishment and revenue goals. These processes involve key revenue factors including pricing decisions, capacity management, marketing campaigns, partnerships in channels, and compliance with regulations.

The operational model and cost model, based on the operational strategy, lay out the organization's structure and processes to achieve operational excellence and cost goals. Key economic causality concepts, explained in IMA's Conceptual Framework for Managerial Costing (CFMC), are essential to building a model that effectively represents actual resource and cost flows in the organization.[1]

The financing model, based on the investment model, identifies tangible and intangible investments in the process of being acquired, and the new capacities and capabilities these

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[1] Larry R. White and B. Douglas Clinton, *The Conceptual Framework for Managerial Costing*, IMA, September 2014, www.imanet.org/insights-and-trends/strategic-cost-management/conceptual-framework-for-managerial-costing.

investments will bring to the organization. New investments are then added into the operational model, as they impact the current planning period. The monetary impact of investment spending, capital preservation needs, and the cost of capital become inputs to the cost model. This is also the stage where financing strategies and viability for new investments are defined.

The Market Model

Traditionally, market models are based on strategies involving plans about the product or service positioning, pricing, promotion, and place (that is, distribution/delivery channels), all of which are key to effective customer segmentation and service. These four elements help the organization assess and plan for engaging, acquiring, and serving customers profitably. Key questions for each of these four elements are described as follow:

Product or service positioning:

- What type of product/service do customers need? What keeps the customers awake at night?
- What unique value does the organization have to offer that meets customer needs?
- What features do customers want? Will the organization offer a single product or service, or will it have multiple options to target different needs or segments?
- How will the organization position its products and services?

Pricing:

- What price are customers willing and able to pay? Are there multiple segments with different price points?
- What factors will influence pricing? What are the competitors' offerings and pricing, and how does the organization's product or service compare?

Promotion:

- Where do customers typically look for a solution to their needs? Where will target customers be most receptive to learn about the product or service?
- What is the promotion strategy? How can the organization promote so that customers take action?
- What media do target customers access for information and decisions?

Place:

- What place will the organization choose to connect with customers?
- How do competitors get their product or service to the end customer?
- What is the optimal, fastest, and most cost-effective way to deliver the product or service to the customer?

The most important factor to keep in mind in developing a market model is customer value and customer service. Management accountants in many instances can help articulate the customer value proposition(s) for marketing and sales personnel and assist in evaluating their market modeling efforts.

At the end of the market modeling phase, there should be relevant estimates of the market demand associated with various options, order of magnitude estimates of the costs for promotion options, and requirements for any changes to operations—administrative, support, and/or production/service delivery.

The Operational Model

Based on the marketing model requirements, operational planning can begin considering options to meet the expected demands on the organization's resources and processes. The operational model is primarily about capacity, capability, and operational quantities. Money is not the primary consideration in this evaluation. The primary question to be answered is what can be done within the realm of the organization's capability and existing or acquirable resources? The operational model is not merely a model of production- or service-providing operations. To be effective, it must include the entire organization because every component of the organization contributes to its success. The model must be causal. For example, sales personnel time should be modeled to the products and services sold as well as the customers who purchase. Collection efforts in finance should be modeled to the supported customers. Some organizational components like legal or public relations should be modeled to support various business-level or business-sustaining objectives if causal factors to products, services, customers, distribution channels, and so forth cannot be identified.

The first step in making these assessments is to assess the capacity of the resources needed in their operational quantities. For example: Are current resources sufficient? Has excess and idle capacity been sufficiently measured, analyzed, and considered? Can existing resources and processes be reconfigured? Are new resources required? Can they be acquired and made operational in sufficient time?

A closely related concurrent step is to evaluate the capability of the existing resources. For example: Can existing resources perform in the manner and to the specifications required? Do the skills exist within the organization? Are the skills available to be taught or hired?

Once the options are operationally evaluated for viability, it is likely some reduction in viable options will occur or options will be modified.

Management accountants should be engaged in this process to understand the dynamics of the organization's operations and processes that will need to be modeled in monetary terms.

The Investment Model

Both the operational model and market model may require tangible and intangible investments in new capacity or capability as they are refined to meet the demands of the strategic plans. The goal of the investment model is to define the specifications for new investments and evaluate if the capability exists and can be acquired. In the case of acquisitions of new businesses, candidates are sought and evaluated. Although money is not the focus of the investment model, the ability to fund or finance investments is a more significant constraint over investment

spending than over the market and operational models and will likely need to be brought into the evaluation.

Management accountants must be involved in both the requirements planning and the spending or financing evaluation. Understanding the strategic fit and impact of new tangible and intangible investments is a key factor in evaluating the risks and opportunities associated with determining spending and financing options.

Monetizing Processes and Resources

The stage of monetizing an operational model, the resources and processes that create value for the company, is not usually called out as a specific stage of management. Most often, it is assumed that the budget/planning process or the financial statement forecasting process is used to accomplish this step. The CFMC makes it clear that there is a vast and fundamental gap between costing for internal decision support that must clearly reflect operational cause-and-effect relationships and regulated financial reporting based on national or international standards.

Internal decision-support information requires that there first be an operational model of the organization and that costs be collected to *reflect* the characteristics of the operational model. The exactness of the reflection will depend on the types of decisions an organization needs to make. Factors to be considered include complexity of operations, magnitude of profit margins, volume and range of products/services, and the complexity of customers, to name a few (see the IMA Statement of Management Accounting *Costing System Attributes that Support Good Decision Making* for additional information).[2]

Management accountants will have the lead in designing monetary models that clearly reflect the nature and economics of markets, operations, and investments. Monetary models must be based on operational cause-and-effect relationships and avoid distorting the representation with weak and noncausal allocations, irrelevant depreciation, or mishandled fixed and variable costs.

The Revenue Model

Revenue management is a key management issue, often the core strategy focus, for most organizations. But management accountants have traditionally focused most of their attention and resources on cost control and investment analysis, with relatively less involvement working with sales and marketing managers to build and sustain revenue for the organization. The PA Framework illustrates the importance and opportunity for management accountants to apply rigorous causal modeling, analytics, and systematic support of revenue drivers that can dramatically move forward value creation. At its core, a revenue model enables an organization to effectively assess its market and optimally segment customers, which is key to aligning

[2] IMA Managerial Costing Task Force, *Costing System Attributes That Support Good Decision Making,* IMA, October 2019, www.imanet.org/insights-and-trends/strategic-cost-management/costing-system-attributes-that-support-good-decision-making.

resources and activities in order to deliver the right product at the right price at the right time to the right customer.

Traditionally, most revenue management techniques are focused on establishing differential pricing for customer segments based on inventory capacity and variable demand. But these yield-optimization pricing models are limited to particular industries such as airlines, hotels, restaurants, and rentals. PACE's *Revenue Management Fundamentals* provides a detailed structure for revenue models that can be applied by management accountants to all types of organizations in all kinds of markets. The revenue model is based on two key revenue management tools: demand management and resource management. Demand management involves aligning data and analysis to identify segmented pricing bases and allocate capacity (inventory) for optimal capture of the market value created by the organization. Resource management is focused on product configuration tailored to customer needs and duration control mechanisms that effectively manage timing of customer demand.

The revenue model is not a one-size-fits-all model but should be deployed to recognize and support the different environments in which organizations operate, as well as different organizational structures and objectives. Cost-benefit considerations guide the appropriate intensity of revenue management models. Revenue drivers, combined with cost drivers, become a powerful tool for modeling and analysis built on causality and facilitating analogy, as introduced in the CFMC. Management accountants who understand revenue models in the context of the PA Framework can bring forward this knowledge to the design of performance measures and control systems, and partner with executives to accelerate strategy and profitability.

The Cost Model

Historically, there are many forms of cost models, such as static budgets, flexible budgets, product cost, variable cost, standard cost, activity-based cost, resource consumption cost, and others. Cost analysis and management has traditionally been the responsibility of management accountants, and the quality of the results has been extremely mixed when viewed from an internal customer perspective.

The cost model envisioned by the PA Framework is an accurate and reflective model of the operational model. This means that a financial accounting system geared toward regulatory financial reporting may not capture the managerial cost information for internal decision support in the necessary way or at the correct level of granularity. Remediating this can range from simplifying the general ledger to meet minimum financial reporting requirements and deploying a more comprehensive management accounting system, to implementing additional systems or procedures to reanalyze and reconfigure general ledger information to make it more relevant to the operational model.

A critical piece of information for evaluating profitability is a strong understanding of fixed and proportional (variable) costs as defined by the concept of responsiveness in the CFMC. Maximizing profitability when segmenting customers requires high-quality and continuous information on marginal costs to evaluate against revenue.

The critical success element of an organization's cost model is that it reflects economic reality for business decisions. The customers of this model are executives, managers, supervisors, teams, and employees working to make decisions that contribute to optimally achieving the organization's strategic objectives and long-term value.

For more information on designing managerial costing systems for internal decision support, refer to IMA's Statement on Management Accounting *Developing an Effective Managerial Costing Model*.[3]

The Financing Model: Acquisitions, Capital Preservation, and Cost of Capital

The financing model in the PA Framework serves several purposes.

1. *Acquisitions*: Financing acquisitions and investments can be accomplished with debt, equity, or current cash flow based on an organization's situation. Overseeing or performing financing evaluations and making recommendations are a traditional part of the management accountant's job. This work can serve as an important constraint on strategic plans or allow a more aggressive pursuit of opportunities for competitive advantage.

   It is also important for organizations to track their investments and assets for accountability—to ensure they are being maintained and performing as planned. Traditionally, this has been done for capital assets and reportable intangible assets with financial accounting record keeping, and for physical assets by engineers for maintenance and replacement planning. The PA Framework suggests extending this endeavor to longer-term intangible assets to address questions like:
   - Are we maintaining our brand(s)?
   - Are we improving our human resource capability?
   - How much have we invested in community and government relations?
   - Are we investing sufficiently in R&D for our future?

2. *Capital preservation*: Typically, capital preservation work by accountants is handled through depreciation or amortization schedules dictated by financial reporting or tax reporting rules. But the PA Framework does not support the traditional concept of depreciation based on the passage of time. An asset can be fully depreciated and still operational. The authors have seen too many situations where depreciation expense, or the lack of depreciation expense, distorts decision making and results in profit-impairing behavior. The PA Framework advocates a level capital preservation allowance for all assets regardless of age. The capital preservation allowance will be based on the total amount of capital assets and the causal factor driving their preservation needs. For specific assets, the allowance amount will vary based on the use in the relevant period of

[3] IMA Managerial Costing Task Force, *Developing an Effective Managerial Costing Model*, IMA, April 2019, www.imanet.org/insights-and-trends/strategic-cost-management/developing-an-effective-managerial-costing.

time and the resources required to replace or preserve the capital asset. The capital preservation allowance should never be zero but should continue as long as the asset is productive.

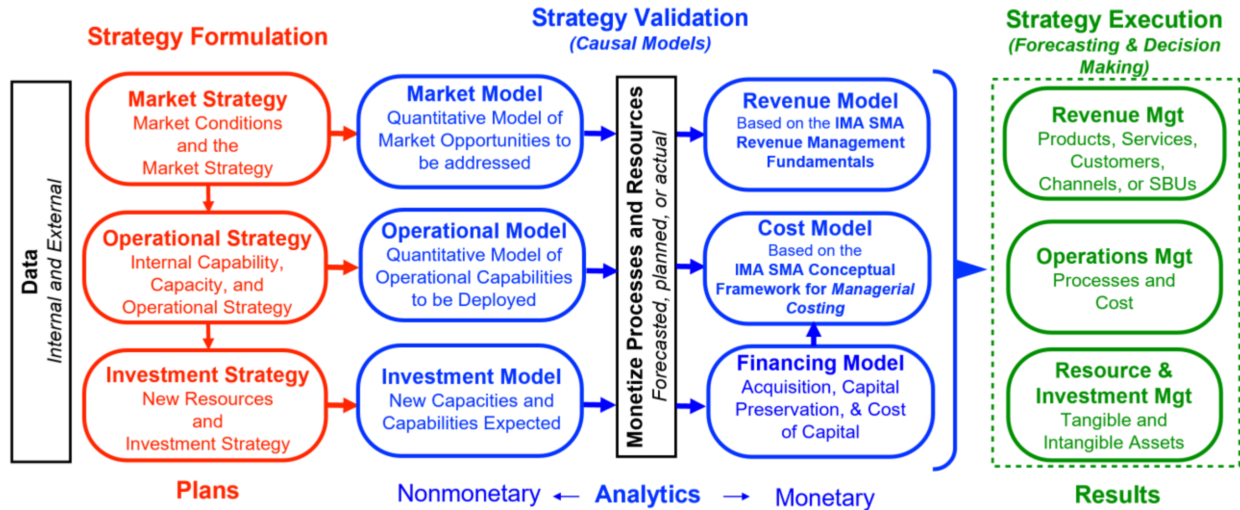
How should the capital preservation allowance be applied to intangible assets? Consider the scenario where, due to poor economic conditions, an organization must scale back its brand advertising expense. If the organization is tracking its brand(s) as an investment, it may establish a level of advertising necessary to maintain the value of its brand(s). If brand advertising falls below the maintenance level, the company is essentially still consuming the brand value. Should accountants recognize and communicate to the organization that consumption in excess of annual brand maintenance should be evaluated as part of the product or service cost? Another example would be categorizing advertising into an amount necessary to maintain the current level of business and treating this amount as an expense, then considering how much more would be needed to grow the business and capitalizing this amount as an intangible asset in branding.

The management and tracking of intangible assets is a growing component of value management and profitability analytics, but it is not well defined or tested. The PA Framework advocates that management accountants consider how to best improve communication within the organization on the value or loss from the development and use of tangible and intangible assets.

3. *Cost of Capital*: The cost of capital is typically limited to evaluating investments and then no longer used as a management tool. The PA Framework advocates making the cost of capital a standard element of profitability analysis by including it in cost modeling. Products, services, and business objectives that require more capital are more expensive and, typically, less profitable. For example, a customer that requires the organization to hold a certain level of inventory for immediate delivery is typically more expensive than a customer that takes immediate delivery and stores their own inventory. Manufacturing a product for sale requires more resources than the wholesale purchase and retail of the same product. The cost of manufacturing capital demands a greater return on that sale compared to an item bought and resold. Management accountants who understand the concepts of residual income and economic value added (EVA) will incorporate a cost of capital into monetary modeling in the PA Framework.

Strategy Execution: Forecasting and Decision Making

Figure 4: Strategy Execution



Strategy execution is where plans and models are put to the test to determine where an investment in advanced management accounting personnel and systems will pay the largest dividends. Strategy execution involves forecasting, tactical planning, and decision making throughout the organization to achieve strategic objectives. Accurate causal models are essential to effectively managing the organization toward strategic success and long-term economic viability.

- Effective revenue management requires a clear analysis of profit potential across the organization's portfolio of key business segments (products, services, customers, channels, strategic business units, and so on). These profit analytics are accomplished using both the revenue model and the cost model.

- Effective operations management takes place in the day-to-day management of supplies, operations, and processes that form the structure of the organization. Informed by the revenue model and cost model, managers are able to capture value for the organization by focusing resources on key profit factors across the portfolio of revenue and cost targets.

- Effective resource and investment management of both tangible and intangible assets must be oriented directly on improving performance of the organization's revenue model and cost model.

With decision making based on causal models that represent the organization's strategy, markets, and operations, managers can confidently establish performance measures with incentivized targets that are achieved as critical initiatives are rolled out across the organization.

Revenue Management

Revenue management concerns decisions involving product/service configuration and customer demand duration control (resource management), as well as determining pricing basis and allocation of inventory/capacity in the market (that is, demand management). With respect to resource management, accountants should work with managers to assess product and service features that are profitable with respect to revenue and cost factors, and design promotion and delivery processes that optimize customer behavior. Management accountants also support critical decisions on demand management by establishing segmented pricing programs and deploying inventory and service capacity to increase the organization's ability to meet customer demand while minimizing resource surplus.

As described in the *Revenue Management Fundamentals* SMA, management accountants can establish data collection systems on market and sales data, including financial transaction data and nonfinancial customer/market engagement data. These data are foundational to analysis and modeling systems that provide key insights on revenue behavior causality and market demand patterns, stratified by customer segments. Combining causal market analysis with well-developed models of revenue and cost drivers will strengthen the accuracy and speed of scenario planning processes that accountants and managers use to achieve key strategic goals.

Effective organization-wide communication of performance results and customer reactions enables more components of the organization to contribute ideas and innovations to enhance revenue performance. Management accountants can be highly instrumental in building the systems, processes, and analytics that can facilitate a nimble and innovative organization in the market. Management accountants who understand operational and financial metrics and dynamics in the organization can facilitate risk analysis, contingency planning, and preparation for a variety of market outcomes to secure and improve revenue performance.

Operations Management

Operations management emphasizes cost, quality, and timeliness. (Safety, environmental, and many other metrics are also important but are not in the scope of this SMA discussion.) Profitably managing the balance of cost, quality, and timeliness across all company operations requires a clear understanding of how process impacts (causes) revenues and costs for the organization. In operations management, a great deal of emphasis is placed on production or service providing operations for a company's key sales output. The PA Framework advocates an enterprise-wide view of operations—marketing operations, sales operations, human resources operations, finance operations, other administrative operations, logistics, delivery, warranty and service, customer support, and so forth. This enterprise-wide view is critical as all operations in the organization can affect the organization's ability to deliver value to stakeholders. Naturally, the greatest management emphasis should be placed on those operations that engage the most resources and have the greatest impact on customers.

Optimizing operations and processes for excellence is a highly transferable skill within an organization. It should not be bounded by organizational stovepipes and should be considered for external transfer—both forward to customers and backward into the organization's supply chain.

During strategy execution, organizations should maintain a continuous program of operational improvement, reserving some improvement capability for adaptive change based on market conditions. Organizations often engage in risk planning for a business downturn, but planning for greater than expected success is also critical. Not being able to meet demand is a huge opportunity cost that goes unrecognized too often.

Operational managers are able to make significant improvement using only nonfinancial performance information by optimizing the use of resources, but timely monetary information can greatly improve the ability to plan and prioritize orders, maintenance, and improvements for greater impact on profitability.

The PA Framework advocates the use of high-quality managerial cost information developed for internal decision support using the principles and concepts of the CFMC. Useful managerial cost information must reflect operations and be consistently available when it is needed. In the increasingly technological Industry 4.0 world, managerial cost information must be integrated with operational information. This means the FP&A function of finance must move beyond special studies and analysis to systems and continuous analytics.

The PA Framework recognizes that the word "value" increasingly has a broader meaning than profitability as organizations incorporate environmental and societal value creation or destruction into their value analysis. The operational and cost information needed for internal decision support will also contribute to generating broader value analytics and managing the impact of those analytics.

Resource and Investment Management

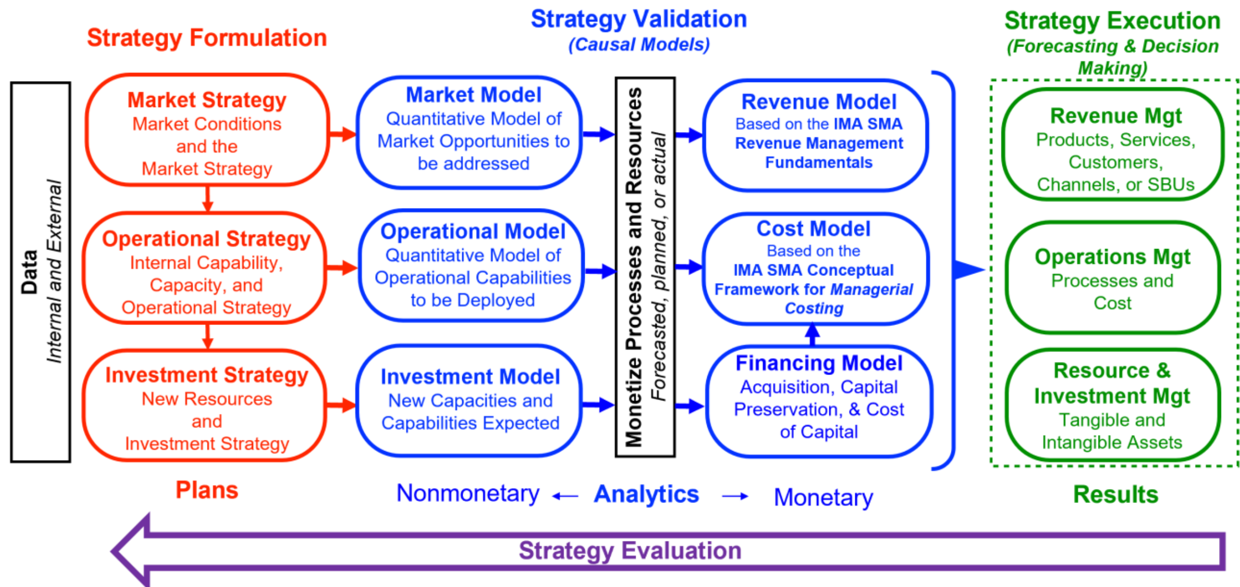
Resource and investment management involves capital assets, human resources, intellectual property, R&D, and other essential tangible and intangible assets in or being acquired by the organization. These assets can be effectively managed with a strategic focus only if decisions are tied back causally to strategic directions for revenues and operations.

To a greater extent than revenue and operations, the management of resources and investments must look beyond immediate performance and be managed for longer-term strategic direction. For example, a sudden economic downturn may hurt revenue and leave operations with substantial idle time. But prior to cutting human resources, the value of current team capability and performance, and the longer-term ability of the organization to attract high-quality people, must be considered. Similarly, reductions in maintenance, modernization, or R&D may weaken an organization's ability to compete in the future.

The PA Framework advocates eliminating the distinction between intangible and tangible assets except where tax considerations have a material financial effect on the value analysis. It is more important to consider the impact on future profits and value than an artificially constructed financial metric.

Strategy Evaluation

Figure 5: Strategy Evaluation



Strategy evaluation occurs continuously as decisions are made and results are realized. It is critical that management accountants assist management at all levels of the organization to understand what worked as predicted, better than expected, and worse than planned.
This feeds into continuous improvement, decisions to revise strategies and tactics, and the formulation of new strategies.

Strategy evaluation, however, is not a mechanical presentation of data, facts, and information. At its core, strategy evaluation is about leadership and motivation for the future improvement of the organization. Improvement requires a culture that evaluates information clearly and comprehensively, learns from both its successes and failures, and enables and encourages greater learning opportunities.

Strategy evaluation is both a leadership activity and a component of the strategy process. Care must be taken to establish measures and metrics that will gather the information and reinforce actions in alignment with strategy. Performance management policies and practices from the board of directors to the first-level employee must encourage strategic thinking and actions that look beyond the immediate situation. Finally, continuous improvement and learning must be built into the strategic planning process and the culture of the organization.

Measures and Metrics

Today there is nearly an infinite array of metrics for businesses. The PA Framework advocates the use of measures and metrics that promote long-term profitability. This can be a challenging

path in a world full of short-term financial reporting-based metrics and a growing inventory of societal and sustainability metrics. All of these metrics are important, but organizations must balance the appropriate metrics in order to be profitable in the long term and accomplish a wider range of goals.

Management accountants have a critical role balancing short-term, external financial results and cash flow considerations against actions necessary for long-term sustainable profitability and value creation. This balancing is challenged by executive and board performance incentives that are overweighted toward short-term externally oriented financial results. These types of performance incentives can turn executives into "game players" who manage the company for the short-term "test" of success and high current stock price in capital markets rather than "stewards" who manage for long-term sustainable value creation—both financial and societal.

Performance Management

Performance management policies and practices can be a huge roadblock or a great facilitator for strategy evaluation. The PA Framework recognizes the vastness of the topic and simply encourages organizations to consider how their performance management policies and practices impact tactical analysis, strategy evaluation, risk taking, learning, employee behavior, and the adaptation and development of new, successful strategies.

It is often financial metrics and compensation that have the most direct impact on performance management, and management accountants are in a critical position to provide advice and expertise on those practices.

Continuous Improvement

Developing a culture of continuous improvement seems like an obvious and valuable objective to pursue, but efforts to create such a culture often fail. Damaging or destroying a culture of continuous improvement is far easier than building one. Creating a culture of trust and performance is a delicate balance. Ideas like accountability are challenged by encouraging risk and accepting failure as a learning experience.

Management accountants can provide the information and insights to support continuous improvement and a learning culture by achieving a broad understanding of their organization's business and processes, the financial and nonfinancial data and information, and the timing of the information about key business drivers and results. It is important that information be put in a process and business perspective so that initial or short-term results are not misused or taken out of context.

Summary

The skills and knowledge of management accounting are ideally suited to support increased profitability across the organization. The only real barrier is the willingness and ability to partner and engage.

The PA Framework defines many discrete areas of engagement and makes suggestions for how to engage to add value. Naturally, each organization will have to adapt the discussion provided to its business and circumstances. View this as a creative activity! Explore new opportunities to better engage management accounting resources. It will improve the organization's business, advance the accounting profession, and make management accounting more valuable as a resource for achieving business success.