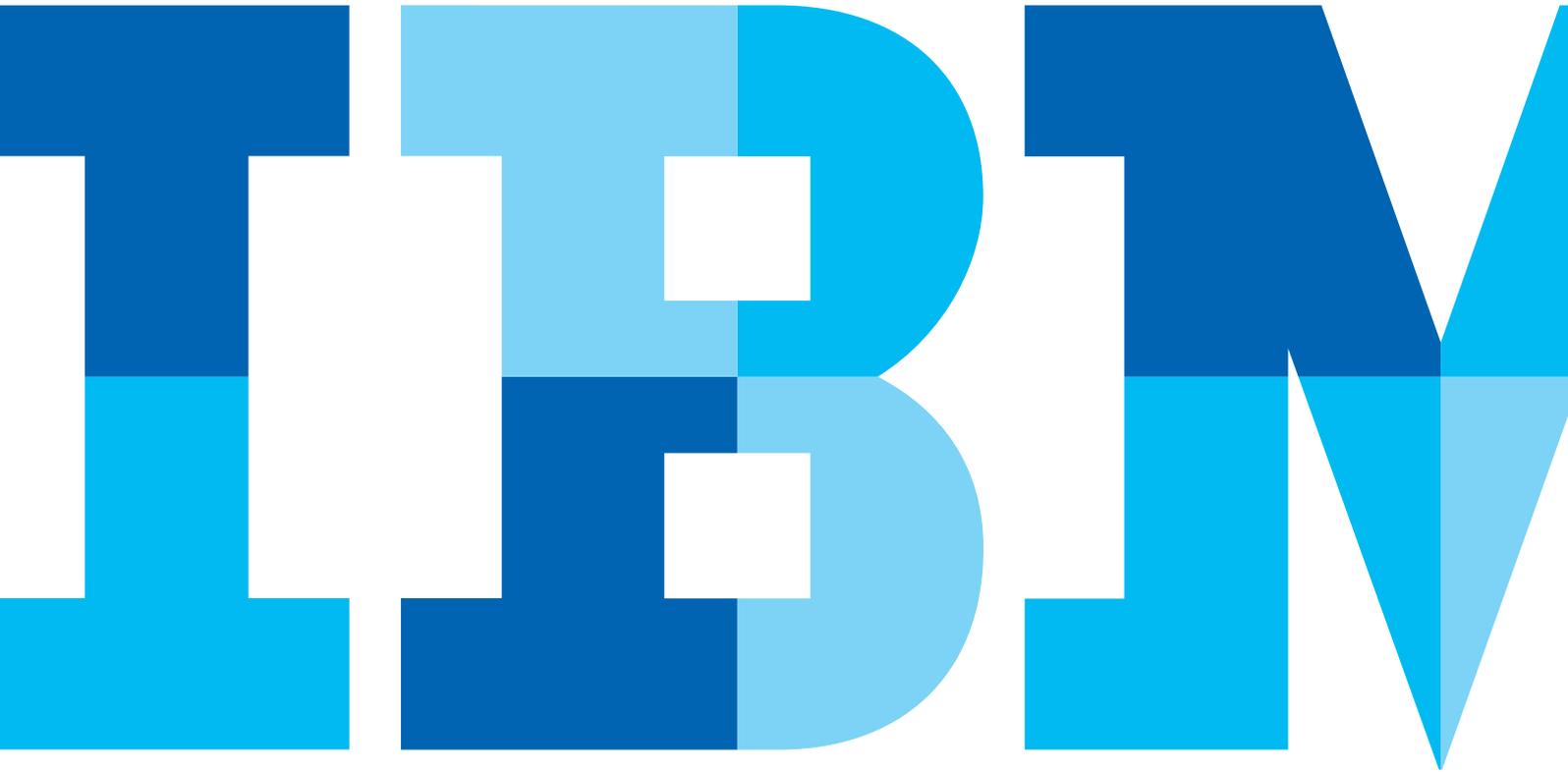


Extending Planning & Forecasting with Analytics

Steve Player, Beyond Budgeting Round Table



Introduction

“The purpose of accounting systems should be to support management decision-making. You need to build systems that help you see which actions will lead you to successful outcomes.”¹

—Dr. Charles Horngren, Stanford

As renowned cost accounting professor Chuck Horngren notes, corporate finance executives can deliver the greatest value by establishing the sturdiest foundation of timely, reliable and relevant facts. This analytical platform ultimately enables their organization’s most important measures – including revenue growth, return on invested capital and profit growth as measured by EBITDA – to outpace the financial outcomes of the competition. The goal is to support speed and effectiveness in decision-making.

To help their organizations sustain and increase profits in an increasingly global and uncertain marketplace, leading Chief Financial Officers (CFOs) and other corporate finance executives and business managers are transforming their role from one that supplies financial information to one that provides strong business insight. Leading finance functions produce these insights through advanced planning capabilities, such as rolling forecasts, Monte Carlo simulations, and scenario planning (techniques that were described in the previous white papers, “Business Forecasting: Six Design Principles for Healthier Forecasts” and “Five Advanced Practices for More Robust Forecasting”).

All advanced forecasting and planning capabilities have the same objective: to prepare organizations to more effectively

mitigate future threats and exploit future opportunities, which in turn determine winners in the marketplace. Advanced forecasting and planning capabilities also rely on the same enabling foundation: analytics. This paper examines the composition of that analytical foundation, how it can be enhanced to provide a better springboard for disseminating business insights, and how automation helps enable and strengthen this foundation. Specifically, this paper will explore:

- Why and how the transformation of the corporate finance function relates to the need for advanced planning capabilities based on a foundation of finance, operational and external analytics.
- The four types of insight – operational, supply chain, customer and external marketplace – that organizations need to build an effective analytical foundation; and
- How organizations can use automation to leverage analytics from the data currently housed within their business systems to achieve better decision making.

Finance Becomes Future Ready

The winds of change have been bearing down on corporate finance for some time now. The drive for transformation is evident in seemingly every recent study, association research, magazine and book that examines corporate finance issues and trends.

In IBM’s *2010 Global CFO Study*, the CFOs of top-performing companies are described as “value integrators” whose finance functions achieve a high level of efficiency and “an expanded capacity to provide meaningful business insights that meet the new challenges – and opportunities – being raised across the enterprise.” These CFOs’ enterprises, according to the study, outperform competitors “in large part because they excel at integrating information company wide, analyzing it and converting it to a competitive asset – new intelligence.”²

¹ Speaking at the ABM SMART Conference on Cost and Profitability, Sept. 27, 2010.

² *The New Value Integrator: Insights from the Global Chief Financial Officer Study*, IBM Corporation, 2010.

New research from CMA-Canada, a leading association of strategic management accounting professionals, indicates that corporate finance and accounting professionals play a pivotal role in ensuring that their companies are sustainable – not only by reporting value (as they have traditionally done) but also by creating, enabling and preserving value.³

And MIT Senior Lecturer Jonathan Byrnes argues that leading CFOs have a powerful new role: “Chief Profitability Officer.” CFOs who fulfill this role, Byrnes explains, view profitability as “a central part of their existing jobs” and “must go beyond broad, departmental performance measures to build grassroots profitability management processes into his or her company’s core management activities.”⁴

“...finance has been handed an urgent edict to stop spending too much time reporting what’s already occurred and to start informing management on what’s yet to happen...”

—Jack Sweeney, Editor in Chief, *Business Finance*

Analytics represent the lynchpin of the powerful new role that leading corporate finance organizations (as well as corporate finance executives and managers) are assuming. These insights should help business executives and other decision-makers understand what is happening, why it is happening, what may happen and, above all, what they should do about it. “[I]n an economy that gives no hint as to what’s around the next curve,” writes *Business Finance* Editor in Chief Jack Sweeney, “finance has been handed an urgent edict to stop spending too much time reporting what’s already occurred and to start informing management on what’s yet to happen and what options are there

to shape better outcomes more effectively.”⁵ This mandate echoes Horngren’s call for better approaches to decision-making, and it underscores the importance of the finance function’s role in alerting management about “possible futures” and then supporting efforts to respond to those scenarios.

While it is impossible to predict the future, it is possible, and highly advantageous, to be prepared for future events. Enterprises that move their finance organizations from the back of the boat (where they stare at the wake and report on what has already happened) to the bridge of the vessel, alongside the CEO, are best positioned to achieve this state of preparation. In this analogy, the ship’s controls consist of the portfolio of internal and external analytics the CFO manages, monitors and delivers to key decision-makers throughout the organizational vessel. The decision-making processes embedded in an organization’s planning and forecasting capabilities can be greatly enhanced and extended by building them on a broad foundation of analytics.

Analyzing Cause and Effect

The essential value of a business analytic – regardless of whether it consists of a financial, operational or external insight – resides in the cause-and-effect understanding it imparts to decision-makers. The most valuable analytics identify the key factors that drive a process. For this reason, the identification of the right analytics is crucial. But picking the right analytics often requires looking at how the different moving parts work in combination.

Earlier performance management approaches focused on key performance indicators (KPIs). While this approach heightened awareness of the importance of tracking internal performance, it often resulted in departments tracking specific, even isolated, measures that did not provide insight into larger performance objectives. By seeking only to optimize their own group’s performance, departmental managers remained in the dark when

³ CMA Canada Research Foundation, http://www.cma-canada.org/index.cfm/ci_id/15475/la_id/1.htm.

⁴ Byrnes, Jonathan L.S. “*Islands of Profit in a Sea of Red Ink: Why 40 Percent of Your Business is Unprofitable and How to Fix It*,” Portfolio Penguin, 2010.

⁵ Sweeney, Jack. “*Back to the Future*,” *Business Finance*, Fall 2010.

corporate performance results began to lag behind expectations. An appropriate analogy to this approach would be a symphony composed of highly talented individual artists who fail to make pleasing music together.

When developing a strong foundation of analytics, it is important for finance executives and managers to consider two actions:

- 1. Examine and select financial and operational analytics, or indicators, broadly and deeply.** Specifically, this means extending the use of analytics beyond a functional perspective to better apply to business processes (e.g., the order-to-cash cycle) that cut across numerous functional units, customer channels and/or supply channels. Look between the white space on the organization chart to make sure that the analytics look at the whole process as well as the individual departments.
- 2. Report financial and operational metrics in a business unit context.** As business unit leaders manage to financial and operational objectives, they also have a strong desire to understand the drivers behind such metrics – which helps them understand how they can change course to achieve better outcomes. Doing so better enables finance and business leaders to identify operational drivers for actionable change (e.g., which specific product can be discounted further to increase sales).

For a long time, finance functions have monitored and reported measures in different areas of the business, but this approach is no longer sufficient in high-performing companies. Instead, leading finance functions not only monitor key indicators, they also develop insights by analyzing relationships among different indicators. This is the conversion from KPIs into broader analytics.

Organizations should maintain a portfolio of measures that balance considerations of both upstream and downstream effects within the value (supply and customer) chain.

For example, a manufacturer evaluates a supplier based on several different factors. Cost is one important indicator of value, but it is far from the only indicator. What if a low-cost supplier delivers the wrong products? What if the same low-cost supplier delivers the right products but does so three days late? These factors can lead to production delays within the manufacturing company that may cost far more than the value the manufacturer gains in savings related to the lower cost of goods.

Four Types of Analytical Insights

It is helpful to keep in mind that there are four different “types” of analytical insights that comprise an effective foundation for advanced planning practices. These types relate to Michael Porter’s “five forces” model of competition.⁶ In addition to Operational Insights, the four types include Supply Chain Insights (which correspond to Porter’s Power of Suppliers and Threat of New Entrants forces), Customer Insights (Porter’s Power of Customers and Threat of Substitutes) and External Insights, which track the overall competitive environment, including the overall economy, government regulations, currency fluctuations, and other market- or industry-specific shifts.

Type 1: Operational Insights

The bulk of internal, operational metrics suffer from a form of myopia. These measures primarily focus on efficiency and rarely extend beyond individual departments and business units.

The most valuable business insights stem not just from looking at single business units in isolation but from looking across the organization to identify how different business units operate together in an optimized manner in the service of larger business processes, such as providing customer service or managing the supply chain. For example, it is not only important to minimize customer order-processing and shipment times; it is also important to prioritize logistical capacities to better serve and improve the experience of the most profitable customer segments.

⁶ Porter, Michael. “The Five Competitive Forces That Shape Strategy,” Harvard Business Review, January 2008 (update of 1979 article).

Internal, operational analytics should focus on these cross-functional processes, or what management experts Geary Rummler and Alan Brache describe as the “white space on the organization chart.”⁷

The “white space” is where the greatest opportunities for improvement frequently reside. When a direct-sales home improvement company implemented advanced forecasting techniques, for example, it discovered that its traditional focus on the age of receivables and inventory turned out to be less important than the “age” of leads in the company’s lead pipeline (i.e., its “inventory” of potential customers).⁸ The traditional analytics (age of receivables and inventory turns) reflect business-unit analytics; the more effective, or “predictive,” analytic (an inventory of potential customers) requires a cross-functional view that stretches from sales and marketing back to finance.

Identifying the most effective internal analytics requires finance managers to essentially don their pith helmets and venture out to operations to explore what indicators and measures their operational colleagues use in their own settings. By tracing the process flow from those indicators back into financial measures, finance managers can better ensure that the organization is looking at the same “single version of the truth” while striving to optimize internal processes that ultimately deliver better bottom-line results.

Type 2: Supply Chain Insights

As companies increase their reliance on supply chain partners, they need to gain a more holistic understanding of the value that these suppliers deliver and how supplier performance influences the value of the products and services companies ultimately deliver to their customers.

Just as it behooves finance executives to embrace a cross-functional approach to internal analytics, it makes sense for them to take a similar analytical approach across their portfolio

of suppliers. In many organizations, 50 to 70 percent of the value provided to customers comes from goods supplied by supply chain partners. This reliance represents a major supply chain management (i.e., decision-making) opportunity. Although purchase cost marks an important measure, it represents only one of many and should be evaluated in combination with other metrics and indicators.

Those key supplier performance indicators can be identified by starting with several questions, including:

- How quickly do suppliers fill orders?
- What is the quality of the products (or services) that they deliver?
- Do suppliers send the products (or services) that we ordered?
- How do we monitor the financial health of our suppliers?
- Are there opportunities for cost-savings and/or process improvements among our suppliers?

For most companies, the process of “looking upstream” to evaluate suppliers’ capabilities in a more holistic fashion represents a major value opportunity. These value opportunities take many forms, including increasing the efficiency of the supply chain; increasing the quality of the products that suppliers provide; gaining better visibility into supplier organizations so that potential supply chain disruptions can be spotted earlier and addressed before they become major problems.

Distribution marks a supply chain area that is frequently ripe for improvement via better business insights. For example, if a manufacturing supplier offers “free” distribution, the buyer should have established transparency, through analytics, to understand where the supplier may be recovering the cost of distribution. A growing number of companies use supply chain analytics blended with financial insights to alert them to ways they can make life easier for their suppliers and for themselves while improving the bottom line.

⁷ Brace, Alan and Geary Rummler. *Improving Performance: How to Manage the White Space in the Organization Chart* (Jossey Bass, 1995).

⁸ “Five Advanced Practices for More Robust Forecasting,” IBM Corporation, The Player Group, 2010.

Type 3: Customer Insights

The same type of portfolio analysis that finance functions conduct on a portfolio of suppliers can be applied to the other side of the value chain, to customers. Traditionally, customer analytics centered on revenue, profit margin and not much else.

Today, leading finance functions evaluate and track more indicators while slicing and dicing these indicators to give the organization better visibility into the true profit picture. This approach entails measures such as customer profitability, profitability by distribution channel, profitability by sales channel, profitability by product group – and even by individual stock keeping unit (SKU). These types of insights can help organizations identify new opportunities to bundle products, cross-promote certain products with partner companies, improve return on marketing investment (ROMI) and, ultimately, to better understand the lifetime value of a customer.

This strategy marks a departure from a customer analytics approach that centered on individual measures, such as revenue or cost-to-serve, that were largely monitored and managed in isolation. This previous approach created costly blind spots. For example, a customer call center manager might manage efficiency by monitoring the length of calls that service representatives conducted: quicker calls would be viewed as being more efficient while other important measures, including customer satisfaction, and cross-selling or up-selling were ignored.

Another common example of a customer analytic blind spot involves customers that generate high revenues. By only evaluating a customer based on the size of revenue it generates, companies ignore other measures – whether the customer pays on time (or pays at all) or the costs of other customer demands such as special packaging or delivery only at certain times – that present a more realistic view of the customer's ultimate effect on profitability.

In the past decade, the hospitality, airline and retail industries have achieved impressive results using customer analytics embedded in loyalty programs, customer relationship management (CRM) initiatives and, more recently, customer experience management endeavors. The success of these programs hinges on the quality of the customer analytics foundation beneath them.

“I have found that 30 to 40 percent of each company’s business – by any measure (accounts, products, transactions) – is unprofitable.”

—Jonathan Byrnes

The highest-quality customer analytics present a holistic picture of customer value to the entire organization. A high-revenue customer may turn out to be painfully unprofitable due to how much internal work the customer creates through special treatment and extra handling. For example, one of the highest revenue clients of a consulting firm may create the most pain among the firm's staff due the client's highly inefficient accounts payable (A/P) process.

The holistic picture that better customer analytics present is sometimes jarring. “In my work with companies in a wide range of industries,” writes Byrnes, “I have found that 30 to 40 percent of each company’s business – by any measure (accounts, products, transactions) – is unprofitable.”⁹

⁹ Byrnes, Jonathan L.S. *Islands of Profit in a Sea of Red Ink: Why 40 Percent of Your Business is Unprofitable and How to Fix It*, Portfolio Penguin, 2010.

Type 4: External Insights

In the wake of the global financial crisis, a number of scenario planning success stories have emerged. The moral of these stories is consistent. By conducting a formal planning process centered on what *might* occur, companies were better prepared when a worst-case scenario (such as the credit freeze followed by the worst economic downturn since the Great Depression) became a reality.

External indicators represent one of the essential foundational ingredients of effective scenario planning. These *leading* indicators alert finance executives when a possible external scenario (e.g., a shift in the economic cycle, a disruption of the supply chain, or a reduction in customer demand in a specific market) appears more likely to materialize.

For example, a utility company with power generation business may institute a regulatory indicator that monitors the likelihood of new environmental regulations that could drive up the cost of producing power. Or, a luxury-goods retailer may add alternative leading economic indicators (e.g., the sales of quarter horses, the number of construction cranes deployed in a specific country or region) to its dashboard of external analytics.

Raising Your Analytics Quotient (AQ)

Strengthening strategic decision-making by developing an analytical foundation that enables advanced planning and forecasting practices requires intelligence. Fortunately, enterprises already possess raw intelligence – in the form of the ever-increasing supply of data coursing through their various information systems.

The trick, of course, is harvesting the data, converting it into information and then distributing it in a timely fashion to relevant decision-makers throughout the organization. The first step in this process involves the identification of an information strategy for the analytical foundation. The formation of the strategy requires answers to several essential questions:

- How do we make decisions?
- What are our key management processes?
- What information do we need to make management decisions and monitor these processes?
- Which analytics can help us spot and address threats and opportunities related to management processes?

Once an organization identifies the information it needs, it then sets out to convert relevant data into information. This data may be housed in transactional (i.e., enterprise resource planning) systems, CRM systems, financial systems, product lists, manufacturing applications and within suppliers' information systems.

Financial analytics applications can extract this data, convert it into information and distribute the information to managers to enable effective decision making. A 2009 CFO Research Services study of 171 senior finance executives in the U.S. found that the most highly automated companies rate their profitability analysis capabilities better than less automated companies. Although the study focused on only one analytical area (profitability), the findings suggest that the following information-technology qualities would also enhance other types of analytics:

- Better access to reliable data that represents a single version of the truth;
- Better use of data (*analysis* instead of collection); and
- Greater collaboration among users of the data.¹⁰

At a high level, a financial analytics platform should deliver these three capabilities. At an even higher level, the automation and processes companies use to identify and leverage their analytical foundation should ensure that finance executives can show the rest of the organization the facts behind the financial figures.

¹⁰ "Unlocking Profitability Potential in Turbulent Times and Beyond." Research Study, CFO Publishing Corp. 2009



About the Beyond Budgeting Round Table

The Beyond Budgeting Round Table (BBRT) is an international shared learning network of member organizations with a common interest in transforming their performance management models to enable sustained, superior performance.

BBRT helps organizations learn from worldwide best practice studies and encourages them to share information, past successes and implementation experiences to move beyond command and control.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers trust to improve business performance. A comprehensive portfolio of business intelligence, advanced analytics, financial performance and strategy management and analytic applications gives you clear, immediate and actionable insights into current performance and the ability to predict future outcomes.

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Ottawa ON K1G 4K9
Canada

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