IBM®

Product Profitability Analytics Performance Blueprint

Cognos® software

Gain detailed insight into product profitability to optimize business performance and decision making

Overview

Over the last several years, finance organizations have invested substantially in sophisticated costing and management account processes. The net effect of these investments has been, at best, a backward look at product level profitability. Business users from sales and marketing, product development and even procurement are, therefore, struggling to use such product profitability financial intelligence to gauge their performance and to undertake specific actions to enhance profits.

To help organizations with these challenges, IBM has developed the *IBM Cognos® Product Profitability Analytics Performance Blueprint.* Blueprints are pre-defined data, process, rules and policy models that help organizations accelerate their software deployments and drive faster return on investment. The *Product Profitability Analytics Blueprint* helps uncover product level profitability in the context of operational business decisions, moving profitability management from the CFO's office to the front lines where decisions affecting profitability are really made. The CFO's office now becomes the facilitator of such decisions rather than being the gatekeeper.

What is profitability analysis?

During these challenging economic times, finance organizations are under increasing pressure to manage risk, drive cash flow, contain and reduce costs and improve profits. Profitability is now the Holy Grail that drives corporate performance and related decision-making.

Profitability analysis is a relatively new cross-enterprise discipline that unlocks profit potential to drive business performance. Profitability analysis helps departments (for example, sales, marketing, operations, engineering and so on) answer simple "profit focused" questions in the context of their daily strategic and tactical business decisions—questions such as, "Who are my profitable customers?" "What are my profitable products?" "Which are my profitable sales channels?"

The Profitability analysis process

Profitability analysis is evolving from an accounting management-driven reporting exercise (primarily focused on costing models) to a forward-looking profitability modeling paradigm that helps a business gain the insight needed to optimize performance. The objective is to deploy limited resources in pursuit of the most profitable opportunities.

This paradigm shift in profitability modeling has transformed associated processes in the following ways:

- Profit models are now being built to support the business decisions being made. In the past, models resided in spreadsheets that proliferated across an enterprise.

- Profit models are now being supported by both financial and operational contexts. Typically, profitability models have had a finance and accounting bias.

- The impetus is to go after just the right information to support the financial and operational contexts. Previously, information reconciliation at all levels was paramount in supporting the accounting context.
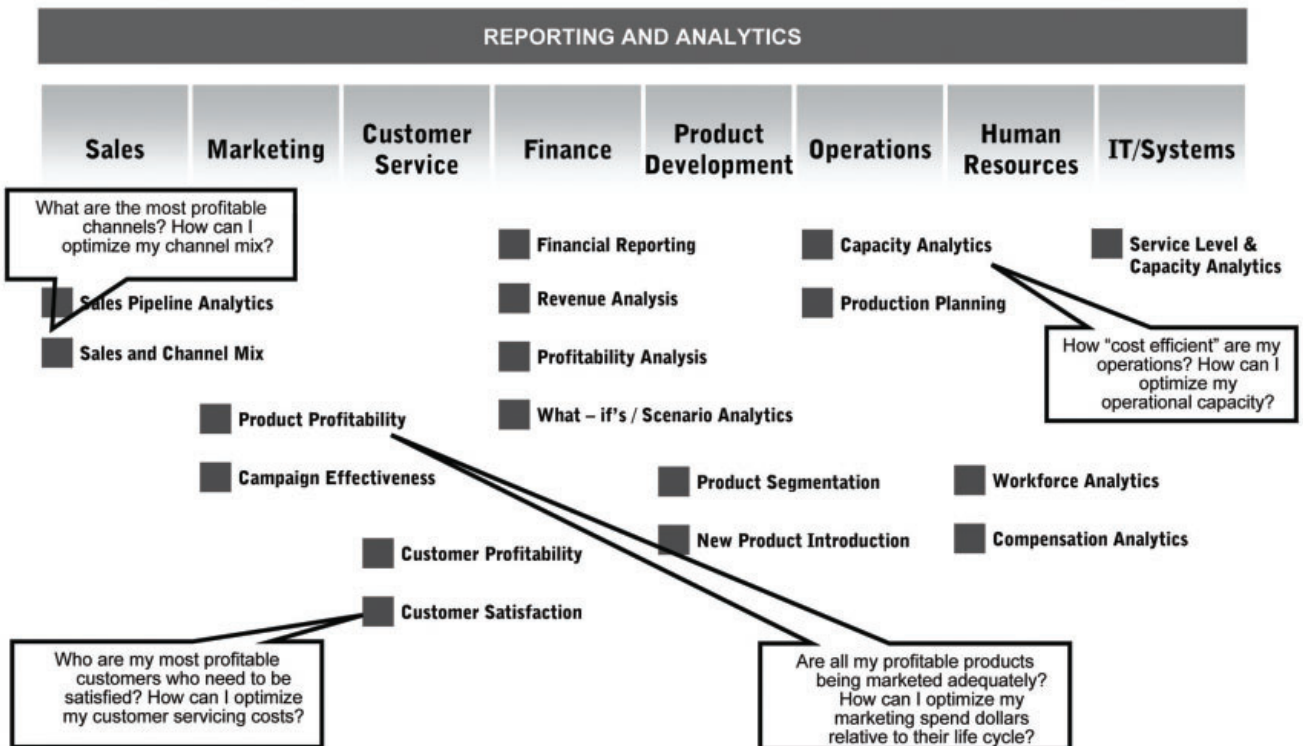

Figure 1. Profitability questions

Profitability analysis: Industry perspective

In industries where there is a relatively large proliferation of products, such as software or financial services, understanding and acting on product level profitability information is becoming a competitive imperative. Line of business professionals and managers are working with their finance counterparts to understand product profitability at a detailed level before simulating and assessing the implications of possible product level actions. For example, a sales planning manager in a financial services company might be interested in understanding the profitability implications of delivering an investment product, such as an Exchange Traded Fund, online instead of in a retail store before making any changes.

This type of analysis requires a variety of capabilities including:

- Product-wise revenue recognition

- Product-wise cost allocations (direct, indirect allocations, Activity Based Costing)

- Modeling a forward-looking driver-based profitability view for all products at granular levels that integrates into the financial planning

- "What-if" analysis of specific product actions

Product profitability can provide those capabilities not only to the financial services company, but also to an entirely different type of industry, such as life sciences. In short, profitability analysis can be customized specifically to meet the business needs of all industries.

Introducing the Product Profitability Analytics Performance Blueprint

In a recent survey of over 170 finance executives across the U.S., undertaken by CFO Research Services (a research unit of *CFO* magazine), product or service profitability ranked as a high priority for both corporate and business units. It is clear, then, that there is a critical need for detailed metrics and dimensional complexity to approach the product profitability problem. The *IBM Cognos Product Profitability Analytics Blueprint* was developed to help provide that input.

The *Product Profitability Analytics Blueprint* helps an organization's finance–CFOs and other finance executives–and business users–sales/channels and operations/procurement–collaborate as partners in the process of determining product profitability and using that information to benefit their organizations. Companies and organization in all industries, including those in the service sector, can use this Blueprint.

Key features and business value

The *Product Profitability Analytics Blueprint* analyzes profitability metrics from complex dimensionalities, such as sales channels and time horizons. The *Blueprint* presents these metrics at all levels of detail in a highly contextual and intuitive environment to aid understanding. The business insights gained from the metrics help simulate and drive the right actions for increasing profitability. The key features and business value for the *Blueprint* are highlighted in this section.

Visualize profitability measures at various levels of granularity

With the *Blueprint*, you can view profitability metrics from the overall company level to individual stock keeping unit (SKU) and anywhere in between. Further, such visualization can be seen in the context of multiple dimensions of profitability such as time periods, sales channels and more.

Such detailed and multidimensional views of profitability presuppose that there are very large data sets being brought into play in the profitability model. Such analysis has not been possible before now because most companies use spreadsheets for the purpose of analyzing profitability, and they do not provide the scalability needed for detailed analysis. Spreadsheets do provide self-service capabilities for finance and business users without the need for sophisticated IT skills, but program limitations, such as the limitation of 64K rows in Microsoft® Excel®, make managing large data sets difficult.

To flip dimensions instantaneously and visualize profitability from massive amounts of data, you need a totally different technology paradigm—one that scales to accommodate all the necessary data while retaining the features that make spreadsheets easy to use. This *Blueprint* supports self- service and scalability with IBM Cognos technology.

The *Blueprint* has a built-in dashboard that presents product profitability information to CFOs and other users, including product profitability analysts in the FP&A team, in a form that they can easily understand and with information they can easily recognize (Figure 2).
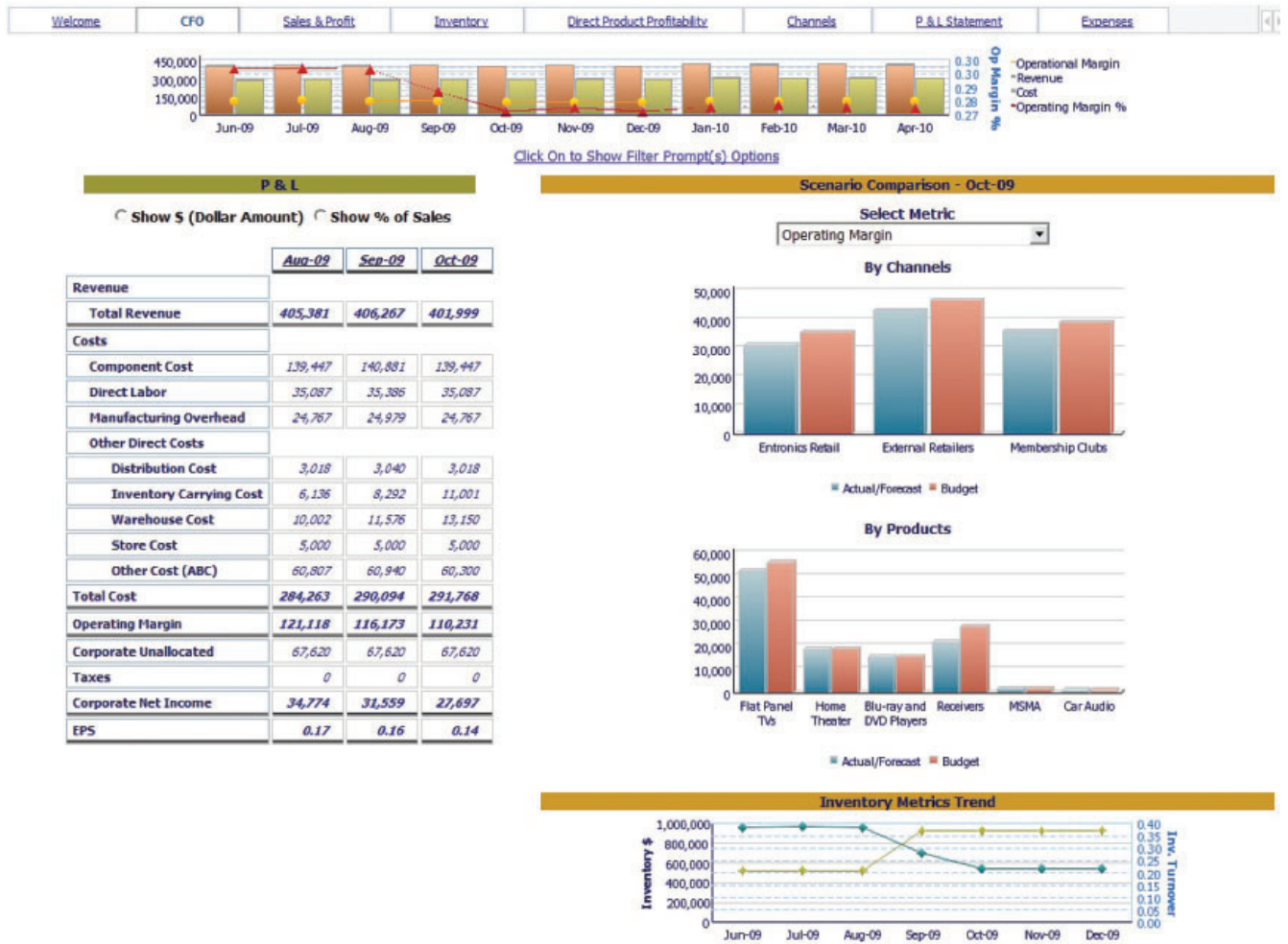

Figure 2. Profitability Analysis Dashboard with scenario comparison

As mentioned earlier, they can visualize product profitability for multiple profitability dimensions, such as company, sales channels and product families and at individual (such as SKU) and aggregated (such as product class) levels. In addition, they can analyze profitability trend patterns (Figure 3) and compare plans, budgets, actuals and forecasts and drill through product profitability information to understand the impact of causal factors.

Users can compare product level profitability between specific time periods (for example, two different weeks from two different years), sales channels (for example, how product level profitability compares for in-store retail versus online for a particular product in the holiday season for two different years) or both.
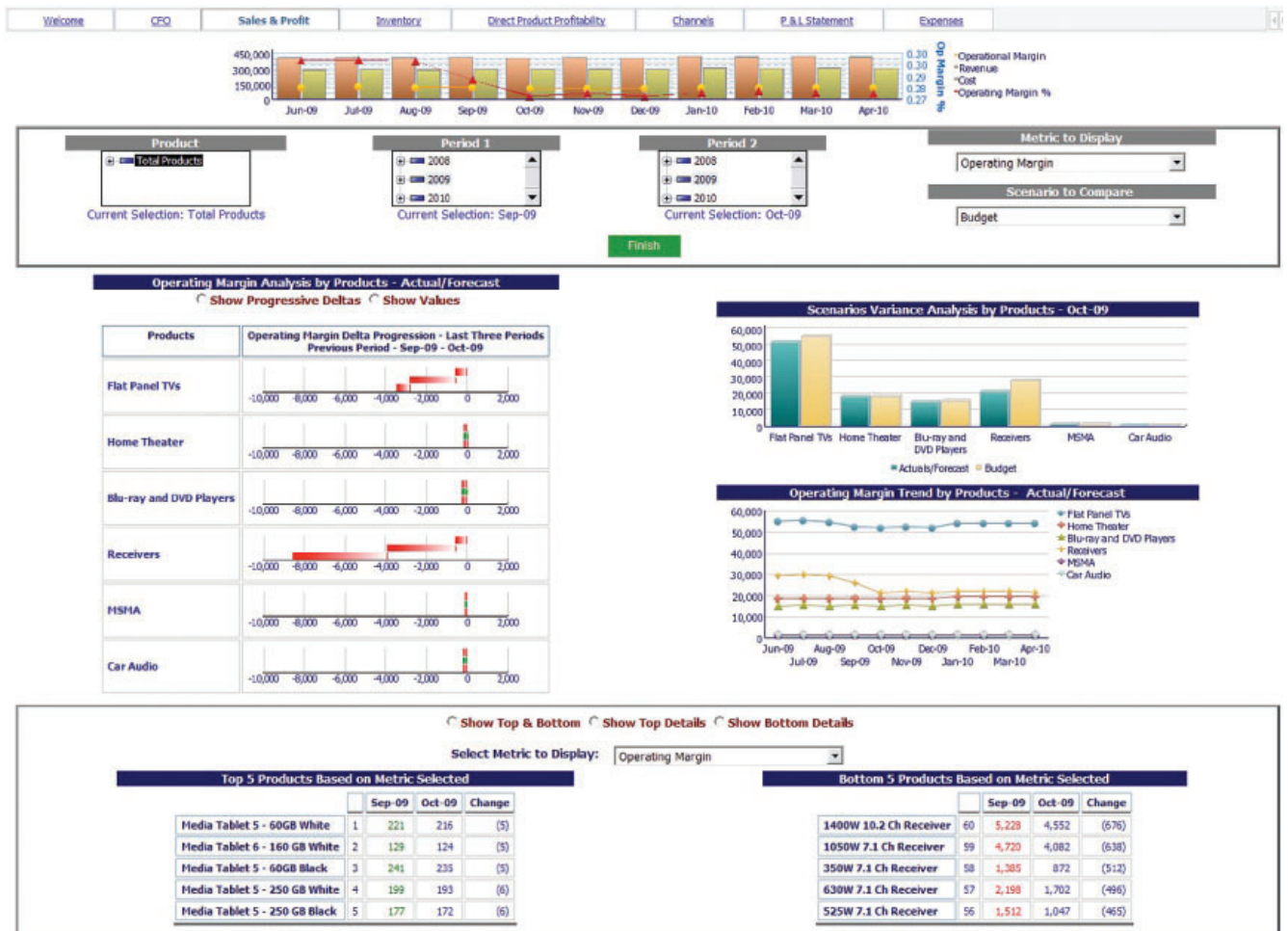

Figure 3. Drilldown to view of operating margin delta progression

Analyze and take proactive actions to optimize inventories in the context of
product profitability

This *Blueprint* helps organizations use inventory analysis (Figure 4) to answer
questions such as "how does product profitability relate to inventory management?"
Inventory analysis provides profitability information to business and finance
users who drive the operations and procurement functions so that they can
visualize the impact of any significant variations in inventory trends. This highly
intuitive profitability analysis-based insight helps non-financial users and product
profitability analysts easily dissect and identify root causes of profitability problems
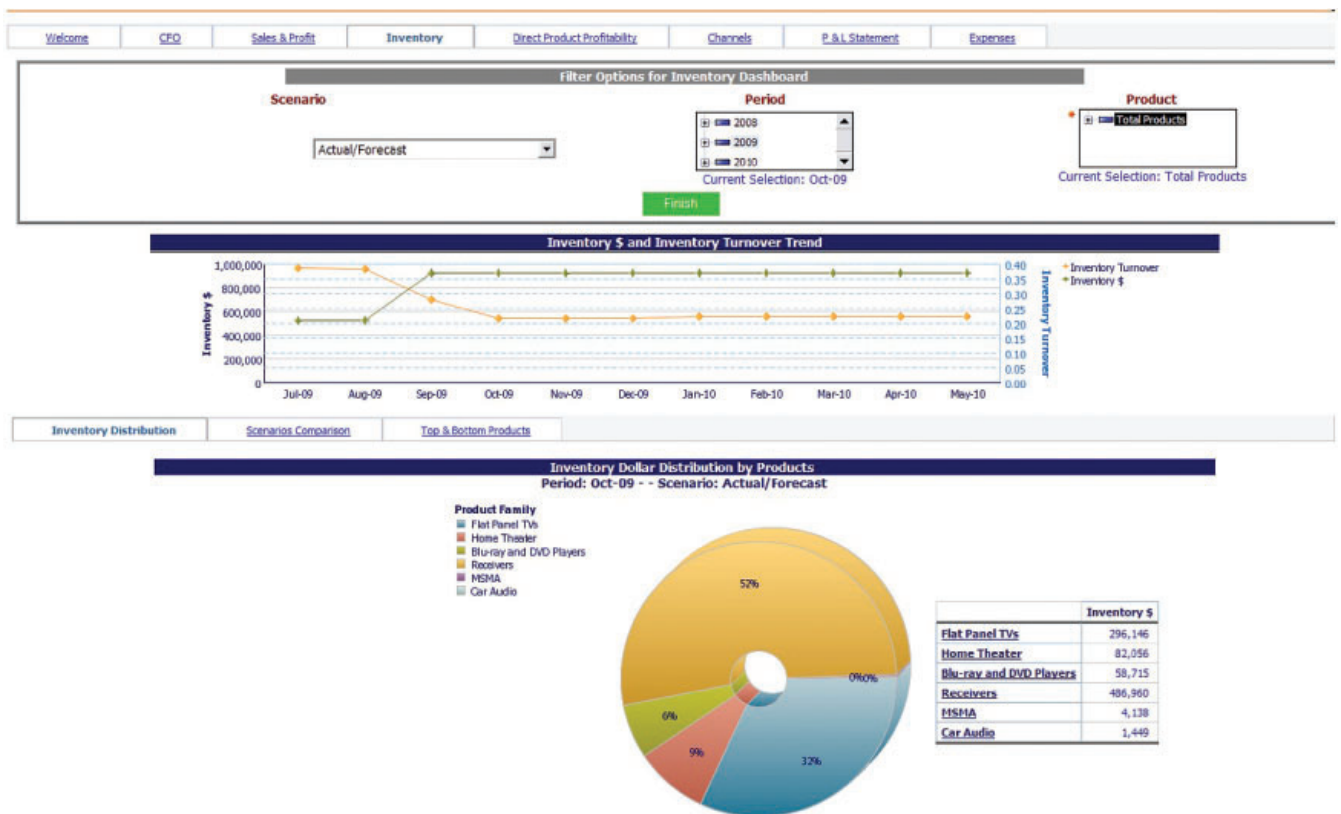related to inventory so they can take the necessary steps to correct them.

Figure 4. Inventory analysis with the Blueprint

For example, in working capital-intensive industries (such as retail), users can measure how well product inventory is being managed relative to its profitability (Figure 5) by visually comparing product level profitability with inventory holding patterns for that product (measured with the "inventory turn" ratio).
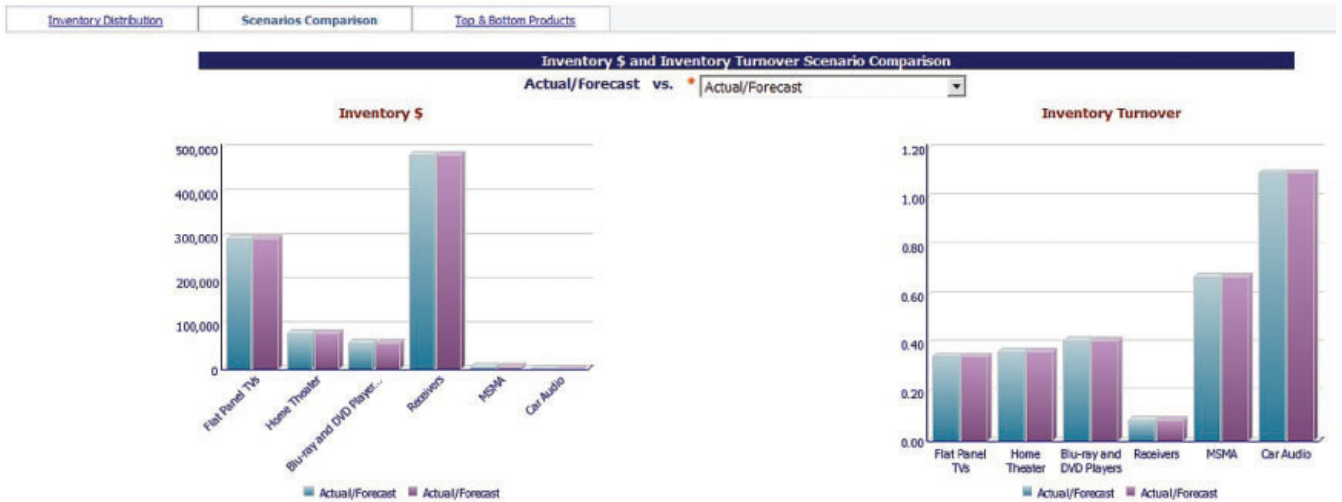

Figure 5. Inventory comparisons with the Blueprint

The graphical interface of the *Blueprint* clearly presents "outliers," which are the best and worst performing product inventory relative to their profitability (Figure 6). Users can simulate and visualize specific actions they intend taking. Examples include how to eliminate excess inventory for a product that is losing money with actions such as store promotions and increasing the inventory levels for a product that is perennially out of stock.
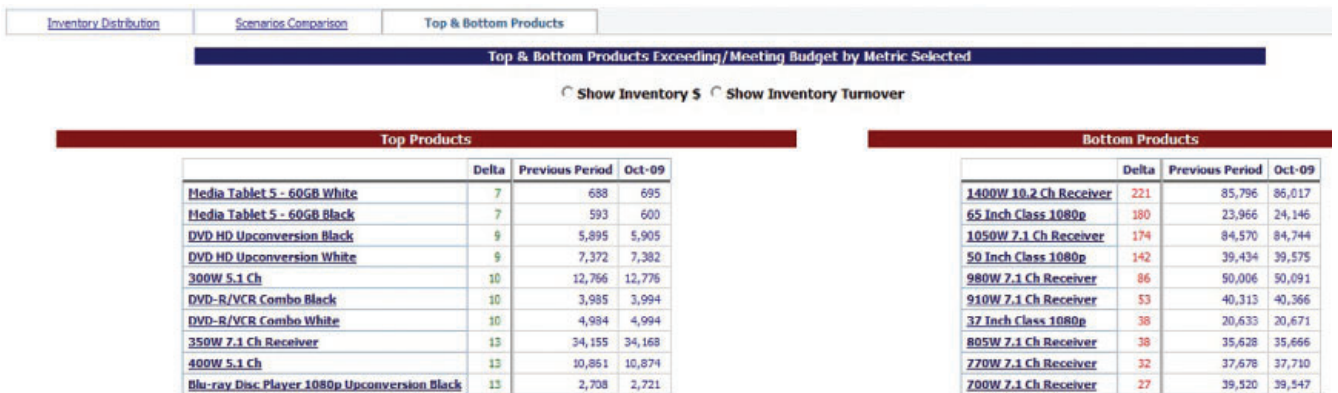

Figure 6. Inventory outliers

Define profitability metrics and analyze them in accounting and operational contexts

Specific, detailed profitability metrics (such as profit per branch in the banking industry or profit per subscriber in telecom industry) are an integral part of profitability analytics especially when profitability is related in operational business terms. The value in making such complex computations is that profitability can be transformed from a financial construct to a business construct that can be well understood and acted on with a profitability metric such as Direct Product Profitability (DPP). With some simple customization, this *Blueprint* can be easily extended to suit such similar complex computation needs (Figure 7).

The retail industry uses DPP to optimize profitability based on merchandizing mix and is defined as profitability generated by a unit product relative to the shelf space it occupies. When profitability is presented in these terms, non-finance savvy business users can then take action to achieve overall profit maximization.

Usage of such metrics helps business and finance users analyze product profitability relative to the resource they are trying to optimize (in the case of DPP, it is the shelf space in a retail store).
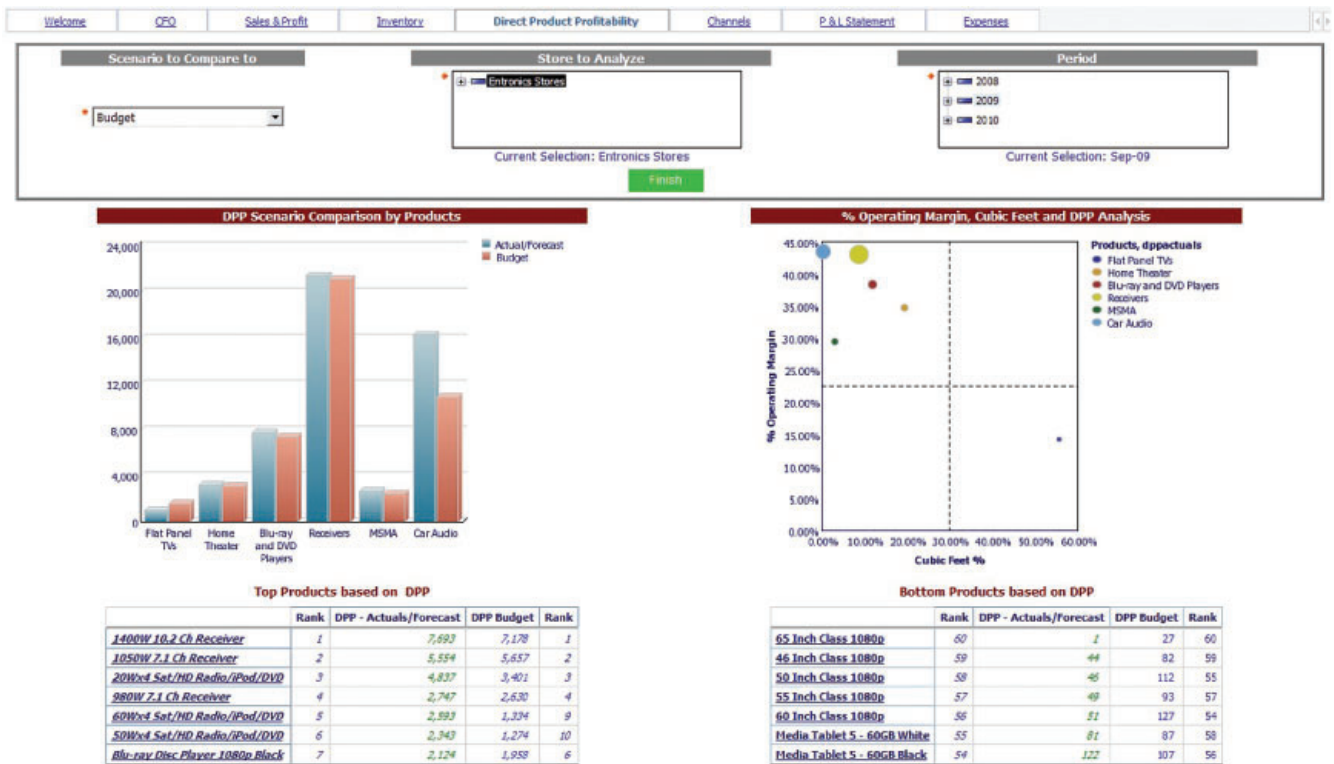

Figure 7. Analysis with DPP

Analyze and optimize product profitability over channels

This *Blueprint* provides views of product level profitability for the various sales channels of a company (including aggregated views at different levels in the channel hierarchy) and in the context of multiple dimensions of profitability, such as time periods, product hierarchies and so on (Figure 8).

Channel product profitability analysis provides profitability information to the business and finance users who drive the sales operations and channel functions so they can visualize the impact of any significant variations in channel profitability trends. This highly intuitive profitability analysis-based insight helps non-financial users and channel profitability analysts easily dissect and identify root causes of channel profitability problems so they can take the proactive steps necessary to implement changes.

For example, airline sales operations or channel users might want to compare route-seat-class profitability between online and travel agents to prevent the cannibalizing of revenue or profitability.

Figure 8. Channel product profitability analysis

Simulate scenarios and visualize effect of proposed actions on product level profitability
No profitability analysis is complete without "what-if" analysis, which simulates and visualizes the effect of business actions on profitability, and product profitability is no exception. Visualizing income statements with revenue and cost structures helps companies understand the effect of simulating business actions (at a line item level) on product profitability. For example, raw material and component sourcing managers would like to visualize the impact of a different vendor-pricing mix on ultimate product profitability. And, sales managers would like to optimize delivery of a product to different sales channels so that product level profitability could be maximized.

"What-if" simulation techniques are very common for finance and business users. The key to such techniques is being able to change the values of profitability drivers instantly without overwriting actual data or creating duplicate data sets, which can ultimately lead to uncontrolled proliferation of such scenario based models.

Such sophisticated, computing-intensive simulation techniques require scalability of the underlying technology, especially when this is done for thousands of product SKUs, over several weeks and months and for different channels. Further, carving out data sets in a simulation environment requires the maintenance of "data integrity" in actual production environments.

This *Blueprint* contains a product profitability simulation "sandbox" that helps finance and business users quickly carve out relevant data sets for simulation and analysis without the help of IT.

Commit business actions from forward looking product profitability into the financial plan
The final stage of product profitability analysis is to seek approval of proposed business actions and commit such business actions seamlessly by linking them with the financial plans of the company. With this commitment, finance and business users can alter the necessary resources and plans in order to pursue the proactively corrected course. This *Blueprint* supports tying the proposed business actions that affect resource allocation into the financial plan that will ultimately change the operations of the organization.

Conclusion

Profitability analysis is a multidimensional, metrics-driven discipline that looks at profitability at all product levels–from high level aggregations to individual SKUs. Business and finance users are stepping up to the challenges and becoming strategic business partners in the deployment of profitability analysis in their companies. This requires a fundamental shift–in terms of both vision and execution.

IBM has worked with leading-edge innovators and business partners to develop the *Product Profitability Analytics Performance Blueprint*, to address the core product profitability analysis needs of organizations.

Parties involved in the development of this blueprint

This *Blueprint* was developed jointly by the IBM Cognos Innovation Center for Performance Management, and Breakaway-Technologies Inc. (an IBM Business Partner).

Breakaway-Technologies Inc.

Breakaway Technologies, Inc. (BTI) is one of the pioneers in the Profitability Analysis discipline, having worked with leading companies worldwide (such as Alfred Angelo) to deliver analytical solutions. BTI delivers business intelligence and business performance management solutions that dramatically improve enterprise-wide results. BTI's advantage is rooted in a unique blend of technological, operations and business expertise that helps organizations improve operations, reduce costs, streamline work processes and deploy tools that deliver online, real-time data access and analysis. BTI has worked with a number of executives in finance, manufacturing, sales, marketing and other functions, showing them how to unleash their wisdom, use data better to manage their performance and become better business partners.

About IBM Cognos BI and Performance Management

IBM Cognos business intelligence (BI) and performance management solutions deliver world-leading enterprise planning, consolidation and BI software, support and services to help companies plan, understand and manage financial and operational performance. IBM Cognos solutions bring together technology, analytical applications, best practices, and a broad network of partners to give customers an open, adaptive and complete performance solution. Over 23,000 customers in more than 135 countries around the world choose IBM Cognos solutions.

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