



# WOW YOUR C-SUITE

with Eight Key Strategies for Your S&OP Process



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This e-book outlines eight key strategies that will help align S&OP processes with the goals of C-level executives across an enterprise. **By restructuring S&OP to focus on supporting key metrics on which executives are measured, true integrated business planning is achieved.**

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# INTRODUCTION

## The Need for a More Advanced S&OP Strategy

There are two big reasons Sales and Operations Planning (S&OP) solutions are no longer cutting it for organizations:

1. Lack of Focus on Global Planning
2. Lack of Financial Integration Into S&Op Tools

As it stands now, S&OP solutions produce locally-optimized plans that are created through heuristics rather than global consideration of enterprise constraints. Furthermore, they look at finance as an afterthought rather than infusing financial constraints at the outset.

Both of these widespread problems cause S&OP strategies to be less informed than they could (and should) be. **In the end, money is being left on the table.** In order to understand how S&OP professionals can begin improving their strategy, let's first dive into these two problems a bit deeper.



## Lack of End-to-End Alignment Due to Increased Complexity in Supply Chains

Today's highly competitive landscape is not the same as when S&OP was first created. Firms are constantly having to innovate and deliver products that recognize rapidly changing localized preferences—or at least adapt to moving price points and complex global contracts—while efficiently managing regional or global supply chains. Supply chains have evolved into multi-enterprise, demand-supply networks. These networks have to deal with multiple risks and even take on new objectives (e.g., sustainability). Every enterprise that's part of this complex web needs to look at ways by which they can add value both to their customers and to their trading partners. Currently, companies within these value chains are unable to globally optimize their enterprise in this complex environment because they are using siloed systems.

## Lack of Financial Integration

“Why do many integrated business planning initiatives fail to live up to expectations?” A recent Oliver Wight survey finds that lack of financial integration is a common gap. The survey found that financial controls are too often put at the bottom of the priority list across operational functions in an S&OP or IBP implementation. Nearly half of respondents (45%) said that financial controls, including inventory valuation and disclosure, are not adequately considered in their S&OP or IBP program. **The survey also revealed that less than one-third (28%) of S&OP professionals agree that financial controls introduced in their S&OP or IBP process will “completely align” with their company's financial objectives.** Yikes.

True, there are problems (like the two mentioned above) that need to be addressed in S&OP strategy, but how do we go about solving them? The solution is an obvious one: S&OP processes must be factored into strategies adopted by C-Level executives in order to align the entire business. This key step—which many companies have yet to take—can bring unmatched insight to the company as a whole.

## The Importance of Having an S&OP Strategy That Works for Your C-Level Executives

In this new landscape of increasingly complex supply chains, S&OP is the key driver of decision-making in the tactical 3- to 18-month timeframe. It can have a transformational impact on a company's ability to create an unmatched competitive advantage within their value chain. **It's up to management to redefine the objectives of S&OP in order maximize value while appropriately balancing strategic objectives and risk.**

# CHIEF EXECUTIVE OFFICER

## Challenges Faced by the CEO

A key challenge facing CEOs today is the ability to tie strategy to operations seamlessly. CEOs often don't realize the potential that S&OP has in being able to impact strategy. S&OP continues to be a supply chain tool to create forecasts and feasible supply plans to meet the demand. In other words, the focus of S&OP tends to be on volume planning, not on finance-driven demand and supply shaping.

### Improved S&OP Strategy That Helps the CEO

#### Strategy #1: Help CEOs to Tie Strategy Back to Operations

A traditional approach to S&OP uses heuristics to assume alignment with a company's strategy, considering things like: How can we manage new product introductions for volume? What volumes should we assign to strategic customers?

**By explicitly considering the company's strategic objectives, S&OP strategy is able to instead address things like:** How can we optimally drive new product introductions and what is the value expected over time, including opportunity costs? What is the impact of sustainability targets on demand, supply and financial performance? Where is our network suboptimal and how can we optimally allocate investments?

The explicit description of an enterprise's business in terms of various kinds of constraints—like demand, supply, promotions, inventory, cash flow, etc.—will allow CEOs to focus on the big-picture of how their strategies align with the objectives of the organization. Simultaneously, this will allow the rest of the organization to have a shared context through the same model.

#### REAL-WORLD EXAMPLE



A utility wanted to target a 50% reduction in carbon emissions by 2020. By embedding these targets into their S&OP process, they discovered it would require at least 30% more capex and that they would need to increase their rates (prices) by at least 25%. Ultimately, they adopted a target that was still aggressive but more achievable by the business and also acceptable to shareholders.

# CHIEF FINANCIAL OFFICER

## Challenges Faced by the CFO

Supply chain has become the go-to place for CFOs to find cost savings, as exemplified by the large-scale outsourcing of processes occurring over the last decade or two. However, the scale has been tilting from looking at supply chain as purely a cost center to looking at it as a profit center (again illustrated by the near shoring initiatives that are taking place now). CFOs can no longer think of themselves as traditional Sarbanes Oxley compliance officers; instead, they need to be part of the supply chain and commercial strategy process. S&OP is the ideal process for CFOs to become embedded and contribute. However the participation levels of CFOs today in S&OP is still quite limited.

## Improved S&OP Strategy That Helps the CFO

### **Strategy #2:** Consider Financials as an Input into the S&Op Process

S&OP strategy commonly involves aggregating plan results into financial impact. This would commonly address things like: How does an approved S&OP plan translate into P&L and cash flow forecasts?

By considering financials as an input into the S&OP process, modern strategy is able to focus on the following: What plan optimizes profitability? What plan optimizes cash flow? What plan optimizes ROIC? What is the right amount of working capital and its impact on business outcomes?

### REAL-WORLD EXAMPLE



A company in the natural resources space discovered that a customer who represented 24% of their revenues was at best net neutral to their profitability. After many negotiations, they dropped the customer and have since picked up more profitable customers, resulting in 2% of revenue being translated into additional profit.

## Strategy #3: Integrated Financial Accounting, Managerial Accounting, and Operations

The biggest challenge in integrating financials into S&OP is that costs and revenue are not included in the plans until the end. At best, standard costs are represented in the form of unit costs of production (i.e., how much does it cost me to produce a unit of product in this plant vs. another). A further challenge is that, during S&OP processes, the difference between financial accounting and managerial accounting is not taken into consideration.

### Financial Accounting

**Financial accounting** follows GAAP. The reason financial accounting exists is to ensure legal compliance for how businesses track, recognize, and measure revenue (costs, depreciation, intangible assets, goodwill, etc.). Governments and investors want all businesses to be measured on the same grading stick and to have confidence that financial measures can be compared across businesses. While the occasional pro-forma statement may be issued, financial accounting is primarily dealing with accounting for historical transactions. Everything must be accounted for. Everything must balance.

### Managerial Accounting

In contrast, **managerial accounting** serves the decision-makers in the business in the interest of making the best business decisions. It does not serve shareholders, creditors, or public regulators. The data used is looking forward to upcoming decisions. The data is also specific to the business process and decision at-hand. Compared to financial accounting data, the managerial accounting data will not necessarily match or account for every last penny. This makes sense given that it is only for the decision at-hand and that decisions should be made on their forward-looking marginal impact on the business.

Nevertheless, to make great decisions that are also actionable (in other words, that people in the business will execute), we should be able to not only find the decision with the best impact on the margin but also present its implications on the financial accounting because this is because a) CFOs/finance are more likely to approve decisions if they can tie them to financial accounting, and b) most managers are ultimately paid according to their impact on achieving their financial accounting objectives.

### Acknowledge the Differences

The differences between financial and managerial accounting must be acknowledged. Furthermore, understanding that **there are ways to meet the needs of business decision-making and financial accounting simultaneously is paramount.**

If we only include those costs and parts of the business related to the decision at hand without including those

that are fixed (e.g., won't change regardless of the decision at hand), then we are at the risk of being right but not getting the buy-in of a key stakeholder.

There's a win-win in this dilemma, though. We can create models driven by managerial accounting while including the necessary fixed costs and accounting to report the solution in a way that reconciles with financial accounting. Though we may get there differently, good prescriptive modeling should include (or better, yet have inherently built in) a way to see the total financial effects of the set of decisions on the business.

## REAL-WORLD EXAMPLE



An Oil and Gas midstream company was able to change their planning approach by focusing on the plans that would maximize their total NPV, which changed their asset investment decisions to tie them closely into S&OP and overall NPV combination.



# CHIEF OPERATING OFFICER

## Challenges Faced by the COO

Forecasting demand for products and/or services is a key part of any S&OP process, making S&OP a great place to start when trying to maximize shareholder return. But the key to optimizing financials is understanding what actions you can take to impact demand and what the implications for taking those actions will be.

For example, many companies have the ability to impact volume through advertising, promotions or discounts. We see this frequently in consumer goods with offers like “buy one, get one free.” Other companies have the ability to impact demand through other incentives like sales spiffs. Still other companies understand that their product or service is more commoditized and has a measurable demand elasticity that dictates the price they can expect, given specific volumes they make available (oil, steel, etc.).

## Improved S&OP Strategy That Helps the COO

### **Strategy #4:** Focus on Demand Optimization on Top of Traditional Demand Planning

Each of these actions to influence demand comes at a cost, and that tradeoff must be understood to select the optimal combination that drives maximum growth and financial performance. Furthermore, many of these tradeoffs can only be taken with respect to various constraints that may prevent a company from impacting demand (customer service level agreements or SLAs, contractual obligations, sustainability measures, market share targets, etc.).

Some constraints can be broken at a cost or penalty which, if explicitly understood, multiplies the number of decision possibilities. But more complexity can also mean more potential for optimization and, ultimately, value capture.

### REAL-WORLD EXAMPLE



A CPG company that adopted a focus on demand/product mix optimization was able to identify promotional campaigns that would earn an ROI well below the company's cost of capital, as they would require inventory build and use of overtime resources, and shift the funds to products and channels where the ROI would be on target.

## Strategy #5: Opt for Global Planning Over Sequential Planning

The challenges associated with sequential planning are extremely clear to practitioners:

1. Inability to arrive at an optimal solution due to approximations done at each step of the process.
2. Inability to do rapid re-planning due to time taken for each sequential step.
3. Financial outcomes are an afterthought or not even a consideration.
4. Local functional level optimization trumps corporate strategy and goals.

Sequential planning is not really how the typical business-minded supply chain executive thinks. Time and again, we have collectively heard from supply chain executives that they make decisions based on a global picture, taking into account all of the constraints of their business—people, demand, supply, financials, strategy, regulation, etc. Unfortunately, **the way systems are deployed today does not reflect this global planning approach.**

### REAL-WORLD EXAMPLE



A large coal mining company used to first plan production, then how much demand they could fulfill and finally the financial implications. After adopting global planning, managers could optimize their product mix, supply plan and financials simultaneously. Across 800 customers, price curves based on caloric content and contract SLAs, 30 mines, multiple washing/blending spots, different transport modes and ship from/to locations, they would know exactly which blend to deliver to each customer, when and the best plan to deliver it. It was worth it, as they captured 4% of the revenue in additional profit.

# CHIEF SUPPLY CHAIN OFFICER

## Challenges Faced by the CSCO

Chief Supply Chain Officers today don't have a good handle on the costs associated with their business. Their focus is often purely on volumetric supply-demand balancing. Costs in a business can be dynamic. Costs that are variable can become fixed and vice versa, depending on your decision time horizon.

For example, in many companies, the S&OP process looks out across a 12- or 18-month time horizon, often focusing first on ensuring that next month's plan hits the revenue and profit targets that will help them achieve their quarterly/annual targets. In that next month, production capacity of a plant will probably be a fixed cost. There's nothing this company can do to decrease or increase capacity between now and next month; it's fixed.

But looking at the same plant a year out is different. The company has options to invest capital and increase capacity or shut down lines and decrease capacity. These options are variables for financial optimization and would now be represented as variable costs.

### S&OP Improvement Opportunity

**Strategy #6:** Include Fixed Costs and Variable Costs as Key Decision Parameters During Supply Planning

#### REAL-WORLD EXAMPLE



A company used to make capacity-planning decisions based on trying to meet demand, using rules-based algorithms (i.e., heuristics). The algorithms first prioritized the plant closest to the customer, and if that plant was full, used standard cost to allocate production to the next plant. Then it tried to determine the resource levels required to meet demand.

When they adopted a full view of the supply chain with financials embedded, they discovered their rules were costing them as much as 10% more than using global optimization to plan their capacity. Nowadays, some of their plants run seven days a week, full time, while others run two shifts, five days a week. Even more importantly, management and employees understand why.

## Strategy #7: Calculate the Marginal Profitability of Constrained Resources

Now we understand how we can impact demand and the costs of the business operation relative to the time horizon (both essential to financial optimization). But in order to maximize shareholder value, we need to ensure we are allocating resources and capital effectively, optimizing the balance sheet along with the P&L.

To optimize capital allocation, we need to understand the marginal profitability of our resources, specifically the constrained resources. Again, S&OP provides a great launch pad—the supply planning function of most companies has already identified the constrained resources in their operation.

By next understanding what additional products could be sold with an extra hour of each constrained resource (or with an extra day, if that's your level of granularity), and netting the additional revenue against the additional cost of supplying the product, we can understand the value of releasing that constraint. If we can also understand a) the tradeoffs of the products that can be produced, and b) which combination will generate the highest marginal profit, then we can truly optimize for profit and capital allocation.

### REAL-WORLD EXAMPLE



A paper company was able to use marginal profitability of resources as a guide to optimizing their use of capacity, and ultimately identifying performance improvement and capital allocation projects. By using optimization and marginal decision-making methodologies, they improved ROIC by 30%.

# CHIEF TECHNOLOGY OFFICER

## Challenges Faced by the CTO

The traditional approach of implementing Integrated Business Planning tools has been bottom-up, wherein companies first implement a systems of record tool and then try to expand the systems of record tools into a differentiated tool. This approach is fundamentally flawed, as these tools have not been designed to do rapid prototyping of various scenarios or come up with optimal solutions.

These tools have been designed to do heuristics-based solves (heuristics refers to rules-of-thumb-based algorithms that are designed to do rapid and simplified planning), which may partially solve a problem and come up with a feasible solution. However, this “solution” will rapidly devolve into infeasibility once the solution becomes live.

In order to understand why the current systems implementation methodology is flawed, we must first understand Gartner’s standard PACE layering approach. This approach is applicable to the integrated business planning space. Gartner defines three layers of systems that are relevant to any domain (which can be seen below in Figure 1):

### Systems of Record

This is the transactional software layer, which is highly commoditized but key for many companies in their day-to-day operations. This layer is for situations in which the company knows exactly what they want; in that sense, the solution does not have to be unique.

Examples of these are ERP and demand planning/forecasting systems. Projects with these systems tend to be IT-driven, require high IT budgets and are looked upon as a necessary organizational evil. This solution is both sticky and mission-critical to companies.

### Systems of Differentiation

This is the software layer meant for situations in which the company knows what they want, but they want it to be different from the competition. Common examples of SODs are S&OP/response tools that do heuristic-based planning. There is a need for the “connective tissue,” as Gartner refers to, such as master data management for cleansing and bringing in new data, BI/analytics for reporting and so on.

These projects tend to be greenlighted at the business level but require a significant amount of work by IT at the “connective tissue” level in order to make the projects successful. This solution is sticky and runs on

operational software that requires periodic data updates. Most of the tools in this category are packaged applications, which do not allow the organizations to control their own innovations and/or allow a path to implement a systems of innovation.

### Systems of Innovation

This is the software layer that is truly built from the ground-up, which allows companies to heavily experiment and figure out what they want to do. This software layer is designed for companies that want to answer questions in a rapid manner, proof test solutions and drive tremendous value if the project succeeds. If the projects don't succeed, new approaches can be easily tested out with minimal disruption.

Examples of these are things like modeling/optimization tools that can be rapidly prototyped and visually-driven predictive analytics tools. Unfortunately, these tools have been typically implemented as projects and are often done as one-offs, typically organized by management consultants.

### S&OP Improvement Opportunity

#### **Strategy #8: Implement a System of Innovation First**

Instead of traditional approaches, a top-down approach of implementing systems of innovation and prototype scenarios is proposed for companies to arrive at optimal results. At this stage, there is no need to invest heavily in “connective tissue” technology.

Once the experiments are conducted and good results are obtained, the task of productizing the solution has to be completed through the systems of differentiation-based “connective tissue” technology.

## REAL-WORLD EXAMPLE



A mid-size paper manufacturer decided not to implement a demand-planning process but instead implement an Enterprise Optimization™ tool to identify improvement opportunities. Once the prototype of the business model was built out and opportunity areas identified, demand-planning capabilities were implemented using a custom approach rather than implementing a packaged solution.

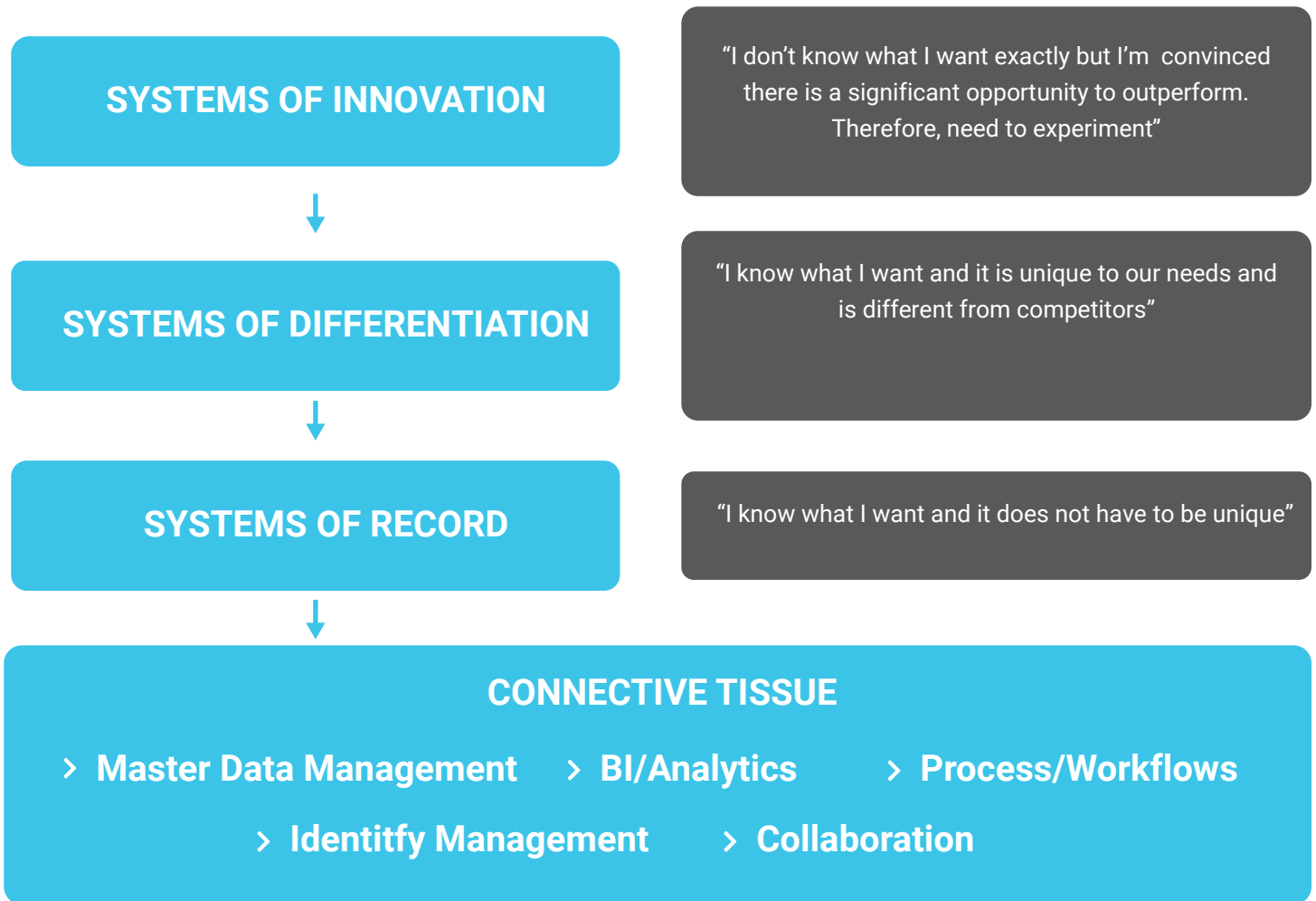


Figure 1. PACE Layer and Connective Tissue

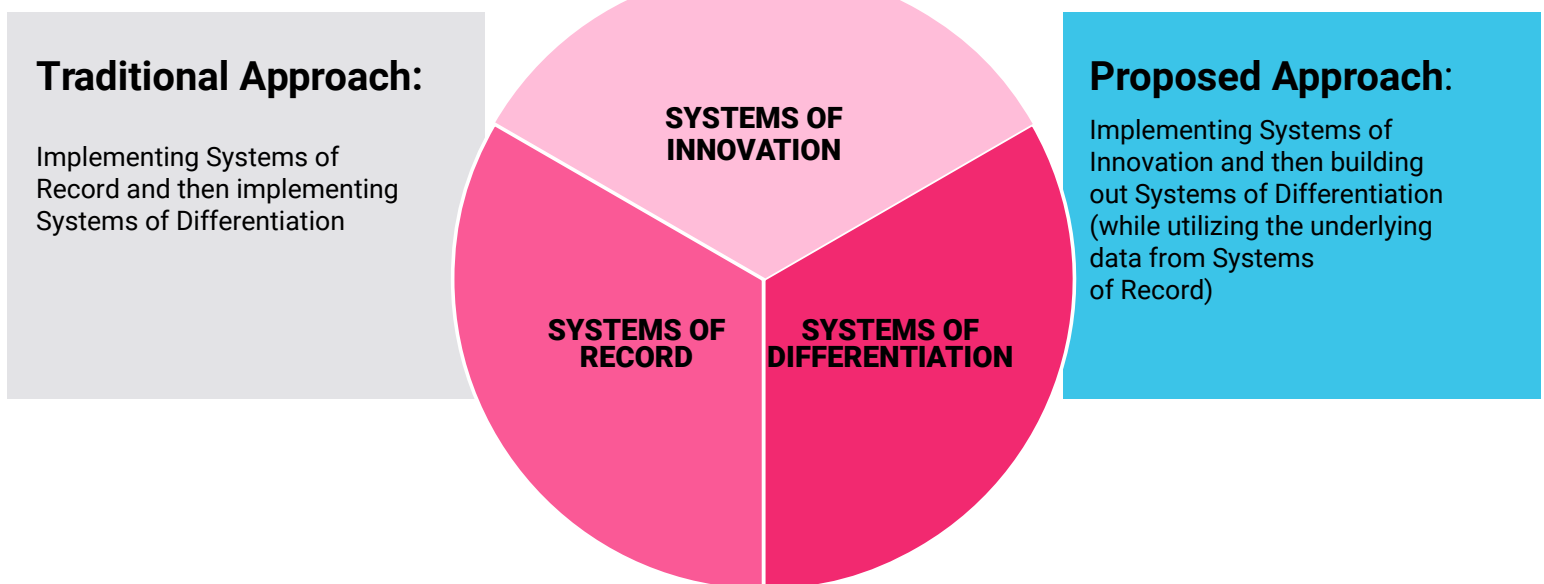


Figure 2. Traditional IT driven implementation approaches limit business value and eliminate opportunities to outperform

# CONCLUSION

Through the eight strategies outlined in this e-Book, we can see there is a great opportunity for every C-Level officer in an organization to re-orient their focus on S&OP toward meeting financial goals and company objectives. Lastly, in order to further guide the process of aligning S&OP strategy and C-Level executive goals, we've provided a table of the types of questions C-Level officers currently focus on and what they actually need to focus on (Table 1).



Role	Traditional Questions	Modern Questions
CEO	<ul style="list-style-type: none"> <li>&gt; How can we manage new product introductions for volume?</li> <li>&gt; What volumes should we assign to strategic customers?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; What strategies do I adopt to maximize shareholder value?</li> <li>&gt; How do I execute these strategies operationally?</li> </ul>
CSCO	<ul style="list-style-type: none"> <li>&gt; Which demand should we fulfill?</li> <li>&gt; Can we supply this demand?</li> <li>&gt; What is the most efficient way to do it?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Which demand should we proactively drive?</li> <li>&gt; With which products and at which channels/customers?</li> <li>&gt; Which demand should we supply?</li> <li>&gt; What plan maximizes overall value?</li> </ul>
COO	<ul style="list-style-type: none"> <li>&gt; Can we support this customer contract?</li> <li>&gt; Can we support last-minute promotional campaigns?</li> <li>&gt; Should we build up our inventory of complex products?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; How can we structure a customer contract to maximize value?</li> <li>&gt; What is the profit impact of last-minute promotions?</li> <li>&gt; Does inventory build drive improvement in profit, cash flow and ROIC?</li> </ul>
CFO	<ul style="list-style-type: none"> <li>&gt; How does an approved S&amp;OP plan translate into P&amp;L and cash flow forecasts?</li> </ul>	<ul style="list-style-type: none"> <li>&gt; What plan optimizes profitability?</li> <li>&gt; What plan optimizes cash flow?</li> <li>&gt; What plan optimizes ROIC?</li> <li>&gt; What is the right amount of working capital and its impact on business outcomes?</li> </ul>

## About **River Logic**

River Logic has been a global innovator in prescriptive analytics (optimization) since 2000. Its platform — designed for business users — enables enterprise-wide optimization, collaborative planning, and performance management, all delivered through a revolutionary user experience. By understanding how to best utilize cross-functional resources and manage trade-offs, companies make more impactful decisions.

River Logic goes to market primarily through partner organizations like PwC, Deloitte, TBM Consulting, and Microsoft, helping them develop high-value applications that monetize their IP. Recent clients include Unilever, BHP Billiton, the FAA, McKee Foods, Peabody, the Russian Post, and Valero. Typical client value-add ranges from 10% cost reduction to 2-5% of sales in additional profit.

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