

Global Price and Margin Management



Introduction

There are few operational initiatives that can move the needle on company performance like price management. Independent industry benchmarking surveys have shown that most high tech manufacturers can improve gross margins by two to four percent when it is made a strategic priority. Not only can price management add significant value, it can often deliver it faster, at a lower cost, and with less risk than supply chain and cost reduction initiatives that promise to deliver comparable value.

Yet many pricing initiatives fall short. Apart from all the usual reasons that strategic projects fail — lack of executive sponsorship, ill-defined metrics and objectives, poor project governance, inadequate provision for change management, etc. — there are three areas in particular that undermine pricing initiatives in the high-tech manufacturing industry:

- **Scope:** Too often there is a failure to recognize that price management is more than just price setting and price optimization. For pricing initiatives to be truly effective and add value, the solution focus must be extended to include the full life cycle of pricing, including price execution (quoting, negotiation, and special price approvals, as well as contract pricing and compliance) and price settlements (processing and payment of credits, rebates, commissions, and other incentives during the settlements process).
- **Priority:** The adage “a fair plan executed well will beat a great plan executed poorly” may have originated in military strategy, but it applies to pricing as well. There is a misunderstanding of the relative importance and value of price setting versus price execution. While both are important for maximizing business value, it is illogical to expect that setting “optimal prices” will result in better realized prices if the business processes and enabling technologies are not in place to support and enforce those prices during the price execution and settlements processes.
- **Fit:** One size does not fit all. Trying to customize generic solutions or adapt solutions designed for other industries to meet the specific needs of the semiconductor, component, or OEM industries is highly problematic. The global footprint of these industries, the complexity of their channels, and the way that business is transacted makes them highly unique in how they execute and realize prices. Given this unique set of characteristics and needs, industry-focused pricing solutions not only drive greater value but deliver it faster.

This white paper will introduce pricing within the context of a holistic Revenue Management framework; demonstrate the importance of price execution relative to price setting; and provide case studies of companies that have realized significant value from their investments in global price management.

Price Setting vs. Price Execution

Price setting includes the setting of prices and pricing policies that govern discretionary discounting and approval thresholds for special price exceptions. Given that pricing typically lives in the marketing organization, it’s the place that most companies look to first when they think about price management.

The easiest and most obvious way to improve pricing at this level is with better analytics. Many companies have extended their business intelligence (BI) platform or purchased third-party tools to support pricing-specific analytics — price waterfalls, price and margin bands, scatter charts, regressions, etc. — to help them diagnose and identify opportunities for improvement. Other companies seek to take price analytics a step farther and use various forms of “pricing science” to optimize prices.

The two most common approaches to price optimization are the classic, black-box optimization algorithms that seek to optimize prices during the quote process, and micro-segmentation, which attempts to fine-tune prices during the price-setting process based on a better understanding of buyer behavior and the correlation of product, customer, and market attributes to price. While the micro-segmentation approach has had some success in B2B — particularly in distribution — algorithmic optimization has by and large been discredited in most B2B markets. Algorithms have only demonstrated positive results in markets such as the airline, hospitality, and online retail industries that have commoditized offerings, high transaction volumes, and non-negotiable, take-or-leave prices.

But whatever improvements price setting and optimization might offer in theory, the reality is that these prices are still going to be negotiated against a high volume of special price requests and will melt away just as quickly as non-optimized prices with ineffective execution and enforcement capabilities. It’s not that price setting and optimization can’t offer value — they can. However, the absence of any public case study from any semiconductor or component company over the past five to ten years citing the measurable value of pure-pricing solutions should give any executive further pause for thought before investing in price setting and optimization.

Simply put, mediocre pricing executed well will outperform optimized prices executed poorly. To understand this more clearly, consider some of the price execution problems commonly experienced by high tech manufacturers:

- **Weak opportunity tracking.** Weak opportunity tracking. The global nature of the high tech manufacturing industry makes it extremely difficult for a manufacturer to uniquely identify and track all opportunities and registrations across the globe and across all channels. If a company is unable to see that an opportunity already exists or has already been quoted, it can lead to internal bidding wars, sometimes costing hundreds of thousands of dollars per transaction.
- **Manual quoting.** The response times of quoting systems that are heavily skewed towards manual price checks or that rely on telephone or manual email communications for price escalation and approval can have a direct and negative impact on quote-to-order conversion, especially with more commoditized products. Such systems also make it more difficult to track compliance with pricing rules and policies, and without automated systems, the ability to tie quotes back to opportunities and registrations is often diminished or lost, making it more difficult to see where wins and losses are occurring and why.
- **Design registration processes not tied to opportunity management and quoting systems.** For many companies, design registration is an off-line process managed with workflows and management tools that are separate from the opportunity management and quoting systems. It is inefficient for both the manufacturer and their partners and makes it difficult to track design wins and losses and automatically enforce margin agreements associated with design registrations.

- **Inconsistent handling and analysis of special price requests.** Special price requests that are routed for approval through email or telephone communications are difficult to audit for compliance and are more likely to contain errors and costly delays that erode prices and margins and negatively impact quote-to-order conversion. But even with more automated systems, there are often errors and inconsistencies in what gets approved since the available data, data integrity, tools, and analysis varies from one group and individual to the next. These inconsistencies drive wider price distributions which tend to accelerate price and margin erosion in markets under pricing pressure.
- **High volume of special price requests.** As a corollary to the inconsistent handling and analysis of special price requests, it only makes sense that errors, inconsistencies, and delays increase as the volume of special price requests go up. Given that the average semiconductor and component manufacturer has at least 50-60 percent of all deals going through a special price request process, the importance of having an efficient and consistent approval process is paramount. And with so many prices being negotiated, it also underscores the diminishing returns of trying to optimize prices during the price setting process.
- **Inconsistencies across multiple pricing and quoting systems.** Companies that do not have a single global pricing and quoting system, or ones that have a decentralized pricing organization, are vulnerable to sophisticated customers with multiple purchasing entities that are able to discover and exploit regional and organizational differences in opportunity management, pricing, quoting, and contract management capabilities. In extreme cases, it can lead to arbitrage and gray market opportunities.
- **Weak collection and management of POS data.** The collection and processing of POS data is critical for revenue recognition, payment of credit claims against debits, commissions, contract compliance, and the management of other channel incentives such as rebates, price protection, and stock rotation. For many companies, however, the collection and processing of channel data is a highly manual and error-prone process. Since delays and errors in payments tied to POS data can have a negative impact on relationships with channel partners, many companies simply pay or credit channel incentives based on what their channel partners claim is owed to them without doing an adequate job of reconciling the POS data against contracts, orders, shipments, and returns. As a result, internal and third-party audits from firms such as KPMG show that, on average, manufacturers are overpaying channels by ten percent. This is pure margin that is being given away and is a major point of concern for companies that recognize revenue based on POS data as it may put the integrity of their revenue statements into question.
- **Incorrect and inconsistent price resolution.** Pricing can be driven by different factors, including volume, territory, direct contracts, market price programs, channel contracts, step pricing, future pricing, and margin agreements based on registrations. Without a global pricing engine that integrates contract pricing and supports the complex hierarchies and relationships of customers and end customers, it is virtually impossible to consistently resolve the correct pricing for 100 percent of the transactions around the globe, regardless if it is an internal sales organization or a manufacturing representative.

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- **Weak tracking of contract compliance.** Contracts negotiated with channel partners and original OEMs typically offer discounts in exchange for a volume commitment during a specific period of time. As much as 10 to 15 percent of a contract's value may be lost, however, when the volume commitment is not met or when the discount is extended beyond the effective end date. On the other hand, when contract volume is being fulfilled through one or more distributors, or when the purchasing customer is a contract manufacturer ordering off of an OEM contract, it's not always easy to track contract consumption: volume purchased under one contract might be diverted to another customer or end customer. In any of these cases — under-consumption, over-consumption, and diversion of volume — the manufacturer is giving margin away and possibly eroding price if diverted material ends up on the spot market.

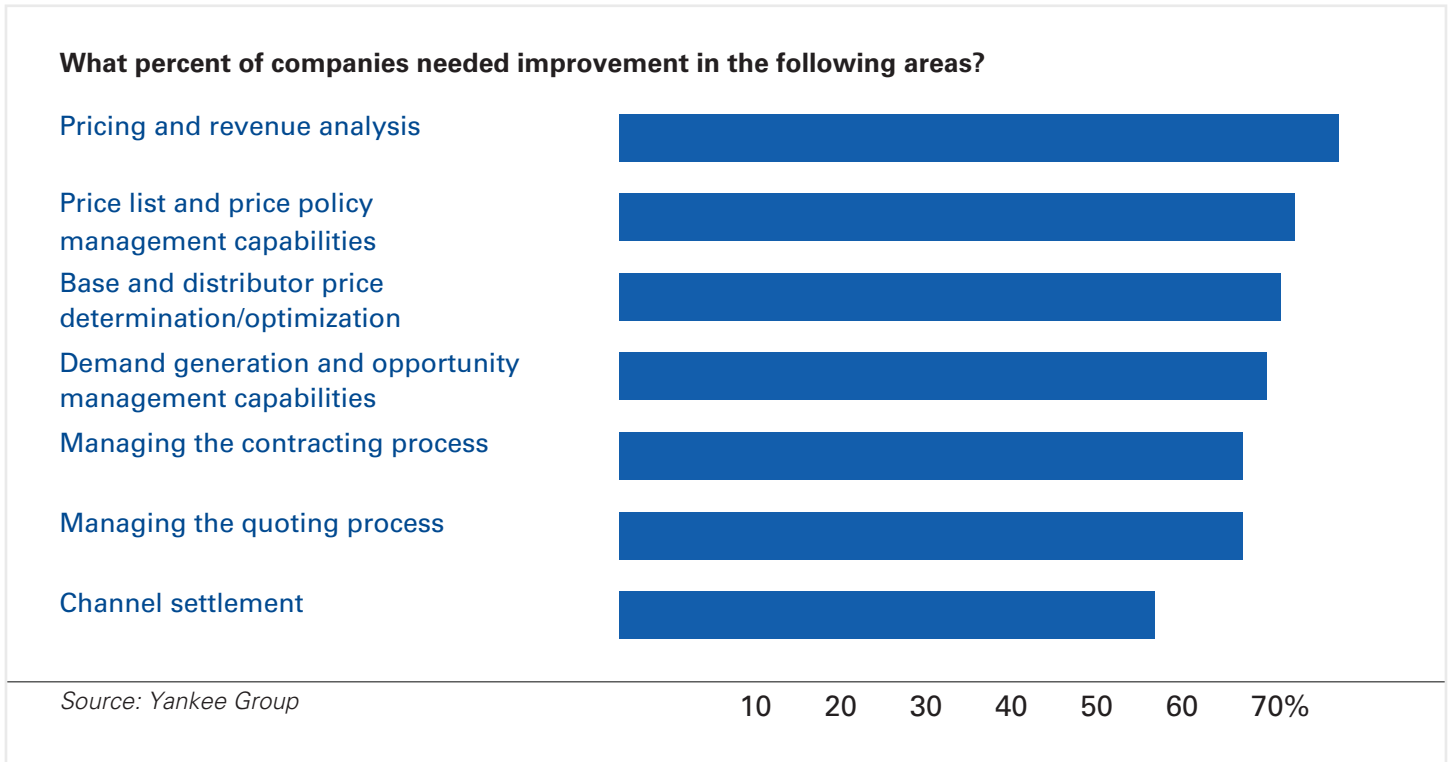
The Case for Price Execution

As an industry that in recent years has experienced rapid globalization, market expansion, and diversification, high tech manufacturers have continued to rely on new product development, faster times to market, and cost reduction to grow market share and manage profits. Accordingly, they have focused much of their investments on research and development, offshore manufacturing, and supply-chain automation to improve asset utilization and reduce working capital.

These same trends of globalization and market expansion/diversification have also impacted marketing and sales organizations that have had been forced to simultaneously deal with increasing channel complexity and customers that have become more sophisticated buyers thanks to their own supply chain investments. Yet, pricing and sales operations have received relatively little investment and many companies are still running with the same siloed transactional capabilities and sales infrastructure they possessed a decade ago. With no real integrated enterprise solution, applications and tools to manage prices, contracts, design registrations, channel incentives, and POS data have been bolted onto ERP systems as tactical solutions. A mix of reporting tools, spreadsheets, homegrown code, and point solutions, these applications and tools often are poorly integrated, have no common data architecture, do not scale, and have been customized to the point that no one dares to make any changes to them. Without an integrated framework and a consistent and coherent view of pricing, this evolutionary approach has left many high tech manufacturers struggling to manage prices and margins.

This reality is reflected in a Yankee Group study of 59 semiconductor and component manufacturers that found semiconductor companies losing an average two to four percent of gross margin from price erosion and overpayment of channel price incentives compared to best-in-class businesses. And as indicated in Figure 1 below, a majority of respondents felt strongly that their company needed improvements across the entire revenue life cycle.

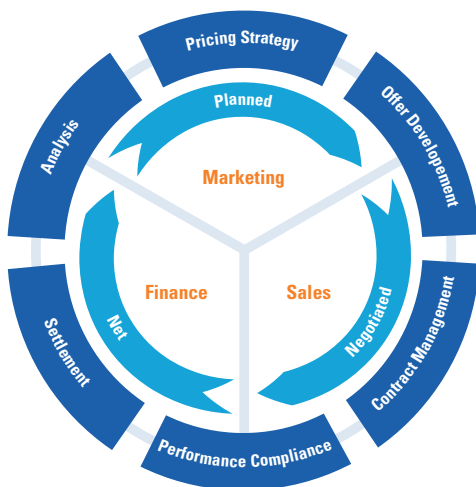
Figure 1: Respondents' Concerns for Improvement



Revenue Management: A Global View

High tech manufacturers wishing to improve their pricing and price management capabilities should approach pricing within the context of Revenue Management, a holistic and strategic approach to managing the entire revenue life cycle, from planned revenue through negotiated revenue to actualized revenue (see Figure 2 below).

Figure 2: Revenue Life Cycle



- Planned revenue:** The processes of price strategy, price planning and setting, and margin objectives
- Negotiated revenue:** The processes of mapping demand visibility and registrations to margin agreements, quoting, price negotiations, and contract compliance
- Actualized revenue:** The processes of managing incentive payments to channels and reconciling POS data that can be reliably used in support of revenue recognition

Revenue Management solutions allow companies to align business processes and individual execution through a transactional system that extends and complements existing legacy investments to manage the core processes that impact price, margin, and revenue recognition. These business processes, however, are often unique from one vertical to the next, as differences in data models, transaction types, compliance requirements, and application logic require solutions that are purpose-built for the vertical in which they are being deployed. There are significant differences in Model N's High Tech and Life Sciences platforms, for example, and there are numerous examples of applications designed for one industry (or all industries) that have failed or required an extraordinary amount of customization when deployed in the high tech manufacturing industry.

Key benefits of Revenue Management include:

- Improved visibility into demand by resolving duplicate opportunities and connecting POS and contract fulfillment back to opportunities and design registrations
- Reduced price erosion by avoiding sales conflicts
- Improved margins through effective price execution and enforcement across all channels and regions
- Improved top-line revenue by speeding quote-to-offer conversion time
- Reduced channel incentives overpayment by accurately reconciling POS with debit data
- Reduced risk of noncompliance with Sarbanes-Oxley (SOX) and revenue recognition practices through consistent and controlled adjudication of transactions and a full audit trail of all automated and manual decisions

Case Study: ON Semiconductor Eliminates Price Erosion

Arizona-based ON Semiconductor is a \$1.6B company that was spun-off from Motorola and taken public in the late 1990s. The company has a product line mix of 70 percent commodity and 30 percent proprietary. ON Semi was experiencing difficulties in tracking demand, allocating resources to the most lucrative opportunities, and managing its pricing effectively. Often, pricing negotiations started from the lowest possible point. The company invested in processes and tools that allowed its sales and field application engineers to focus on qualified opportunities early in the sales cycle, increasing their design wins. At the same time, ON Semi recognized that opportunities and design registrations are the gateway to transactions. Through its investment in the Model N Revenue Management Suite, the company was able to increase quote-to-order conversion by 15 percent and reduce price erosion, resulting in an annual savings of more than \$20 million. By deploying an integrated Revenue Management solution, the company focused its resources on better qualified opportunities and transacting effectively on those deals. The company's gross margin has more than doubled since it went public, going from one percent to the more than 40 percent.

Case Study: Microchip Positioned for Growth with Improved Quoting Capability

Microchip, a \$1B company based in Chandler, Arizona, is a world leader in the microcontroller market and sells a variety of microcontrollers, development tools, analog and interface products, and memory products to the automotive, communications, computing, consumer and industrial control markets. To support its growth ambitions, Microchip needed to expand its channel sales organization, but was unable to handle its current quote volume. Moreover, with 60 to 70 percent of design activity in the U.S. but almost 80 percent of revenue coming from outside the U.S., it needed a better way to track its global business. With Model N, it was able to dramatically improve visibility into demand, and increased its quote volume by 70 percent while at the same time reducing quote cycle times by 50 percent. The company's margin improvement as a result of reduced price erosion funded a 25% increase in its direct sales force.

Conclusion

Price management offers high tech manufacturers an opportunity to improve gross margins an average of two to four percent. The companies that have been most successful are those that have approached pricing as part of an integrated end-to-end Revenue Management solution, prioritized price execution over price setting and optimization, and selected solutions that were purpose-built for the high tech manufacturing industry.

Companies such as STMicroelectronics, Microchip, ON Semiconductor, Micron, Linear Technology, PMC-Sierra, FCI, Cypress Semiconductor, Avago Technologies, Cirrus Logic, Numonyx, Zilog, and IDT have already adopted Model N Revenue Management solutions to manage their entire revenue life cycle.

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