

Model N



Leveraging Revenue Management to Drive Growth and Improve Margins in the Semiconductor and Electronic Component Industries

A Model N White Paper

This white paper outlines the business challenges facing semiconductor and component manufacturers and their implications on gaining visibility into demand, pricing, quoting, contract compliance, channel settlements, as well as financial reporting and SOX compliance. It also outlines how a Revenue Management solution fits into manufacturers' systems architecture.

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1. Executive Summary

Semiconductor and electronic component manufacturers operate in a dynamic and complex demand chain. End customers can purchase products directly from the manufacturer or through manufacturing representative organizations, distribution channels, and contract manufacturers across multiple regions. The high rate of new product introduction, the cyclical nature of the market, and the diversification of product portfolios across computing, networking, telecommunications, automotive, and consumer electronics present new challenges for sales and marketing departments.

High industry velocity and transfer of business across regions are further compounded by the following issues:

- End customers have become sophisticated buyers armed with real-time data and global procurement systems designed to exploit suppliers' visibility and pricing inconsistencies
- Design registration, sales opportunities, manufacturing, and fulfillment have become distributed around the globe
- Demand created in one region might be purchased in different regions through several layers of channels and purchasing entities
- The revenue life cycle continuum, from opportunity through price negotiations to adjudicating channel claims, is managed by different departments in disparate silos, making it difficult to align field execution with marketing strategy to achieve corporate margin goals

As a result of these issues, semiconductor companies are struggling to enforce complex pricing rules across regions and channels, reduce quote response cycle times, track customer compliance with contracts, and reconcile point of sale (POS) data with debits. These challenges are causing companies to leak millions of dollars every year and increase the risk of noncompliance with financial reporting requirements and Sarbanes-Oxley (SOX).

A 2006 Yankee Group benchmark study of 59 semiconductor and electronic component manufacturers revealed that without a comprehensive approach to managing the revenue life cycle, companies experience significant revenue leakage. The margin loss stems from inconsistent pricing across channels and regions, internal bidding wars, noncompliance with contract commitments, and inaccurate reconciliation of POS data. The end result is semiconductor and electronic component companies lose **up to \$30 million in margin erosion on every \$1B in sales, or 3% of gross margin**. Another study of 35 semiconductor companies, released by Accenture in March 2007, indicated that semiconductor companies are losing 2.3% in gross margin due to price erosion alone.

The challenges described above are experienced by companies with proprietary and commodity product lines. Companies that provide **commodity** product lines are extremely sensitive to fluctuations in the demand curve. This increases their need to gain better visibility into demand and adapt pricing at lightning speed to respond to changing market conditions. These companies are pressed to increase the speed of doing business, providing customers with timely information and deal negotiation to take business off the market and away from competitors. Companies that provide **proprietary** product lines need to focus resources on early stage design-in opportunities and track design registrations closely. These companies also exercise their leverage in price negotiations to maintain high margins. Both commodity and proprietary driven companies have varying degrees of business flowing through indirect channels where they have to track POS data to support revenue recognition and financial reporting.

To date, solutions designed to address the specific processes of managing revenue have been primarily based on spreadsheets or custom-built applications. Few companies have been able to implement a holistic end-to-end solution to manage the revenue life cycle. Generic ERP systems were not designed to manage price negotiations, adhere to sophisticated segmented pricing rules, resolve optimal prices at the time of transactions, support deal analytics, track contract compliance, or manage the adjudication process of POS and debit data. **However, these are the processes where gross margin is determined.** Some business processes, such as ship, stock, and debit, are foreign concepts for many ERP systems. Additionally, design registrations, quoting, pricing, uploading POS, and inventory data all require transactional data exchanged with external parties such as manufacturing representatives and distribution partners. Generic ERP solutions fall short of truly managing all the constituents in the revenue process as they are designed to work primarily within the firewall.

Revenue Management introduces a comprehensive and integrated approach to managing the entire revenue life cycle, including the processes for creating visibility into demand and gathering design registration data. It then connects these processes with transactions to enforce margin agreements and pricing policies and enable interactive quoting, contract compliance tracking and deal analytics, as well as reconcile POS data with debits with a full audit trail of the adjudication process. Revenue Management solutions are designed to support the unique business processes of the semiconductor and component industry by complementing and augmenting generic ERP and legacy systems.

Over the past few years a growing number of semiconductor and component manufacturers have invested in dedicated packaged solutions for . According to the Yankee Group survey, these businesses significantly and consistently deliver superior overall business performance compared to their competitors across a range of critical metrics, including **an average of 2% to 4% annual gain in gross margin** from reduced revenue leakage associated with price erosion and overpayment of channel price incentives. For companies using solutions other areas of improvements include:

- Increased quote closure rates by 10% to 15% through the reduction of quote response times from days to minutes
- Reduction in inventory costs through improved visibility into demand
- Enhanced management visibility for decision making through real-time visibility into design registrations, opportunities, quotes, orders, and channel events
- Improved regulatory and fiscal reporting and compliance through automating processes and controls over pricing, exceptions, contracts, and reconciliation of POS data

2. Key Business Drivers for Revenue Management

The semiconductor and electronic component market is characterized by rapid product life cycles and the cyclical nature of the industry and is primarily impacted by poor visibility into demand. The industry has been transformed over the past 10 years by two main drivers:

- Product portfolios have diversified — once dominated by demand from the computing world, other segments, including telecommunications, networking, automotive, and above all consumer products, are now driving demand. This trend has added considerable complexity to the design, planning, and selling cycles.
- Globalization — demand, design, manufacturing, and fulfillment have all become global, introducing significant challenges to gaining visibility into demand, controlling ASP, pricing policies, or even understanding where business is being won and where it is lost and for what reasons

These two factors, along with the direct and indirect channels through which transactions are executed, have introduced several challenges that are causing manufacturers to bleed 3% of gross margin every year. The business processes that have had the most adverse affect can be grouped into four main areas: Visibility into Demand, Pricing and Quoting, Contract Compliance, and POS reconciliation and its implications on revenue recognition.

Poor Visibility into Demand

Enabling effective visibility into demand involves gaining visibility into design activity across the direct sales force, channel partners, and design houses, as well as understanding opportunities and avoiding duplication. Duplicate opportunities can occur when a single end-customer approaches multiple channels for a part. These competing channels in turn may approach different regional offices of the same manufacturer. Without the ability to triangulate customer, end-customer, part and assembly, or program, manufacturers may end up with duplicate opportunities that inflate forecasts and operational planning. Additionally, manufacturers run the risk of bidding against themselves through competing channels or even through the same channel across different regions, **eroding their price and margin**.

Visibility can get further complicated by managing design registrations. Some manufacturers manage hundreds and sometimes thousands of open design registrations. Managing the design registration and its approval is only the first step. Demand might be created in one region, but purchasing and fulfillment may occur in different regions. As a result many manufacturers are challenged to create the linkage between a design registration, a quote, a debit, and a POS data record, making it very difficult to understand what design registrations actually generated business and where that business is going.

In order to resolve these issues, manufacturers must be able not only to aggregate opportunity and registration data, but also make it actionable during transactions.

Inconsistent Pricing Execution and Long Quoting Cycles

Managing hundreds or thousands of different types of quotes and orders every month makes it difficult to consistently execute and enforce pricing policies across all channels and regions 24x7. Companies are challenged to apply sophisticated pricing rules and successfully enforce and execute those at the time of transaction. Lack of a repeatable process and support systems often prevents manufacturers from relating an order to a specific quote, contract, or design registration, making effective pricing virtually impossible. At the time of a quote or transaction there are many factors that can impact pricing: list price, book cost, regional pricing, volume discounts, future pricing, market price programs (MPP or channel contracts), contracted prices, and margin agreements based on design registrations.

Since many deals require extra processing and special pricing, quote turnaround time can be as long as one day and in some cases considerably longer than that, encouraging partners to shop elsewhere.

“Quote turnaround time has an impact on partner and customer satisfaction and ultimately on the conversion rate of quotes into orders. Additionally, the inability to enforce and execute pricing consistently 24x7 across channels and regions leads to as much as 2.3% in price erosion and margin loss.” (Accenture, March 2007)

To resolve these issues, companies must equip marketing and field sales with a unified global system capable of resolving prices in near real-time as well as managing special price request approvals with a complete, auditable track record.

Inability to Track Contract Compliance

Tracking usage or contract fulfillment is a daunting task for many manufacturers. The possibility that the same purchasing entity, e.g., a Contract Manufacturer, might be buying the same product on behalf of several end customers with different contracts is challenging. Additionally, volume commitments are hard to track if the manufacturer cannot relate a transaction to a specific contract. Many times customers will make volume commitments in order to secure a steeper discount rate but at the end of a year or contract term they have only fulfilled part of that commitment. Rarely are they penalized for this noncompliance. However, the manufacturer fails to realize the full margin potential of the deal. **On average, between 10-15% of contract value is lost.** (Yankee Group Benchmark Study December 2006)

Companies that implement systematic tracking of contract compliance can arm their sales managers with critical tools to be proactive with customers, helping gain more value from contracts and make better decisions on future customer contract negotiations.

Overpayment of Channel Incentives and Risk to Revenue Recognition

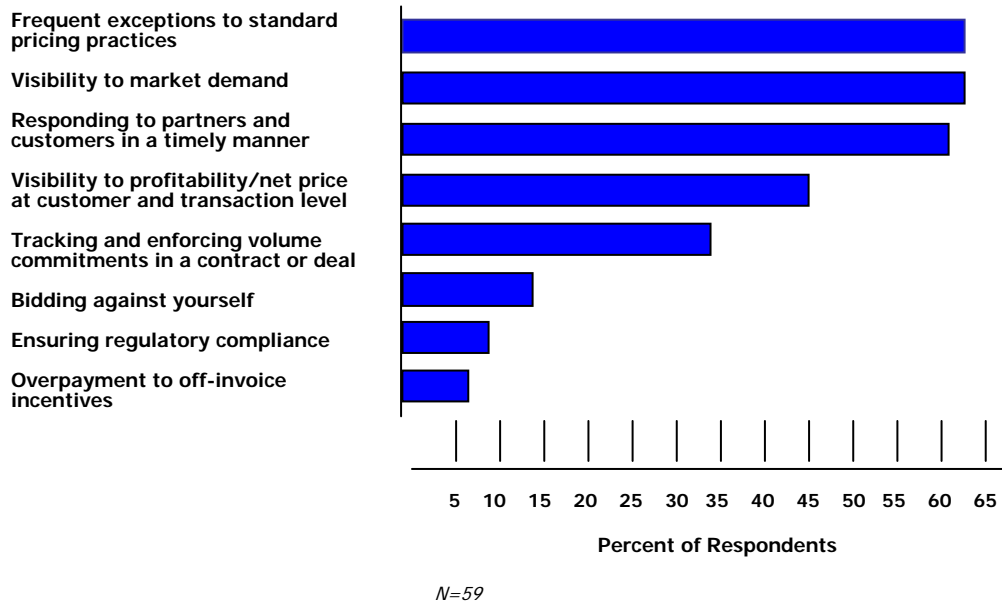
POS data reported by various partners must be validated against debits, end-customer name, part number, and pricing. Exceptions must be reconciled or rejected. Multiple data formats and data errors make this manual reconciliation process resource-intensive and error prone, and can **lead to overpayments (credits) of 10% to partners and a higher risk of SOX noncompliance.** With revenue recognition practices moving from a Point of Purchase (POP) revenue recognition model to a POS model, there are more stringent requirements for SOX compliance. Semiconductor and electronic component manufacturers that conduct any amount of business through channel partners are now required to enforce tighter auditable controls over POS and debit reconciliation as they **directly impact financial reporting.**

Companies must examine the entire transactional relationship with channels, including market price programs and price protection as they have direct correlation to debits and POS data. Controlling these processes through a unified platform allows companies to reduce channel incentives payments and provide a better POS adjudication audit trail for SOX compliance while reducing the risk of revenue recognition errors.

3. Benchmarking the Current State of Revenue Management

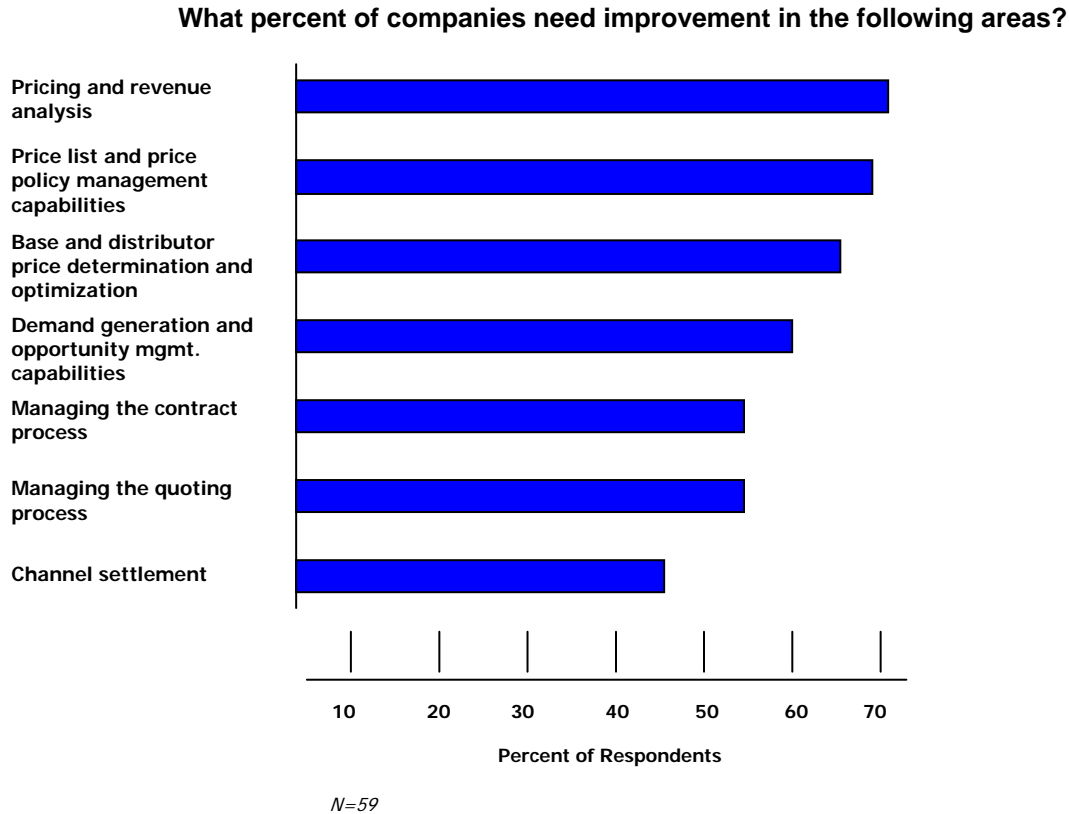
Analyzing the issues that respondents to the aforementioned 2006 Yankee Group benchmark survey consider to be their top challenges, Figure 1 below illustrates that companies are still struggling to understand the real demand for their products. Companies must balance responsiveness to customers to win business at better margins, and react to market conditions and competitive pressure with special pricing while systematically enforcing pricing policies to maximize their overall margin.

Figure 1
 Top Critical Pricing and Revenue Management Challenges
 Source: Yankee Group 2006



The survey findings clearly indicate respondents' desire for improved revenue and price management strategies (see Figure 2). The majority of the respondents felt strongly that their company needed improvements across the entire revenue life cycle from ongoing analysis (70%), price setting and policies (68%), demand/opportunity tracking and quoting (61%), contracts (54%) and settlement (46%).

Figure 2
 Respondents' Concerns for Improvement
 Source: Yankee Group 2006



Looking deeper into the survey responses to examine the current state of affairs, one learns that:

- Companies have defined pricing key performance indicators (KPIs), policies and thresholds, but 48% feel they can improve their ability to enforce the price or the policies
- Managing opportunities continues to plague many companies, especially companies with indirect channels. Although 43% of companies provide online access to customer and opportunity data, only 15% have self-service design registration capabilities for the channels.
- Quoting processes are still a major challenge for 54% of respondents, resulting in response times of 1 to 3 or more days to respond to customer quotes

The current state of the industry, as captured in the benchmark survey, highlights the concerns semiconductor and component manufacturers have related to maximizing the profitability of their business. These concerns are derived from the reality that companies are losing 2-4% of gross margin every year due to:

- Price erosion driven by sales conflicts, poor enforcement of pricing policies, and inadequate tools to manage analytical price negotiations on special pricing requests
- Lost contract value driven by the inability to effectively track and proactively response to unmet volume commitments
- Overpayment of channel incentives caused by a resource-intensive and error-prone process in reconciling POS and debits

4. The Challenges of Disconnected Revenue Life Cycle Processes

Typically, companies manage price setting, margin goals, and strategy through product marketing and tactical marketing groups. Price negotiations and execution is mostly handled by sales and only escalated to marketing for special approvals while other separate functions in operations and finance handle POS and inventory data. Managing the revenue life cycle is challenging due to the fact that tracking opportunities, design registrations, pricing, quoting, contracts, and reconciling incentive payments to partners is a series of complex business processes managed in an “over the wall” fashion across different departments (Figure 3). The process involves external reps and distributors and the data often resides in multiple systems.



Figure 3

The combination of this over-the-wall approach with disparate systems creates challenges for most semiconductor and electronic component companies attempting to trace the conversion of design registrations into quotes, debits, and finally to a POS record, which also means they are often unable to determine which opportunities actually converted into business. From a transactional perspective, these companies are challenged to execute sophisticated global pricing rules and endure revenue leakage through channel overpayments.

The impact is significant and has an adverse effect, including:

- Price erosion due to poor visibility and internal bidding wars
- Margin erosion due to inconsistent execution and enforcement of pricing policies and unmerited discounts
- Low quote to order conversion rates due to volume overload and quote cycle times
- Revenue leakage through overpayment of channel incentives
- Increased risk of noncompliance with revenue recognition regulation and SOX requirements

Revenue Management software enables semiconductor and component manufacturers to control revenue leakage, improve margins, and reduce risks associated with noncompliance with financial reporting requirements. Revenue Management software enables improved visibility into demand, optimal pricing strategy definition, improved pricing rules enforcement, and better control over channel incentive payments.

5. The Revenue Management Vision

Revenue Management offers a holistic and strategic approach to managing the entire revenue life cycle, from planned revenue through negotiated revenue to actualized revenue. Planned revenue refers to the processes of price strategy, price planning and setting, and margin objectives. Negotiated revenue addresses the processes of mapping demand visibility and registrations to margin agreements, quoting, price negotiations, and contract compliance. Actualized revenue applies to the processes of managing incentive payments to channels and reconciling POS data that can be reliably used in support of revenue

recognition decisions. The technology that supports Revenue Management is a unified, transactions-focused platform that integrates people, processes, and data across the extended enterprise and regions. 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. They offer a closed loop platform that connects opportunity and registration information to pricing rules, margin agreements, quotes, contracts, debits, and POS records.

The key benefits of Revenue Management solutions are:

- Improved visibility into demand by resolving duplicate opportunities and connecting POS and contract fulfillment back to opportunities and registrations
- Reduced price erosion through avoidance of sales conflicts
- Improved margins through effective price execution and enforcement across all channels and regions
- Improved top-line revenue by improving quote to order conversion through faster turnaround time
- Reduced channel incentive overpayments through the accurate reconciling of POS with debit data
- Reduced risk of noncompliance with SOX and revenue recognition practices through consistent and controlled adjudication of transactions and a full audit trail of all automated and manual decisions

Integrated Closed Loop

A key success driver for achieving maximum value from Revenue Management is the deployment of a complete, closed-loop integrated solution (Figure 4). Examples include:

- Pricing — Connecting opportunities and design registrations to global price management is essential. Quotes and contracts visibility is critical to assure that correct prices are communicated to the field and enforced at the time of transaction
- ERP Data — Communicating orders, shipments, and billings from the ERP system to front-end sales processes is required to empower the deal negotiation and customer analysis process and deliver optimal prices when possessing special price requests
- Contracts — Connecting orders and shipments to contracts is critical to track compliance with volume commitments and to track usage of OEM contracts by various purchasing entities
- POS — Connecting POS data back to debits and design registrations is critical to assure correct payments are made as well as providing much needed visibility into where the company is actually winning business
- Inventory — Connecting inventory to the price negotiation process allows manufacturers to make better pricing decisions based on inventory availability in competing channels

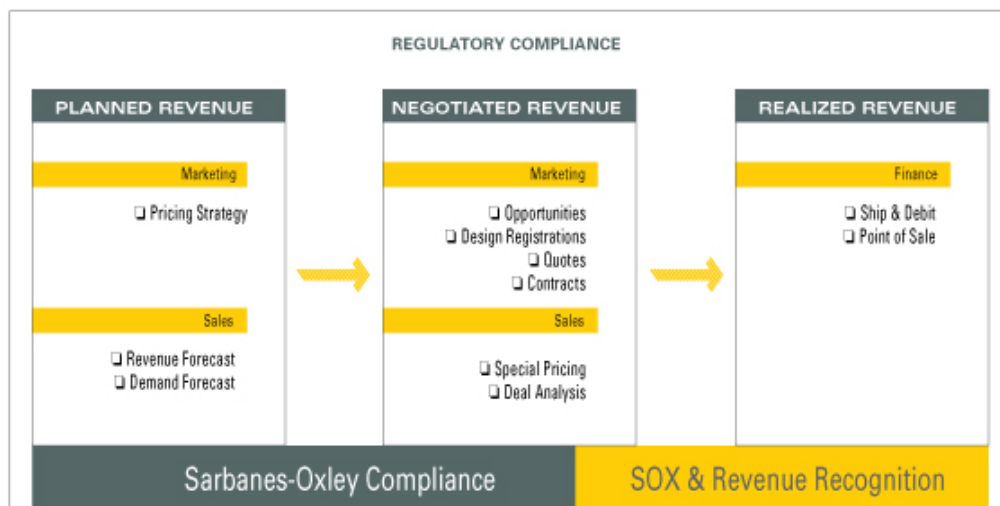


Figure 4

According to the Yankee Group 2006 benchmark study, companies that have implemented Revenue Management solutions consistently deliver superior overall business performance compared to their competitors across a range of critical metrics; an average of 2% to 4% annual gain in gross margin from reduced revenue leakage associated with price erosion and overpayment of channel price incentives. Other areas of improvements include:

- Increased quote closure rates by 10% to 15% through the reduction of quote response times from days to minutes
- Reduction in inventory costs through improved visibility into demand
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One Size Does NOT Fit All

While pricing, contracts, and channel settlements are widely used across many industry segments, when looking closely at the terminology, business process flow and even data models, one finds that each industry has very specific requirements. It is therefore imperative that Revenue Management solutions be designed for and map to, the needs of the industry segment it is serving.

Revenue Management for Commodity vs. Proprietary Product Lines

While there are significant differences in the go-to-market strategies and pricing pressures of companies with commodity product lines versus companies with proprietary product lines, each type of company needs functionality for different reasons.

Commodity Product Line and Revenue Management

Companies with a commodity product line are highly affected by fluctuations in demand. These companies operate in a fiercely competitive environment where price pressures, low margins, and speed of doing business are challenges to driving growth and maintaining market share.

- **Visibility into Demand**
While design registrations often play a smaller part in the life of a commodity company, visibility into opportunities through direct and other channels is critical for the company's planning, manufacturing, and pricing processes. Avoiding duplicate sales efforts and internal bidding wars across regions are critical.
- **Pricing**
Many commodity product lines have limited margins and are pressed by OEMs to lower costs and margins even further year after year. It is therefore critical for these companies to enforce pricing rules consistently, avoid maverick selling that offers unmerited discounts, and be able to adjust, deploy, and enforce new pricing rules quickly to adapt to shifts in the market.
- **Quoting and Contracts**
Contract life cycles for commodity product lines can be very short, as little as two weeks. However, regardless of the contract life cycle, pricing agreements and quotes need to be turned around at lightning speed to win business and secure market share. The ability to deliver quotes in hours and minutes can mean the difference between winning and losing the business.
- **Channel Revenue Management**
The ability to turnaround prices and quotes faster, track design registrations when they happen, and manage price protection and stock rotation effectively are all part making the business process easier. In the commodity world, where distribution can shop elsewhere for better prices and service, delivering fast response time can often keep business from going to competitors.

Proprietary Product Line and Revenue Management

Companies with proprietary product lines will put a heavy emphasis on early engagement with new opportunities and allocating appropriate resources to support design-in efforts. These companies often have design registration programs and focus on maximizing margins throughout the revenue life cycle, trying to leverage their position to drive better prices and demand more from their partners.

- **Visibility into Demand**

Very few organizations have the resources to actively engage in every opportunity with every single end customer. Many focus their resources on a limited number of high performing customers and leverage other channels such as manufacturing representatives, design houses, and distribution partners to help reach the rest. To successfully utilize external resources in attracting business, companies must have a well-managed design registrations program. They must also be able to connect orders and POS data back to design registrations to understand where business was won, as well as connect pricing rules to design registrations to enforce margin agreements at the time of transactions. Additionally, visibility into opportunities through direct and other channels is critical to avoid duplicate sales efforts and internal bidding wars across regions.

- **Pricing and Quoting**

Companies with proprietary products should have more leverage in price negotiations. However, multiple competing channels, a high number of pricing rules, and maverick selling making it difficult to execute pricing consistently across all channels and regions, leading to price erosion. More than 50% of transactions require special pricing approvals, which prolong the quote cycle and reduce customer satisfaction. Since historic pricing, current quotes, and orders and shipment information are not readily available to marketing and sales personnel, they are pressured into making pricing decision with limited real-time information, causing further margin loss.

- **Contracts**

Contract life cycles for proprietary product lines may last from 90 days to 12 months. Companies still struggle to associate order and POS data with specific contracts, making tracking contract compliance and contract use by multiple purchasing entities very difficult. This prevents companies from proactively engaging customers throughout the year to improve compliance and also limits a company's ability to manage the next set of contract negotiations by limiting access to customers' contract compliance history.

- **Channel Revenue Management**

Design registration programs are a vital part of the demand process and are important to help enforce margin agreements. The ability to turn around prices and quotes faster, track design registrations, and manage price protection and stock rotation effectively are all part making it easier to do business with. This is important for commodity and proprietary players alike. Lastly, managing debit requests, cleansing and reconciling POS data, and managing the adjudication process are all critical to reducing channel overpayments and necessary for providing a SOX compliance audit trail and accurate financial reporting.

Why is Revenue Management a Separate Technical Solution from ERP?

Today's business application landscape is clearly divided between tactical and strategic applications and in those categories we find a clear distinction between generic and vertical solutions (see Figure 5). Generic and tactical applications have been commoditized with a growing offering of on-demand and outsourced solutions such as payroll, expense management, and sales force automation. ERP, while strategic, has to a great extent been standardized and the market is dominated by SAP & Oracle, leading some companies to conform their business processes to meet the way the ERP suite is designed to work. Further investment in improving the effectiveness of standard processes is not yielding the impact to drive growth. Revenue Management manages the entire revenue life cycle for pricing, contracts and channel incentives with vertical focus on the industry requirements. The fundamental reasons generic ERP systems cannot meet the requirements of a closed loop Revenue Management solution are that they lack industry focus and lack support for the process and data model.



Figure 5

Generic ERP systems were not designed to manage price negotiations, adhere to sophisticated segmented pricing rules, resolve optimal prices at the time of transactions, support deal analytics, track contract compliance, or manage the adjudication process of POS and debit data. ***These are the processes where gross margin is determined.*** Additionally, due to the fact that design registrations, quoting, pricing, and uploading POS and inventory data all require transactional data exchanged with manufacturing reps and distribution partners, generic ERP solutions fall short from truly managing all the constituents in the process as they are designed to work primarily within the firewall. The inherent, role-based security model of all ERP systems requires that security tables be set for each external individual to determine their viewing and action privileges. The number of external users can reach hundreds and sometimes thousands of people, making the task of managing a large number of security tables an impractical concept which limits the scope, user community and therefore value, of such a solution.

Systems Can be Customized, but the Devil is in the Details

- ERP can hold price lists, **but** it does not manage price resolution per transaction with dozens or even a 100 price rules some of which may override each other
- ERP can allow external users to participate, **but** an IT organization will need to manage thousands of security tables on a monthly basis to maintain the system or cut-off all external involvement
- ERP can house POS data, **but** it cannot clean the data, automatically reconcile it with Debit and manage the adjudication process providing a full audit trail for each decision at the line item level
- ERP can produce quotes, **but** it was not originally designed to handle this task and therefore speed, ease of use, and end-user adoption are very low

Some semiconductor and component companies have tried to extend the basic order-to-cash functionality of ERP. Most have achieved limited success in emulating the full breadth of a Revenue Management solution, finishing with projects that fell short from delivering the full desired value. The end results are often still silos that do not integrate well, making it difficult to make data actionable at the time of transaction. There have been a few successful projects in recent years. However, the total cost of ownership for these projects was double to triple the required budget of a dedicated Revenue Management solution. These projects tend to reflect the experience of one company rather than industry-wide best practices. Unsupported by ERP vendors, these one-off projects cost a fortune to maintain over time, with the burden of support, maintenance, upgrades, and future development falling to in-house IT departments.

Traditional CRM solutions offer tools to track and report on opportunities. However, CRM by default is a non-transactional system, making it difficult to make the data actionable at the time of transactions. ERP solutions manage the order-to-cash process, however they are not designed to extend beyond the firewall to include external representatives and partners as part of the revenue life cycle and only offer rudimentary tools to manage sophisticated pricing. In addition, they can only store POS data but not reconcile it with debits or manage the adjudication process. These gaps in CRM and ERP functionality are creating the demand for a solution that will plug the holes in revenue life cycle management.

6. How Does Revenue Management Fit into the IT Architecture?

Revenue Management solutions, such as the one provided by Model N, are designed to complement Oracle and SAP ERP systems by providing an end-to-end platform, integrated at the transactional level, supporting opportunity tracking, design registrations, interactive quoting, global price management, contract compliance, debits, and POS reconciliation.

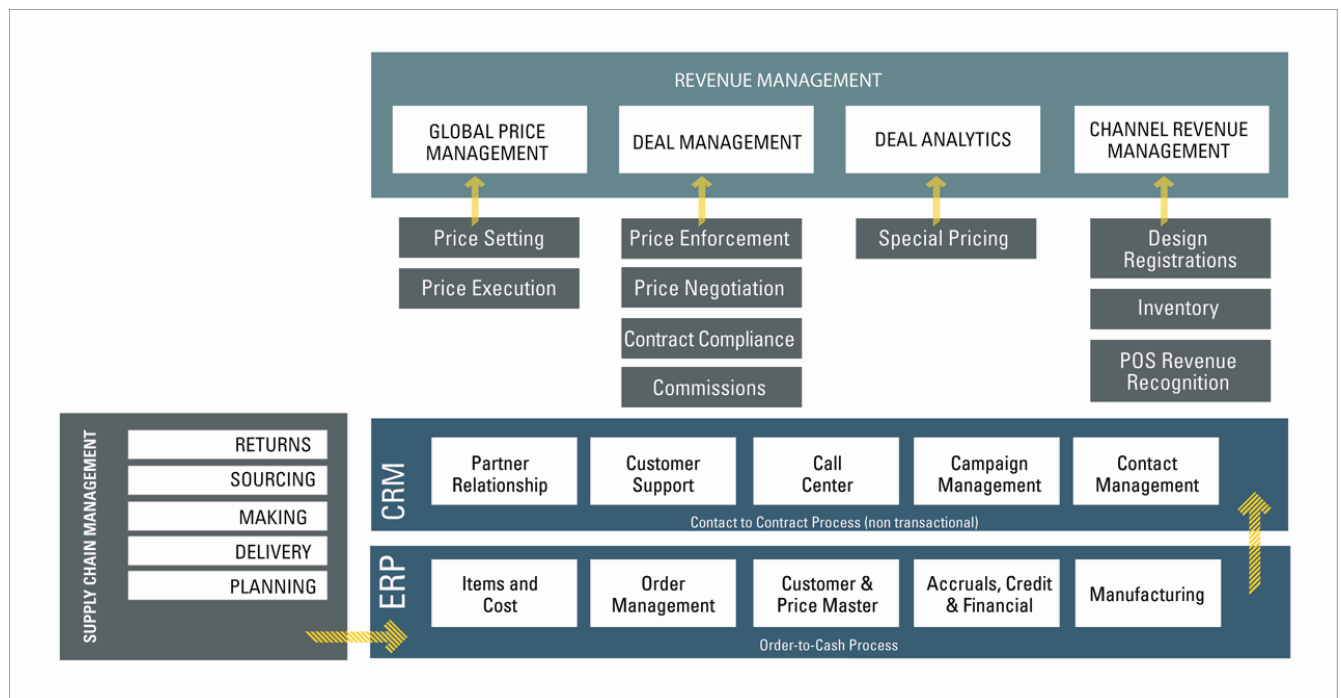


Figure 6

Figure 6 above illustrates how companies can leverage their ERP investments using existing data — without duplication of effort — to extend key areas of functionality. Following are the main examples of how Revenue Management software can complement ERP:

1. **Pricing:** Revenue Management software extends the basic capabilities of ERP from list price management to real-time price resolution based on hundreds of pricing rules with all required processes to handle price exceptions and escalations with a full audit trail and history of negotiated prices and decisions
2. **Quote-to-Order:** Revenue Management complements ERP by providing powerful quoting and negotiation tools that can extend to channel partners. Additionally, final quoting information is stored back in the ERP system so it can easily append appropriate prices to orders that come in against a negotiated quote or contract.
3. **End-Customer Management:** Revenue Management software allows aggregating and easily managing the information of thousands and potentially tens of thousands of end customers without having to go through the complex process of setting corporate IDs and accounts in ERP
4. **POS:** Revenue Management extends basic ERP ability to store cleansed POS data and actually manages the cleansing, reconciling, and adjudication of all claims delivering back to the ERP final data

Revenue Management software integrates and leverages the current investments a manufacturer already has in ERP, supply chain, and CRM solutions. Integration points often include:

- **Customers:** ERP is the system of record for all direct customers and distribution partners. This data is used by the Revenue Management software for consistency. The Revenue Management software is often the system of record for end-customers whose numbers may reach to thousands.
- **Parts:** ERP is the system of record for parts. The Revenue Management software often uses this data while appending additional useful information such as part data sheets, inventory, and availability to promise.
- **Prices:** ERP is the master for list price. Sophisticated and segmented pricing rules are configured in the Revenue Management software and its price engine resolves and enforces pricing policies at the time of transaction. Revenue Management software also serves as the system of record for historical pricing.
- **Orders, Shipments, and Billings:** ERP manages and is the system of record for this data, which is often read by the Revenue Management software to provide compliance and usage data and analyze win trends for sales and marketing personnel.
- **Revenue and Financials:** based on POS and debit reconciliation, the Revenue Management software may update the ERP system regarding what revenue can be converted from deferred revenue into recognized revenue for companies that recognize POS-based revenue.
- **Inventory:** this data can be extracted from legacy systems or uploaded directly from channel partners and planning systems to provide sales and marketing with better visibility into inventory and product location that can influence pricing negotiations. Additionally, this information can be used to check how POS data reconciles with shipments information and inventory reports from channels.
- **Lead Time and Availability:** often read from planning systems, this information is required to support deal negotiations.

Revenue Management software is the system of record for:

- **Historical Pricing** — provides a price negotiation and price decisions audit trail
- **Design Registrations** – tracks which partners contributed to demand creation and who mainly provides fulfillment, which helps enforce margin agreements and channel compensation
- **Commissions** — connects opportunities to transactions to enable fast and accurate calculation of commission payments
- **End Customers** — reduces the need for creating hundreds and often thousands of full ERP accounts
- **Claim Adjudication** – provides a full audit trail for each line item accepted and rejected, which is both a SOX requirement and critical proof for revenue recognition decisions

7. Revenue Management Comes of Age

Revenue Management has come of age and is no longer limited to the realm of early technology adopters and innovators. Over the last few years, close to 30 Semiconductor and electronic component manufacturers in the U.S. have adopted Model N's High Tech Revenue Management solution. Customers including Texas Instruments, Micron, ON Semiconductor, Microchip Technology, IDT, Linear Technology, Intersil, Cypress Semiconductor, International Rectifier, Micrel, Pericom, PMC-Sierra, Exar, and over a dozen more have implemented Revenue Management and deployed the solution to 30,000 users in 50 countries. Our customers have implemented our solution in a way that allows distribution partners such as Avnet, Arrow, Future, and Nu Horizons to directly upload design registration information, and POS and inventory data, as well as self-serve on quotes and prices. The system is accessed on a daily basis by close to 15,000 users in the distribution community.

Semiconductor and electronic component manufacturers that have implemented Model N's High Tech Revenue Management solutions have typically been able to annually improve gross margin by 2-3% and improve quote to order conversion by 10-15% while reducing quote cycles by 50% or more.

After being live with Model N solutions for three years, ON Semiconductor announced in November 2006 that a conservative assessment of the impact of their Revenue Management investment revealed savings of \$20 million annually from reduced price erosion and an 11% improvement quote-to-order conversation rate.

Microchip Technology presented a case study in March 2007, after being live on Model N solutions for two years, that their Revenue Management experience dramatically improved visibility into demand, increased quote volume by 70% while reducing cycle times by 50% and their margin improvement due to reduced price erosion funded a 25% increase in their direct sales force.

A survey of 10 publicly traded high tech companies that have implemented Model N's Revenue Management solutions over a five-year period (200 quarters of financial data) has demonstrated an average 2.4% annual increase to gross margin through:

- Improved price enforcement and execution (supporting sophisticated pricing rules to drive better margins per transaction globally)
- Improved visibility into design registrations and opportunities across all channels and direct business reducing sales conflicts
- Tracking of contract compliance at the transactional level in support of better pricing and future contract decisions
- Faster turn around cycles on quotes improving quote to order conversion rates by 10-15%
- Faster and more accurate reconciliation of POS with debits, reducing overpayments to the channels, and improving financial reporting compliance

A comparison of the same 10 semiconductor companies to the financial performance of other semiconductor and electronic component companies reveals that the companies who have invested in Revenue Management solutions have **double the gross margin growth rate** of their peers and competitors in the market.

8. Conclusions

The past decade has seen semiconductor and electronic component manufacturers make significant cost-reduction investments. Over the past few years, these types of investments have been delivering a diminishing return.

While purchasing organizations have been adopting sophisticated processes and implementing global procurement systems, manufacturers have continued to operate sales processes in silos. They have settled for homegrown ERP add-on solutions to manage pricing, quotes, contracts, commissions, and channel incentive payments. This has made the manufacturers vulnerable to price and margin erosion as well as increased their risk of noncompliance with financial reporting requirements.

Now, semiconductor and electronic component manufacturers can take a holistic, end-to-end approach to overseeing the revenue life cycle by managing opportunities, pricing, quoting, contracts, and channel settlements as one continuum. This approach has delivered significant benefits to the companies that implemented Revenue Management by:

- Increasing gross margin by 2-3%
- Increasing top-line dollars by 10-15%
- Eliminating overpayment of channel incentives
- Improving the audit trail to support channel revenue recognition

Semiconductor and electronic component manufacturers who wanted to achieve and maintain a leadership position in the industry and increase market share have invested in Revenue Management solutions that enable improved visibility into demand backed with transactional controls enabling them to win more profitable business and outpace the growth and financial performance of their competitors.

As companies evaluate and determine their strategies, it is critical they validate that the solutions they select have the industry focus and comprehensive support for the entire revenue and margin continuum. Revenue Management solutions, designed to augment existing investments in ERP and other legacy systems, offer a much needed industry-specific focus and a closed-loop approach to managing the revenue life cycle, helping companies capture and improve margin at every stage of the revenue life cycle process.

About Model N High Tech

Model N, the leader in Revenue Management Solutions, offers an integrated application suite for managing global pricing, quoting and contracts, and the channel revenue life cycle. We have helped our customers increase gross margins by 2-3% annually by reducing price erosion, improving quote-to-order conversion rates, and by reducing overpayments to channel partners. Our Revenue Management solutions are designed and exclusively delivered to semiconductor and electronic component manufacturers. By enabling a seamless, end-to-end process, from creating visibility into opportunities and design registrations, to global pricing, to quoting and contracts, to managing channel incentive payments and reconciliation of POS data with debits, Model N's uniquely integrated approach improves visibility into demand, reduces margin erosion, increases quote conversion, and improves compliance with financial reporting requirements. Our solution is designed to complement and augment existing ERP systems such as SAP and Oracle. Our customers include PMC-Sierra, IDT, Microchip, Micron, Micrel, ON Semiconductor, Pericom, FCI, Intersil, and many others.