Revenue and Financial Margin Life Cycle Management Project Management Briefing Seminar 2003: Executive Panel Discussion

October 10, 2003

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A Study Prepared for SALION
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Revenue and Financial Margin Life Cycle Management Project
Management Briefing Seminar 2003: Executive Panel Discussion

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Executive Summary

Managing the revenue and margin lifecycle is a critical strategic focus for automotive suppliers to move beyond cost cutting as the primary manner of improving financial performance. Based on a Tier 1 supplier executive panel at the 2003 Management Briefing Seminar, this report captures best practices for improving financials by better managing the revenue and margin lifecycle. CAR's initial study, "Revenue Acquisition Management (RAM) Process: What's Working and What's Not," quantified the inefficiencies and potential for improving the "request for quotation" process. This report broadens the inquiry to the entire product development life cycle.

Suppliers agree that a well-managed RAM process can have a dramatic impact on revenue and financial margins. As the panelists discussed specific challenges, strategies, and metrics, the best practices highlighted below emerged. Each of these best practices adds weight to the argument that suppliers must focus on improving the RAM process to increase returns beyond simply reducing costs. Best practices that must be integrated into an efficient RAM process include:

1. ***Product Innovation***
   Innovation is a key driver of new program wins and of long-term profitability. By improving screening processes that assess customer needs and market trends and prioritizes business pursuit objectives, suppliers can better allocate scarce engineering and marketing to commercialize innovation.

2. ***Up Front Sales and Marketing***
   In order to penetrate new customers and new technology segments, suppliers must support these pursuits with additional resources. Suppliers who optimize their RAM process will free up constrained marketing and engineering resources to spend on future business development.

3. ***Collaboration Across Global Accounts***
   Suppliers need better visibility across customer and product groups and improved sharing of knowledge among these groups. Some suppliers are moving beyond simply fixing this communication problem by leveraging customer and product intelligence across diverse product portfolios and geographies.

4. ***Visibility into Costs and Assumptions***
   Management needs visibility into the drivers of cost, risk and return as early in the process as possible. Providing this visibility for every commercial opportunity allows management to better allocate resources to the most profitable business opportunities.

5. ***Customer Relationship Management***
   Suppliers must deal with the vast differences between their customers' product development and procurement processes. While suppliers attempt to standardize internal and interface processes, differences in customers – particularly between U.S.-based and Japan-based firms – require these processes to be flexible to work with all customers.

Background

The Center for Automotive Research (CAR) and the Altarum Institute are exploring strategies and tactics that suppliers may use to better manage revenue and margin through a component or system program's lifecycle. Our objective is to identify a new transaction model between buyers and sellers that will significantly reduce the cost of business in the automotive industry. This project is an extension of CAR's previous work on how suppliers manage requests for quotation from their customers.[1] That work provided an empirical understanding of how the bid response process works, and the financial implications of improvement. We are now extending our data collection and analysis along the entire product development life cycle, from concept development (pre-RFQ) through post-award. Our intent is to present an improved business model that will balance innovation, value, quality, and cost.

Our project methodology has three phases:

1. open-ended individual and group interviews with industry experts from the supplier community
2. a survey of suppliers on cost, productivity, and related issues concerning buyer-seller transactions, and
3. a forum designed to obtain manufacturers' responses to the views of suppliers, as gathered in steps one and two

This report summarizes our findings and conclusions from step one – the individual interviews and our panel discussion. During the interview process, data were collected during a 90-minute panel discussion conducted on August 6, 2003 during the annual Center for Automotive Research/University of Michigan Automotive Management Briefing Seminar in Traverse City, Michigan. To prepare for the meeting, phone interviews were conducted with each of the panel members. The executives who participated on this panel were:

- Kevin Alder, President and COO, Akebono Corporation
- Dan Blake, Global BSC Automotive Leader, IBM Corporation
- Steve Gifford, Vice President Global Sales and Marketing, BorgWarner Automotive
- Steve Hanley, Vice President Global Sales and Marketing, Dana Corporation
- Terry Helgessen, Vice President, Marketing, Denso International America
- Stefan Kroenung, Vice President Global Ford Business Unit, Autoliv

The session was moderated by John Henke, president, Planning Perspectives, Inc. Approximately 30 people participated in the audience. In this report, to protect the anonymity of our panelists, no specific comments, anecdotes, or strategies are attributed to any person or company.

We greatly appreciate Salion, Inc. for providing the financial support of this project; Mike Hedge, Hedge & Company, for all of his assistance in coordinating the session; and Dana Kraft of Salion for his help in reviewing and commenting on this report. We would also like to thank Matt Milas from Altarum and Bernard Swiecki from CAR for providing additional assistance in our panel and report preparation. And a special thanks to Cathy Rowe who helped coordinate our panelists' participation and the final report generation.

1 Automotive Suppliers and the Revenue Acquisition Process: What's Working, and What's Not? (in Adobe Acrobat) - Jonathan A. Morell, Bernard F. Swiecki, and David J. Andrea, 2002 http://www.cargroup.org/Publications.asp

Need for Suppliers to Better Manage Revenue and Financial Margin Life Cycle

The past 20 years have been characterized by two conflicting trends: vehicle manufacturers are outsourcing an increasing percentage of value-added design, engineering, and manufacturing of components and systems, while their suppliers (the supposed beneficiaries of greater outsourcing) are seeing a continuing erosion of their profits.

> How can the suppliers be providing more value-added work and controlling more engineering content, yet find themselves in a weaker financial position?

This question is even more perplexing given that in the past decade, vehicle production has reached record levels and has been less cyclical. This phenomenon is forcing a reexamination of the drivers of cost, pricing and profitability, not to mention the control over intellectual property.

A few financial benchmark numbers illustrate this point.[2] In the mid-1990s, a survey of 11 major publicly traded suppliers showed these firms generating cash at approximately 15 times interest expense requirements. Today, this ratio has dropped to the 6.5 times range. Similarly, return on total capital of these suppliers has declined from the low-20 percent range to the low-10 percent range today. In turn, valuations (as judged by share price to operating cash flows) that were running an average of 7 between 1994 and 1996 have decreased to an average of 5.5 between 2001 and 2003.

While the financial averages of the largest suppliers do not show immediate financial crisis, the decline over the past 10 years leaves little room for error. The question needs to be asked: "Where will the industry be (component suppliers in particular) if industry production drops 10 to 15 percent" – a correction that is well in line with corrections over the past 40 years. Such a scenario compares to North American production for 2003 that is estimated to be just 5 to 8 percent below its 2000 peak.

Much of the industry's business environment cannot be changed. Vehicle manufacturers' demands for price downs and their attitudes concerning supplier relations will remain an inescapable fact of business. However, suppliers can control both their short-term profitability and their destiny through better management of their revenue acquisition process. Based on CAR's and Altarum's past and current research, we believe suppliers must better manage the revenue acquisition process – from concept and innovation, through pre-quote marketing, request for quotation, award, and post-launch production. We believe this entire process must be carefully managed in order to improve financial results. Figure 1 illustrates this complete cycle.

[2] Automotive Parts Suppliers Comparative Automotive Analysis Research Tables, Brett D. Hoselton and Christopher D. Manuel, McDonald Investments, August 20, 2003 – a survey of some 11 major suppliers.

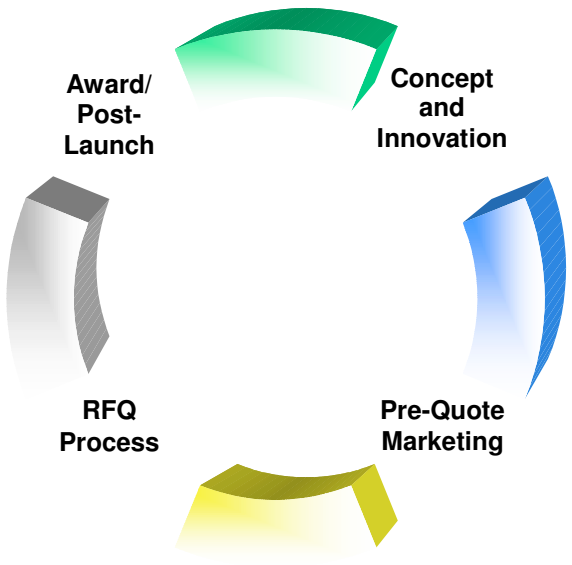

Figure 1

Automotive Supplier Revenue and Financial Margin Life Cycle

We used the concept of the revenue and financial margin life cycle to structure our panel discussion and the layout of this report. For each phase of the revenue and margin cycle, we present the following:

- **primary constraints** suppliers face in attempting to control and managing revenues and financial margins,
- **strategies** suppliers are undertaking to deal with these constraints and to increase margins, and
- **success indicators** (metrics) that suppliers are, or could be, using to define success.

Our discussion of metrics is presented to help establish an industry consensus on factors that explain the success of revenue and margin management improvement tactics. This material will be used to create a broader supplier survey that will assess (and where possible quantify) the true state of affairs in the automotive suppier community. Table 1 provides our working definitions of each life cycle stage outlined in the following sections.

While our references to suppliers in this report refer specifically to our panelists, we believe their comments and experiences can be applied to the supply base in general because the panel comprised experienced people representing domestic and foreign firms that serve a wide range of customers in a variety of automotive sectors. The represented firms are all well respected suppliers and are generally in the upper ranks of financial performance. In addition, while all our panelists are considered first-tier systems integrators, they also produce a wide range of discrete components.

Table 1 Life Cycle Stage Definitions

Stage Definition	Supplier Priority
Concept and Innovation: no production program, suppliers target new opportunities	Understanding customer needs
Pre-Quote Marketing: intelligence indicates opportunity, customer requests for design / engineering assistance	Influence design and manufacturing specs. Establish and address key business case drivers.
RFQ Process: production RFQ, suppliers allocate capital and human resources	Winning competitive bid
Award and Post-Launch: managing production schedules and ECNs.	Protecting and improving margins of current business

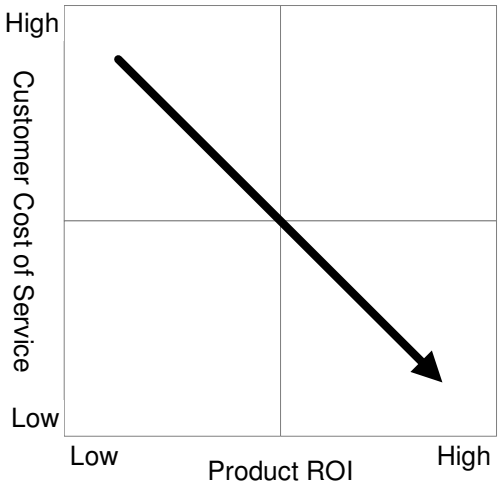

Figure 2

Supplier Portfolio Mix Strategy

Suppliers are trying to shape their business portfolio in two critical ways.

- They are shifting their customer portfolio towards companies with a lower cost of sales and service.
- They are moving their product mix towards systems, components, and services that have a higher return on investment.

Figure 2 depicts this shift. The "cost of customer service" is defined as the total actual cost of servicing a customer (engineering support, production schedule variation, and the like), plus the opportunity cost that derives from servicing customers with declining market shares and prices. Product "return on investment" (ROI) is a function of the level of value-add work contributed and the supplier's ability to control material and manufacturing costs. ROI is also influenced by how well a supplier can communicate its value proposition (the company and product) to its buyer. This report captures the panel's discussion of the strategies suppliers are using to simultaneously migrate their customer and product portfolio towards lower cost and higher revenue opportunities.

Phase I: Concept and Innovation

Revenue and Margin Management Constraints

Suppliers seem to focus on several critical areas in order to improve revenue and margins. First, suppliers recognize the need for early involvement in the product development cycle, but many vehicle manufacturers, as well as the major system integrators themselves, are reluctant to reveal advanced engineering concepts for fear of losing competitive advantage. Thus, suppliers are limited in their ability to influence design and vehicle system cost.

Second, many OEMs' product development processes inhibit early supplier involvement. For example, suppliers report that firms beginning the design of their next vehicle immediately after the release of the current program open up the greatest opportunities to reduce costs. In contrast, many manufacturers are noted for making sourcing decisions too close to Job One date, having fewer personnel continue onto replacement programs (making it difficult to transfer learning internally as well as between suppliers and customers), and carrying fewer components designs over to new platform programs. These attributes often lead to excess costs and time being built into the product development process that limit supplier revenue and margin opportunities.

Other constraints suppliers must adapt to include the declining engineering skills at various OEMs that put more responsibility on the supplier, and the increase long-term contract risk facing suppliers due to some OEMs continually requiting and resourcing programs in spite of contractual arrangements.

These differences in business practice are distributed unevenly between domestic and Japanese OEMs – the Japanese are generally less costly to do business with because of their disciplined product development and purchasing processes. Because their OEM customers act differently, suppliers are attempting to be flexible to meet varying customer requirements, and to be proactive in how they manage RAM targets in ways that recognize the cost of client relationships.

Supplier Strategies and Tactics

Suppliers emphasized the need to clearly understand customer requirements by developing relationships with a potential customer's design and engineering staffs. Methods for developing these relationships include identifying future platform component or technology opportunities, correcting current warranty problems, and making cost reduction or performance improvement suggestions for the systems into which a supplier's products are placed.

As an example, one supplier described the five-year process it went through from first learning about a manufacturer's interest in commercializing a new technology for the mass market that previously appeared only on specialized products. The challenge was to produce the specialized technology at a price that made it practical for the high volume market. To this end, the supplier drew on its global functional resources – advanced engineering, procurement, and manufacturing -- each having a critical capability necessary to successfully commercialize the technology. While discussions between the supplier and customer regarding engineering and procurement were sometimes contentious, ultimately trust and mutual dependence drove the process. This case illustrates how both the OEM and supplier benefit from a close relationship through the entire revenue acquisition process: the OEM is able to introduce product-differentiating innovation into the mass market (increasing its volumes), the supplier is able to reduce contract risk (by spreading business over a larger number of customers), and both partners are able to focus on improving price and financial margins (by increasing quantity and potential pricing premiums).

A clear strategy that emerged from the panel is that suppliers are targeting customers – both vehicle manufacturers and system integrators – that value early involvement and offer a lower cost of doing business. Customer policies, procedures, and general behavior are forcing suppliers to re-prioritize where they allocate resources. It is generally agreed that customers with the most efficient and disciplined product development processes are also those that value a product's functionality and quality, as much as unit price. As this dual focus works its way from OEM through the supply chain, entire supply chains can lean toward product innovation and premium pricing, while keeping an eye on the need for low cost.

Suppliers spoke about many tactics they use to build early relationships during the concept and innovation phase to prioritize and work with their targeted customers.

- Suppliers are building internal mechanisms through formal systems and informal organizational structures to assure that customer and competitive intelligence is circulated through the organization. Useful knowledge can reside in many places and individuals within a company. Knowledge is typically divided by geography, customer account, physical facilities, organization (formally or informally) structure, and operational versus staff relationships. Suppliers must insure that useful knowledge is easily transferred among these knowledge centers to satisfy a particular customer need.

- Suppliers are budgeting resources specifically to foster new customer relationships. This spending is not for product development on a new program, nor is it fundamental research. Rather, it is money spent working on issues that will improve the next generation of a product, even though a specific request has not been made by an OEM. For instance, effort may go into issues of warranty reduction or enhancing a current design for easier assembly. The above two tactics can be implemented internally by a company without reference to the business processes of its customers.

- To improve the interface with customers, suppliers are creating internal, cross-functional teams that mirror their customer's organizational structure. However, this tactic is only as effective as the customer's own organization. Because Japanese OEMs have a disciplined and consistent product development process (with a strong emphasis on cross-functional teams), suppliers can successfully tailor their own internal processes and team structures to match those of their Japanese customers. Mirroring their customers, suppliers concept development teams are cross-functional and include every skill that is needed, from early design through production launch, to interface with customers. The result is a customer – supplier alignment in engineering, timing of product development stages, and resource allocation. Of course all of these tactics entail cost and must show a business case return.

Success Indicators

Success in the concept and innovation phase is particularly difficult to measure. One problem is that feedback loops are long. As the above supplier story noted, it can take up to five years from the time when an opportunity is recognized to the signing of a contract. Another problem in this early phase is that there are no commonly recognized milestones such as the freezing of a design or the issuance of an RFQ. Because of the difficulty of measuring success at this stage of the process, suppliers must have accounting and organizational systems that support the proper allocation of resources to these activities, ensuring that expenditures are commensurate with the lifetime value of the customer relationship.

Despite these problems, metrics can be identified. They may not be as clearly defined as we might like, but they can be observed, and they can serve as indicators of success or failure in this stage. For instance:

- Suppliers measure success by how well they understand their business environment and avoid unexpected surprises. For instance, understanding the implications of upcoming regulations may reduce the need for design rework. Or, successfully anticipating developments concerning customers' product lines or competitors' offerings can avoid having to revise marketing or design plans. Successful suppliers minimize surprises by tapping into market intelligence on product technology, manufacturing processes, materials, and financial benchmarks, through either their own surveys or third-party consultants.

- Success can also be indicated by how frequently a customer "shops" a supplier's program to competitors in order to achieve additional price concessions. If this is an infrequent occurrence, the supplier knows he is adequately protecting current business – or winning new business – through aggressive pricing, good quality, and market intelligence. This metric, however, illustrates the contextual dependency of measurement at this stage. Price "shopping" can be an indicator of a customer's policy to emphasize unit price as opposed to the overall value of a product. Other customers, who integrate the agendas of purchasing, engineering, finance, and manufacturing, are likely

to take a more value-based approach, thus decreasing the frequency of shopping business on a pure piece-price basis. Put another way, the metric "amount of shopping" must be calibrated to the "price versus value" emphasis of particular customers. With respect to customers who have only a piece-price orientation to their business there are few defenses a supplier can employ to combat constant market testing and potential loss of business.

Phase II: Pre-Quote Marketing

Revenue and Margin Management Constraints

One major concern is the wide range of vehicle manufacturer product development disciplines that the suppliers need to interface with. Suppliers have often entered into an attractive deal, only to see their customer's lack of timing discipline destroy profit margins through program delays, cancellations, or the need to expedite resources to complete projects. When this happens, suppliers often continue their involvement with the program – even though the long-term economics have gone bad because of the momentum of the program, the sunk costs, and the need to maintain good customer relationships. Once a contract is in place, customer consistency lowers the cost of doing business by minimizing unanticipated change in planning and scheduling. The Japanese manufacturers are characterized as being "slaves to the calendar." This discipline binds them to a consistent sequence of activities and information flows that lowers risk for suppliers.

Another significant difference between the domestic and Japanese firms is the high level of accuracy provided by Japanese firms into key program variables such as production volume estimates. Without this accuracy, suppliers must often accept overly optimistic volume estimates, which impacts capacity planning, supplier investment, tooling orders, piece price, and, of course, overall program profitability. Compounding this problem is that OEM buyers are in their jobs for only 18 to 36 months. Their short tenure does not allow time for a supplier to build a good enough relationship with the customer to be able to challenge and work through questionable assumptions. In addition, poor communication – in terms of frequency and quality – between the OEM engineering and purchasing organizations leads to suppliers receiving mixed signals about product designs and engineering, business case variables, and sourcing intent.

Supplier Strategies and Tactics

Suppliers mentioned several strategies to win more business with higher financial yields. One strategy is to monitor the competition's ability to service potential customers. Suppliers noted that many opportunities open up when the competition misses quality, delivery, or cost targets. Seizing these opportunities is a particularly good tactic in gaining entry to international firms that tend to nurture long-term relationships and have little supplier turnover. For this tactic to succeed, however, suppliers must execute flawlessly by bringing new designs, product innovations or process technologies to a new customer supported by a viable business case.

Another supplier strategy presented by a panelist to increase business through new customers or new products is to identify targeted customers' key engineers and executives who influence advanced engineering, and then, through these personal contacts, better understand the customers' needs. In addition, this company staged half-day, private product shows to display the supplier's technologies as an effective tactic to position the supplier as a preferred source. However, it was cautioned that such events often take well over a year to put in place and require careful planning. Each panelist stressed how important it was to do careful homework on the customer and the potential market. While some traditional markets are easy to understand

because of their familiarity, new markets such as telematics present unique challenges to suppliers because they are as yet undefined in size, scope and structure.

Many multi-system suppliers have an excellent opportunity to develop an internal "early warning" system by capitalizing on different lead times for different components. For example, certain systems, such as powertrain and body structures, have the longest lead times in the industry – 4 to 5 years – while other components of those systems or other discrete parts may have lead times of only 18 months. People working on long lead time items may discover valuable information that can be used by their colleagues who are working on shorter lead time products to enable the supplier to proactively respond to a market opportunity or reactively respond to minimize costs or risks.

As an example of how these decisions are made, two suppliers described their internal screening process wherein a small group of executives reviews all program initiations, and responds within 24 hours with a decision as to whether the company will pursue the business. The decision is accompanied by a written justification. This documentation is referred to post award if it becomes necessary to understand why the business was pursued or to justify additional resources that may be needed to make the program a success. As for the problem of OEMs overestimating volume projections, suppliers must be able to question customers' estimates, and be prepared to sit out an RFQ if the volume risk is too great. The ability to question RFQ volumes can come through a group process as described above (which assumes the greatest collective corporate knowledge to pull the best information out of the customer) or through tapping into the collective wisdom of the consulting firms providing industry competitive intelligence and production forecasting.

Success Indicators

In its basic form, Phase II success is measured by the number of increased supplier bidding opportunities and a higher win rate of desirable business. An important metric of desireability is how successfully sales executives move their companies' book of business toward lower cost-of-service customers, and toward customers (OEMs or systems integrators) that require lower service levels. Overall, the key indicator is how well a supplier can evaluate new business opportunities, filter out the weak ones, and go after only the production contracts that present the best business case.

Phase III: Request for Quotation and Quoting

Revenue and Margin Management Constraints

As noted above, some OEMs freeze designs earlier in the product development cycle than others. Timing of the "freeze point" affects the cost and accuracy of the quoting process. Quoting to a specific design is relatively straightforward. However, if project creep, Job One date, and production volume assumptions change; then material, labor, and capital requirements are not only more costly to estimate, but those estimates are likely to be less accurate. Several suppliers also mentioned the noticeable variability in the domestic OEMs' engineering skill base that is adding time and cost to the suppliers' product development budget.

Perhaps the most significant constraint is that OEMs use the quoting process for different purposes. Some use the process primarily to make new business awards. Other use RFQs for market testing to drive prices lower. In addition, other priorities can complicate negotiations. For example, an OEM may source a program to a supplier with unionized operations in return for leverage with unions in its own assembly plants. Or, purchasing staffs may have to fulfill

minority purchasing quotas which can complicate the primary objective of sourcing to minimize cost while improving quality and delivery.

Supplier Strategies and Tactics
Suppliers must have the internal discipline to exit a particular program, or even an entire customer, if the business case dissolves over the course of RFQ negotiations or during post-award price-down negotiations. Every supplier generally agrees that Honda and Toyota are easier to do business with because these companies execute their product development process against a strict calendar, and because they transfer more information to their suppliers throughout the entire RFQ process. In addition, the product and financial information that is exchanged between the Japanese OEM and the supplier is more accurate, thus making it easier for a supplier to judge whether a potential piece of business is attractive. One supplier noted that his company developed a specific market strategy for each customer – including an exit strategy if it were determined that price give-backs would reduce financial returns below a threshold amount.

To successfully design and engineer components and systems, and to control costs, suppliers must have technical understanding not only of their own products, but also of the systems into which their product fits. As one supplier stated "If you're selling components, you better know something about the system that the component is interfacing with. If you're in a subsystem, you better know the entire system." Knowledge of a system's detailed vehicle interfaces helps a supplier prepare for any changes that happen at the system level. Without this knowledge, a supplier would be unable to react to a surprise change or to guide changes in the system to benefit both supplier and customer. Further, by understanding the overall system, suppliers can recognize opportunities to add value through part consolidation or design simplification and by so doing, reduce cost and build customer trust.

In addition to internal discipline, and knowledge of the supplier's component context, suppliers must deal with a high degree of variation among OEM skill levels in engineering, purchasing, and manufacturing. Because of this variation, our panelists agreed that supplier technical capabilities must improve to allow suppliers to deal with multiple OEMs at different levels without internal or external confusion and excessive difficulties.

Success Indicators
The overall supplier success indicator in Phase III is performance to business plan – that is, is the company moving its forward book of business toward its most desirable customers and product portfolios? While it may not completely assure meeting business plan targets, movement towards the desired customer and product mix will certainly improve a company's probability of meeting or exceeding their overall business plan. Performance criteria for phase III include:

- *Increased return on invested capital.* ROIC should be increasing as less profitable programs are replaced with programs having better margin. This requires companies to estimate their costs accurately.

- *Improvement in RFQ process measures*. These include meeting deadlines, turnaround time, RFQ response cost, reduction of submission errors, inclusion of historical cost data, collaboration with external sources, and the win rate on targeted business.

- *Decreased Requotes*. The number (or percent) of existing contracts that are re-quoted before a production contract ends. This metric should decrease as supplier – customer relations shift toward a longer-term, total value, emphasis.

- *Increased ability to say "no thanks."* A number of times the outcome of a business case analysis is to say "no" to bidding on RFQs that do not represent a good business case or acceptable financial returns – and actually doing it.

Phase IV: Award and Post-Launch

Revenue and Margin Management Constraints

Once again, various manufacturer-supplier relationship issues dominated the suppliers' perception of the major Phase IV constraints over increasing revenue and financial margins. The most significant and often mentioned issue in this phase is the increased risk to supplier returns due to uncertainty over price-down requests and re-bidding of business. Over the past decade, domestic OEMs have introduced contract risk by openly telling suppliers that they will re-bid as much as 33% of their business every year. Some OEMs use ECNs and price-down requests after launch to manage the product toward original cost targets without regard to actual engineering effort. This post-launch approach causes problems for suppliers because their costs are determined prior to Job One. Suppliers are asked to make consequential changes after the largest window of opportunity to do so has closed. As noted above, Phase IV is also complicated by the fact that domestic OEMs often change product designs materially just prior to Job One, making it difficult for suppliers to track and negotiate prices for all changes.

Another problem is that a vehicle manufacturer's capability to work with a supplier to reduce costs varies significantly from OEM to OEM, and even from platform to platform within a single OEM. As a result, suppliers cannot accurately plan the response to price reduction requests. Additionally, suppliers cannot always use the proven methods of price reduction that they have implemented with other OEMs or platforms. As with so many other issues highlighted by our discussions, this problem is predominantly characteristic of domestic manufacturers.

Supplier Strategies and Tactics

Suppliers have already reduced labor costs by moving production to lower wage locations. Some suppliers report that they have pushed this tactic about as far as they can. For further improvement, the industry must focus on productivity improvements and cost reductions to meet price-down demands. Suppliers understand and appreciate the pressure to reduce costs. It is the methods used by OEMs that they find problematic. What most vexes suppliers is that price-down timetables do not match the reality of how fast cost reductions can occur due to constraints such as labor and material contracts. Again, the approach used by domestic and Japanese OEMs differs.

Figure 3 illustrates the difference. Within a product generation; Japanese OEMs make many incremental design changes to parts, and negotiate price-downs based on each new part. Given that there is opportunity for material and process change with each part modification, a supplier has a greater number of cost-reduction opportunities. Therefore, margins are generally protected as costs are adjusted along with price changes.

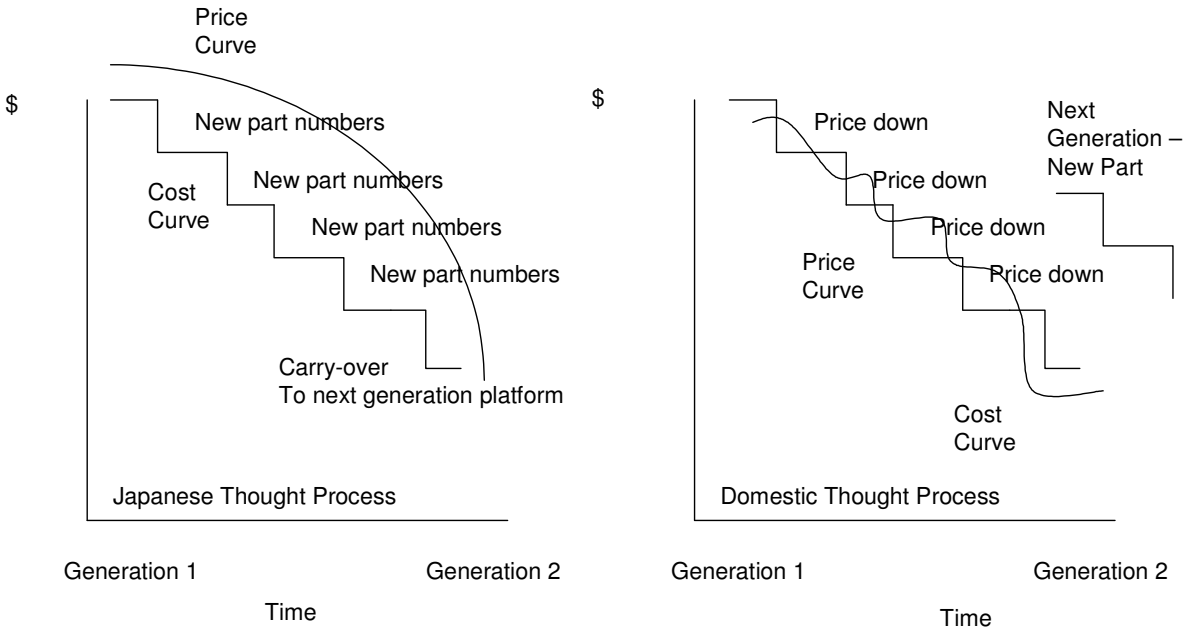

Figure 3

Japanese and Domestic Price Reduction Strategies

The domestic approach is to make minimal design changes on individual parts within a vehicle generation, but to continually push for price reductions on those existing parts. Because the part redesigns are limited within a vehicle lifecycle, cost reduction opportunities are limited as well. The result is that domestic-manufacturer price downs are more likely to come out of a supplier's profit margin than out of productivity improvements or design enhancements.

Suppliers that are vertically integrated may have an advantage of more precisely knowing and controlling their costs and are more likely to have engineering skills to better succeed in meeting a price-down program through productivity and cost reductions versus margin compression. As the result, suppliers are carefully managing outsourcing to achieve a level of vertical integration that allows them to allocate resources to address cost structures and productivity in order to reach price-down targets. A complication is that OEMs have varying levels of system and component engineering skills, thus causing suppliers to commit different levels of resources to achieve cost reductions. As one supplier stated, "It takes a greater amount of my engineering resources to get 5% out of a typical domestic OEM's program than out of a foreign manufacturer's program."

Finally, suppliers are working at achieving continual communication with their customers to substantiate the value of their products and services. There are also efforts to go beyond communication and to exercise bargaining power. Companies with innovative technology or other competitive advantages are willing to push back against requests for price reductions, and occasionally OEMs do respond favorably. As one panelist put it, "You have to be able to let them know the point at which you are willing to walk away from the business. When we have done that, there sometimes is a change in attitude."

Success Indicators
The ultimate success indicator is meeting projected return on invested capital (ROIC). While ROIC is dependent on many factors, one important contributor is certainly the value of price-downs over a program's life that are attributable to cost reduction from product and process improvement, versus margin compression. Related to this ability is a company's capacity to bring a cross-functional perspective to product and process improvement. Thus a useful metric is the extent of horizontal integration across purchasing, engineering, manufacturing, and finance.

Integrating the objective of migrating customer portfolios toward lower cost of business companies, with the practice of continually improving components through the life of a program, creates another success indicator: the turnover rate of new part numbers within a vehicle program in a supplier's product portfolio. If cost reduction comes mainly through the redesign of parts and systems, then suppliers open up more opportunities to reduce their cost structures the greater the percentage of revenues that are based off of recently introduced part numbers

Another significant contributor to ROIC is how accurately costs are predicted over the course of a program. As one supplier noted, "You have no guarantee that you will recover your investment. It is a question of the experience of your people, the strength of your product, and your negotiation skills." However, if the expected ROIC of a program goes negative because of the supplier's miscalculations, customer expectations, or a change in the business environment, an equally important metric might be the ability to minimize losses on the current program without jeopardizing future business opportunities.

Finally, an important indicator is whether or not a program remains with a supplier for its entire production run. This is an important indicator of how well a supplier manages its post-award requirements.

Summary
Managing the revenue and margin lifecycle is a critical strategic focus for leading automotive suppliers looking for strategies beyond cost cutting to improve their financial performance. A well-managed RAM process can have a dramatic and positive impact on revenue and financial margins by freeing up precious marketing and engineering resources to better understand the market and its customers and bring product innovation and process efficiencies to commercialization.