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Automotive Suppliers and the Revenue Acquisition Process:

What's Working, and What's Not?

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A Study Conducted for: **SALION**

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WHAT'S WORKING, AND WHAT'S NOT?**

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TABLE OF CONTENTS

List of Tables	vii
List of Figures	vii
About the Authors	ix
Acknowledgements	x
Summary	xi
Introduction	1
Description of the Study	1
Findings	2
Life Cycle Activities	2
Priority Setting	2
Bid Development	3
Award/Post-award Activity	5
Information in Support of Revenue Acquisition	6
Cost and Revenue Implications	9
Appendix 1	11

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LIST OF TABLES

Table 1: Pre-RFQ sales opportunities – Priority Setting	2
Table 2: Quoting new business – Priority Setting	2
Table 3: Re-quoting current business – Priority Setting	2
Table 4: Quoting ECNs on current business – Priority Setting	2
Table 5: Cycle time for RFQ processing	3
Table 6: Approximate number hours invested in RFQ response	4
Table 7: Reasons for problems in bid development	5
Table 8: Confidence in ability to meet revenue and margin goals	5
Table 9: Expected change in number of RFQs	5
Table 10: Hit rate on RFQs	5
Table 11: RFQ Success Analysis	6
Table 12: Use of historical data	6
Table 13: Information available in company for managing revenue acquisition	7
Table 14: Advantages and disadvantages of third-party industry-standard systems	8
Table 15: Percent variation estimated vs. actual in RFQ costing models	8
Table 16: Interaction with suppliers in support of RFQ development	8
Table 17: Results of RFQ financial models	10

LIST OF FIGURES

Figure 1: Number of RFQs per year	3
Figure 2: Number of New Business RFQs	4
Figure 3: Number of Requoting RFQs	4
Figure 4: Number of ECNs	4

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SUMMARY

The Revenue Acquisition (RA) Process is the core business process by which a company drives its product portfolio – what new business it acquires, what products it drops, and how prices are set. To work well, the RA process must involve collaboration among many diverse activities – sales, finance, engineering, estimating, manufacturing purchasing and executive oversight. As practiced today, RA is labor intensive, error prone, and hobbled by poor information. This inefficiency exists in a context of intense business pressure coming from mergers and acquisitions, staff turnover, online auctions, globalization, staff cutbacks, and OEM-forced price reductions. The impact of these factors is exacerbated by disparate, incompatible IT systems. Patchwork systems, whether paper-based or digital, are no longer sufficient to give suppliers what they need, i.e. a RA process that will ensure:

- Greater global visibility into customer opportunities
- Faster response to more RFQs
- Greater accuracy of variable and fixed cost estimation
- Higher win/loss percentage on more profitable business
- Better transitioning from “component” to full “systems” capabilities
- Increased responsiveness to customers

While problems with RA in the automotive supplier sector are generally acknowledged, there is little hard information on how the process is actually working. Most agree the model is broken. Precisely how broken, and in what ways, is not known. To help build a foundation for constructive change, the Center for Automotive Research at Altarum conducted a quantitative study of the RA process as practiced by automotive suppliers.

The research proceeded in two phases. The first was a survey of 1st and 2nd tier automotive suppliers. The intention was to determine the current state of suppliers’ RA practices, to provide guidance on process improvement, and to offer a glimpse of the consequences of change. The second phase combined the survey data with industry information to construct economic models of the cost and revenue benefits of improving the RA process.

The RA process is principally characterized by a large number of time-consuming requests for quotations (RFQ). Respondents’ companies see an average of 495 RFQs per year, each requiring an average of 134 hours of labor effort. Respondents expect the number of RFQs they receive to increase by about 28% over the next few years.

The information environment that supports RFQ activity is characterized by large volumes of information, but by information that is often neither accurate nor widely available throughout the organization. Costing models typically show a 25% variation between estimates and actuals. Post-award analyses of performance are common both upon notification of a win or loss, as well as after project launch to check on post-production performance as compared to assumptions made during bid preparation.

Historical data relating to the RA process, while often available, are not used systematically. Deliberate use of that data is made in more than 90% of the cases, but there are few criteria for systematically using that information to understand what happened and why. (Those criteria exist in only 30-40% of the respondents' companies.) Even if such criteria were established, rigorous use of information would be difficult because while much useful information does exist, it is not centrally located nor easily accessible by staff members who need it.

With few exceptions, useful databases are available in over 70% of the cases for a very wide range of information. However, those databases tend to be local and have limited executive access. Ratings on "visibility throughout the company" seldom go above 40%.

One consequence of this information context is respondents' low confidence that their companies will meet revenue and margin goals. About 45% of the respondents have less than 75% confidence that their companies will meet those goals, and 20% have less than 50% confidence. Missed deadlines are common. Nearly 24% miss the customer's initial submission deadline costing large suppliers an estimated \$3.5 billion in lost opportunity sales. Furthermore, the "hit rate" for new business is 25%.

The Revenue Acquisition model developed as part of this research reveals that even minor improvements in the RA process would make substantial contributions to a supplier's bottom line. Taking labor rates and RFQ value into account, modest improvement in these rates will have substantial revenue implications. For large suppliers, a 2% win rate improvement would result in a 5.7% increase in company revenue or \$270 million. For small companies, a 2% improvement in the hit rate would result in a 9.5% increase in company revenue, equaling \$17 million.

INTRODUCTION

The Revenue Acquisition (RA) process is the core business process by which a company drives its product portfolio – and its top and bottom line. RA determines what new business a company acquires, what products it drops, how prices are set and what profit margins it hopes to realize. As with all core business processes, RA has a life cycle which in this case consists of priority setting, bid development, and award/post-award activity. This study provides a quantitative view of how automotive suppliers are executing and managing this process.

The intention was to determine the current state of affairs, to provide guidance on process management and improvement, and to offer a glimpse of the extraordinary consequences of positive change in this area.

Today the automotive industry is characterized by robust sales and lagging profits, surely a symptom of a broken business model. This study documents how failure to effectively and efficiently manage the RA process is contributing to the problem. This report shows that cost models are often inaccurate, deadlines are often missed, and that both profits and revenues are suffering. Large and small companies are equally affected.¹ No company is immune.

DESCRIPTION OF THE STUDY

The survey used to gather data for this report was designed by CAR, with additional insight and expertise provided by Salion, Inc., Hedge & Company Public Relations, and PwC Consulting. Topics covered include a respondent profile, RFQ prioritizing criteria, RFQ workload, details on RFQ processing, the use of historical data, delays and inaccuracy in formulating bids, post mortems, and industry exchanges. The survey was deployed during July and August, 2002. Sixty-one responses were received.

The sample was comprised primarily of upper and mid-level automotive component supplier firms. Respondents indicated a variety of titles, with a significant portion involved in sales and marketing activities. The sample was drawn primarily from the database maintained by Altarum's Center for Automotive Research.

Respondents were asked to respond either for their company as a whole or for their specific division, depending on which they were most knowledgeable about. Mean sales for responding firms in 2001 were \$1.6 billion, with about 28% of the respondents reporting sales over \$1 billion.

Survey data was augmented by public sources of information from the Bureau of Labor Statistics, and from previous studies done by CAR.

¹ This finding is corroborated by many statistical tests performed on throughout the data set.

FINDINGS

This section is organized in three sections: First, data is presented on companies' actions at each stage of the bid process. Second, data is provided on how companies use information to support activities across the life cycle. Finally, financial models are presented, which estimate the cost and revenue implications of an inefficient Revenue Acquisition process.

LIFE CYCLE ACTIVITIES

PRIORITY SETTING

Companies were queried about factors which govern their decisions relating to four activities: pre-request for quotation (RFQ) opportunity management, quoting new business, re-quoting current business, and quoting engineering changes (EC) on current business. Criteria used for assessing these opportunities were rated on a three-point scale: 3= very important, 2= important, and 1= minor concern. Tables 1-4 summarize these findings.

Table 1: Pre-RFQ Sales Opportunities – Priority Setting	
<i>What criteria do you use for prioritizing sales and RFQ activities?</i>	
Revenue size of contract	2.6
Operating profit margin	2.5
Link to capacity utilization	2.2
Customer goodwill	2.2
FIFO of RFQ/opportunity	1.4

Table 2: Quoting New Business – Priority Setting	
<i>What criteria do you use for prioritizing sales and RFQ activities?</i>	
Revenue size of contract	2.6
Operating profit margin	2.6
Link to capacity utilization	2.4
Customer goodwill	2.3
FIFO of RFQ/opportunity	1.7

Table 3: Re-Quoting Current Business – Priority Setting	
<i>What criteria do you use for prioritizing sales and RFQ activities?</i>	
Operating profit margin	2.6
Revenue size of contract	2.5
Customer goodwill	2.3
Link to capacity utilization	2.3
FIFO of RFQ/opportunity	1.6

Table 4: Quoting ECNs On Current Business– Priority Setting	
<i>What criteria do you use for prioritizing sales and RFQ activities?</i>	
Operating profit margin	2.5
Customer goodwill	2.2
Revenue size of contract	2.0
Link to capacity utilization	1.8
FIFO of RFQ/opportunity	1.7

The prioritization pattern is consistent across each of the four RA activities, with revenue size of contract and operating profit margin generally ranked either number one or number two. Capacity utilization and customer goodwill are in the middle ranks, and FIFO (first in

first out) is always last. Another way to look at this finding is that money is the first concern, but other company goals are also important, and everyone is wise enough to eschew priorities based on time of arrival.

In addition to these average priority rankings, there is a pattern of interrelationships among the scores. People who ranked revenue size as high (or low), also tended to rank operating profit margin as high (or low). A similar pattern was found for customer goodwill, and FIFO processing.² Capacity utilization stands on its own. It appears as if respondents see three “dimensions” to RFQ priority setting: the first is a focus on dollars; the second is an external view, focusing on the customer. (If customer goodwill is important, so too would be servicing a request as soon as possible after it arrives.) The third dimension, capacity utilization, represents a focus on internal operations.

BID DEVELOPMENT

On average, respondents reported that their companies processed 495 RFQs per year or about 1.9 per workday.³ However, this figure is subject to very large variation among companies, with only a few companies handling very high numbers of RFQs per year. Despite this wide range, the RFQ workload is considerable for most companies. A majority of the companies in the sample handle between 200 and 600 RFQs per year. See Figure 1 for a graphic view of these findings.

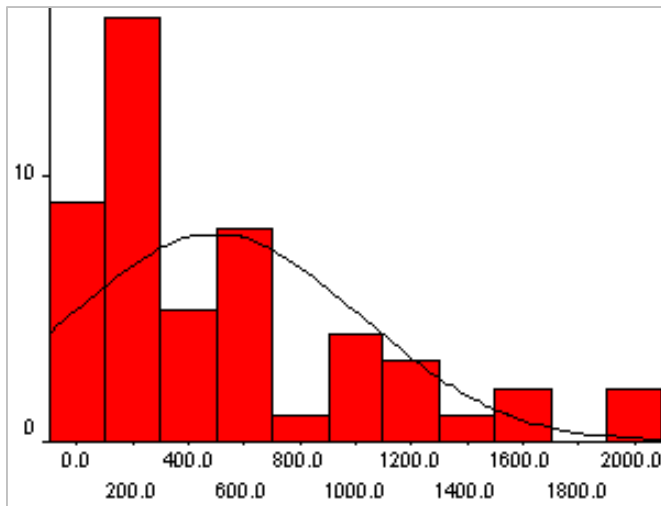


Figure 1: Number of RFQS Per Year

Table 5: Cycle Time For RFQ Processing (Days)

	Typical	Shortest I can remember	Longest I can remember
Quoting new business	14.1	3.2	50.4
Re-quoting current business	10.7	2.7	30.5
ECNs	10.1	2.2	34.5

Typical cycle time for processing these RFQs is in the order of weeks, as shown in Table 5. The pattern is consistent for both “typical cases” and cases describing the “longest I can remember”. RFQs for new business are considerably more time consuming than processing RFQs for either re-quoting current business, or quoting an ECN. As with the

² Pearson product moment correlations: revenue with margin = .434, P<.01. FIFO with good will r = .372, P<.01.

³ Based on 260 workdays per year. This is a typical figure that will vary somewhat from company to company.

number of RFQs, these figures are skewed by a few companies with a very large number of transactions. Figures 2, 3, and 4 show the distributions.

Figure 2: Number of New Business RFQs

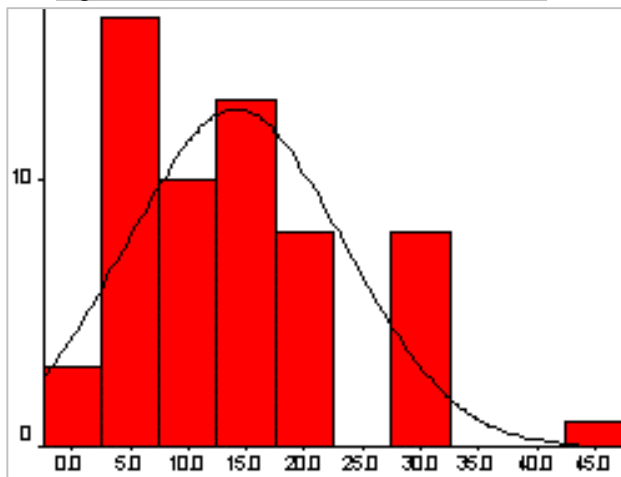


Figure 3: Number of Requoting Business RFQs

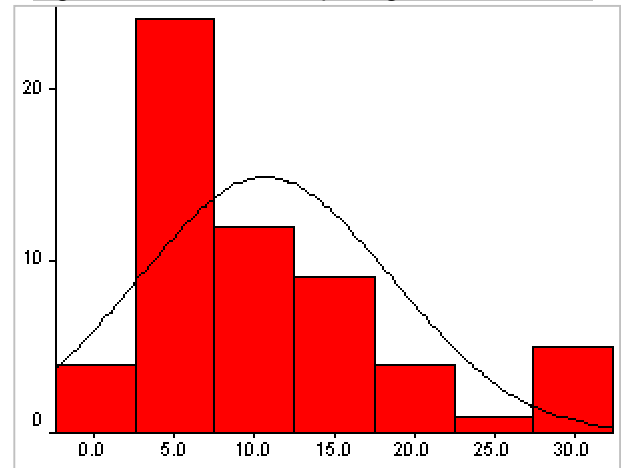


Figure 4: Number of ECNs

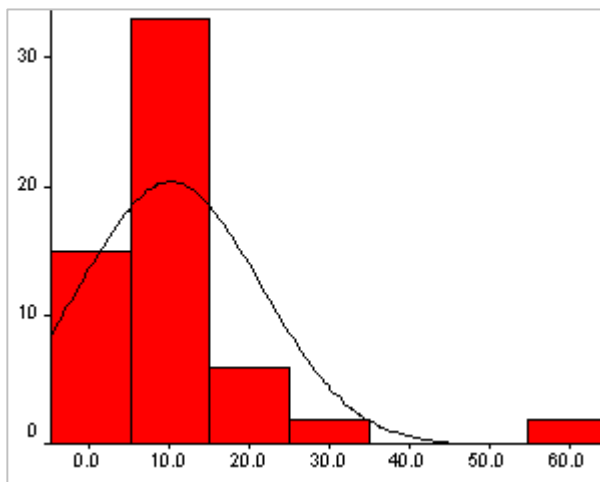


Table 6: Approximate Number Hours Invested Per RFQ Response

	hours
Sales and marketing	44.9
Finance	30.8
Product design engineering	28.3
Manufacturing engineering	9.0
Purchasing	8.5
Plant operations	7.6
IT	4.9

Labor effort during this cycle time can be considerable, ranging from 45 hours for Sales and Marketing personnel, to five hours for IT personnel. Besides Sales and Marketing, the most heavily involved groups are: Finance (31 hours/RFQ), and Design Engineering (28 hours/RFQ). Table 6 provides specifics for these and other participants in RFQ development.

Respondents judged a long list of potential difficulties in managing Revenue Acquisition. While most were rated above two on a three-point scale of difficulty (3= major problem, 2 = minor problem, 1 = minimal concern), no single issue stands out as an egregious problem. It is noteworthy, however, that respondents see their RFQ processes as *inefficient*. The most highly-rated problem is missed internal deadlines, with getting the right people to devote time a close second. These findings are summarized in Table 7.

Lack of efficiency in the Revenue Acquisition process is reflected in respondents' expectations about their company's ability to meet revenue goals. Forty-four percent of the respondents had less than 75% confidence that these goals would be met over the next two years, and 20% had less than 50% confidence. These findings are summarized in Table 8.

The difficulties highlighted in Tables 5 - 8 are clearly reflected in a critical measure of bid preparation efficiency. Twenty-four percent of RFQ opportunities miss customers' initial submission deadline.

Without process improvements, the poor level of efficiency indicated in these tables may become an even larger problem as respondents expect RFQ volumes to increase. Their expectation is for an average 28% increase across all three types of RFQs as shown in Table 9.

AWARD/POST-AWARD ACTIVITY

RFQ success rates vary over a wide range depending on whether a company is bidding for new business, re-bidding existing business, or quoting an ECN. As expected, new business is far less certain than either re-quoting current business, or quoting an ECN. See Table 10.

Table 7: Reasons For Problems In Bid Development

Missed internal deadlines, lack of ability to manage tasks	2.4*
Getting right people to devote sufficient time, lack of ability to manage tasks deadlines	2.3
Collaboration with suppliers	2.1
Errors requiring rework during the RFQ process, to inaccurate analysis	2.1
Collaboration with your customer	2.0
Errors resulting in inaccurate pricing submitted to customer, to inaccurate analysis	2.0
Collaboration within your company	2.0
Access to relevant historical data	1.7

* 3 = major problem, 2 = minor problem, 1 = minimal concern

Table 8: Confidence In Ability To Meet Revenue And Margin Goals

Confidence Level	% Respondents
1% - 10%	3%
11% - 25%	2%
26% - 50%	15%
51% - 75%	25%
76% - 90%	43%
91% - 100%	13%

Table 9: Expected Change In Number Of RFQS

	% increase*
New business	27%
Re-quote old business	29%
ECN	28%

* Some respondents expected decreases, but all average responses were positive.

Table 10: Success Rate on RFQs

Quoting new business	25%
Re-quoting current business	68%
ECNs on current business	80%

Companies care about understanding the reasons for their performance. This matter was addressed by asking about two types of post-award checks. The first, reasons for winning or losing a bid; and the second, whether executing a contract met the expectations that were anticipated during bid preparation. Respondents were then asked if these analyses were carried out, and if they were, whether or not they were performed on a systematic basis. Post-award analyses, done on a systematic basis, are carried out in more than 70% of the respondents' companies. See Table 11.

Table 11: RFQ Success Analysis		
	On win / loss notification from customer	Post-launch check on bid accuracy
% RFQs on which analysis is done	75%	71%
<i>If yes, how often are these functions involved?</i>		
<i>Sales and marketing</i>	98%	87%
<i>Finance</i>	60%	78%
<i>Purchasing</i>	42%	61%
<i>Plant operations</i>	71%	78%
<i>Manufacturing engineering</i>	69%	70%
<i>IT</i>	4%	11%
<i>Product design engineering</i>	81%	69%
Is it policy and/or accepted practice to conduct these analyses?	77%	70%

INFORMATION IN SUPPORT OF REVENUE ACQUISITION

Manufacturing companies accumulate a vast amount of information on topics such as bid history, production, and costing. The question is whether, and how, this information is exploited in support of the Revenue Acquisition process. The overall picture that emerges is one of poor information use, resulting in inaccurate costing models.

Historical data are used very heavily for all kinds of RFQ activity, although less so for pre-RFQ opportunity management. That use, however, is not particularly systematic. One aspect of this conclusion can be seen in how information is used for different kinds of Revenue Acquisition activity (summarized in Table 12). Respondents were asked about two aspects of data use with respect to these activities: a) rigor (little or no scrutiny vs. deliberate consideration), and b) frequency of use (occasional vs. set schedule). Percentages reporting deliberate use of information are consistently above 90%. The very highest use of information on a systematic basis, however, is only 43% (for ECNs).

Table 12: Use of Historical Data		
	% reporting	
	Deliberate use in RFQ process	Set criteria exist for use in RFQ process
Pre-RFQ sales	58%	28%
Quoting new business	90%	30%
Re-quote current business	97%	37%
ECNs on current business	91%	43%

A follow-up question dealt with the kind of information that is used for RFQ development. The survey assessed whether databases were available, and if so, the extent of their accessibility and visibility throughout the company. As a general rule, large volumes of useful data does exist, but its availability within the company is limited.

Almost all types of data are available in 60% or more of the automotive supplier companies. Despite the existence of useful databases their contents are not widely available. In contrast to the high percentages reported for the existence of databases, most company visibility ratings are below 40%. The contrast between the high “database existence” ratings and the low database visibility scores is highlighted in Table 13.

A glaring exception to the finding about the existence of information is the case of resources for managing Revenue Acquisition, i.e. time, money, and people. For these, reported percentages for database existence drops into the 35% - 50% range. This may be one of the reasons why respondents reported earlier (Table 7) that their biggest problems were missed internal deadlines and getting the right people to work on bids.

Database visibility as treated above, is a function of the information infrastructure within a company, i.e. the networking, computing, and application matrix in which information is embedded. Another element of infrastructure is the system that carries information across company internal boundaries and externally to its customers and suppliers.

Traditionally, each company develops its own infrastructure with its own trading partners. Recent years, however, have witnessed much talk of industry-wide common portals to serve as a common infrastructure. A series of questions was asked to get a sense of whether the industry will move toward a common system. The questions were designed to determine whether respondents saw industry-wide common systems as an advantage or a disadvantage with respect to their RA process. Table 14 presents respondents’ answers to these questions.

Table 13: Information Available in Company For Managing Revenue Acquisition

	% reporting	
	Database available	Data visible throughout company
Pre-RFQ sales opportunity development		
Status of pre-sales opportunity efforts	60%	26%
Resources devoted to pre-sales opportunities	48%	28%
Requests for Quotations		
Production process cost	85%	40%
Status log on active RFQs	83%	42%
Production forecasts	82%	54%
Bill of materials	80%	55%
Assumptions which underlie cost estimates	77%	29%
Technical product data	73%	48%
History of past RFQ performance	61%	25%
Staff availability to work on RFQ	47%	38%
Resources devoted to RFQs (time, money)	37%	38%

Clearly, industry-wide third-party common systems are seen as problematic, with 75% of respondents concerned about security and 73% concerned about cost.

	Major Disadvantage*	Major Advantage**
Security – assure data confidentiality	75%	37%
Cost – membership, development, maintenance	73%	20%
Integration of RFQ process with your customers	57%	36%
Assuring fit with your RFQ process	56%	26%
Integration of RFQ process with your suppliers	48%	32%

* % of those reporting issue as a disadvantage
 ** % of those reporting issue as an advantage

Direct labor	25%
Direct materials	25%
Overhead	26%
Tooling	28%
Cost of capital	24%
Margin calculations	24%

Perhaps because information is not well used, costing models for RFQs show a high degree of inaccuracy. Typical percentage variation between actual and estimated costs, hovers around 25%, against “best I can hope for”

variance of three to five percent. (See Table 15.) Also, respondents’ estimates of their costing models’ accuracy are highly correlated.⁴ It is not as if some models work well and some don’t. Rather, either all are working well or all are working poorly.

Collaboration with suppliers represents a set of moderate, but connected problems. Difficulty ratings for five separate aspects of supplier interaction range only between 1.6 and 2.1 on our three-point rating scale (3 = major problem). See Table 16 for details. However, these rankings are richly correlated.⁵ If a respondent saw one type of supplier interaction as problematic, he or she was likely to see the others as problematic.

	Problem Rating*
Cycle time to get needed information	2.12
Ability to monitor deadlines for receipt of information	1.92
My ability to provide suppliers with information they need	1.78
Accuracy of information received	1.68
Back and forth collaboration	1.62

3 = major problem, 2 = minor problem, 1 = minimal concern

⁴ Correlation coefficients among the rankings are all above .90, and statistically significant at P<.01.

⁵ Ten 1:1 correlations are possible among the five different problems. Eight are statistically significant at P<.01. The two exceptions are: “my ability to provide additional information” with: 1- “cycle time to get needed information”, and 2- “back and forth collaboration with suppliers”.

COST AND REVENUE IMPLICATIONS

The two previous sections provide information on how the revenue acquisition process is functioning. In this section, data was combined with data from outside sources to construct models to determine the financial implications of improving the status quo.

Survey data elements:

- Labor hours for RFQ development
- Win percentages
- % RFQs: new, re-quote old business, EC
- Company size
- Company revenue
- Success rate for RFQs
- Missed deadline percentage
- Accuracy of cost models

Outside data sources

- Wage rates from the Bureau of Labor Statistics
- Expert opinion for “reality checking”

By combining this information, separate models were constructed for four different conditions: new business RFQs at large and small companies; and a combination of quoting existing business and ECN RFQs at large and small companies (large companies are those with sales greater than \$1 billion while small have sales under \$1 billion). The findings are presented in Table 17. Key results include:

- For large suppliers, the average cost of a new business RFQ is \$61.4 thousand vs. \$22.4 thousand for the smaller firms.
- The average new business RFQ is worth \$55 million of revenue for large suppliers and \$2.0 million for small.
- An improvement of only 2% in the win rate would result in a combined 5.7% increase in revenue or \$270 million for large suppliers, and a 9.5% increase or \$17 million in revenue for small.

Output of the models indicate that for any given company, a more effective and efficient RA process would help automotive suppliers by increasing business, boosting margins and profits, and providing more time for value-added engineering.

In short, optimizing the core business process of Revenue Acquisition will go far to resolve the costly pains that suppliers feel today. Some of the benefits would include:

- Higher win rates by identifying and committing resources to the most winnable business
- Increased response capacity resulting from overall process improvement and resource efficiency
- Increased gross margin and profits through error reduction and commercialization of all ECNs

- Faster response time and more executive oversight resulting from the elimination of costly process delays
- Improved customer satisfaction

Table 17: Results Of RFQ Financial Models (Appendix 1 contains details of how these findings were derived.)

	Cost	Revenue
Large companies Requoting existing business RFQs and ECNs	<ul style="list-style-type: none"> ➤ Average cost of an RFQ = \$8.2K 	<ul style="list-style-type: none"> ➤ Average revenue per RFQ = \$13.4 million ➤ 2% improvement in win rate = 5.4% increase in company revenue or \$76 million ➤ Late bids account for \$1 billion of missed sales opportunities ➤ Cost model inaccuracy results in \$500 million of combined over and under estimation
New business RFQs	<ul style="list-style-type: none"> ➤ Average cost of an RFQ = \$61.4K ➤ Annual per-company RFQ spending = \$11 million 	<ul style="list-style-type: none"> ➤ Average revenue per RFQ = \$55 million ➤ 2% improvement in win rate = 5.7% increase in company revenue of \$190 million ➤ Late bids account for \$2.4 billion of missed sales opportunities ➤ Cost model inaccuracy results in \$1 billion of combined over and under estimation
Small companies Requoting existing business RFQs and ECNs	<ul style="list-style-type: none"> ➤ Average cost of an RFQ = \$3.9K 	<ul style="list-style-type: none"> ➤ Average revenue per RFQ = \$1.2 million ➤ 2% improvement in win rate = 9.3% increase in company revenue or \$4.9 million ➤ Late bids account for \$57 million of missed sales opportunities ➤ Cost model inaccuracy results in \$12 million of combined over and under estimation
New business RFQs	<ul style="list-style-type: none"> ➤ Average cost of an RFQ = \$22.4K ➤ Annual per-company RFQ spending = \$6.8 million 	<ul style="list-style-type: none"> ➤ Average revenue per RFQ = \$2 million ➤ 2% improvement in win rate = 6.6% increase in company revenue or \$12 million ➤ Late bids account for \$136 million of missed sales opportunities ➤ Cost model inaccuracy results in \$28 million of combined over and under estimation

APPENDIX 1

Detailed derivations of the findings provided in Table 17 in the Cost and Revenue Implications section of the report are provided below. Where applicable, the findings used were those reported by either large or small responding firms. Likewise, the derivations of the findings presented for new business vs. all RFQs used responses specifically pertaining to new business RFQs or those for all RFQs, respectively.

The average cost of an RFQ was derived by assigning labor rates to the number of hours respondents reported to devote to RFQ processing. The hours reported were multiplied by wage rates from the U.S. Department of Labor, Bureau of Labor Statistics 2001 National Wage Survey for the Detroit, Flint, and Ann Arbor, Michigan area. The areas of Sales and Marketing, Manufacturing Engineering, and Design Engineering were then increased by 15% - 20% to bring them in line with the expenses reported by automotive firms. The resulting number of hours for each corporate function was then summed to obtain a company salary total. A fringe rate of 45% was then applied, as well as an overhead rate of 100% for large firms and 75% for small.

Annual RFQ spending by company was obtained by multiplying the average cost of an RFQ by the average number of RFQs reported.

Average Revenue per RFQ was obtained by dividing the mean sales reported by the mean number of RFQs reported.

The increase in company revenue as a result of a 2% increase in RFQ win rate was derived by adding 2% to the mean reported win rate and applying the resulting rate to the mean number of RFQs reported. The resulting new number of RFQs won was multiplied by the average revenue per RFQ to obtain company revenues. The difference between the resulting company revenues and the reported mean company revenues was divided by the mean reported company revenues to obtain the percent change. In computing this number for RFQs pertaining to new business, only the data reported for new business RFQs was used.

The potential revenue lost to missed sales opportunities due to late bid submission was derived by multiplying the mean percentage of RFQs submitted past deadline by the total number of RFQs. The resulting number of late RFQs was multiplied by the average revenues per RFQ to obtain the potential revenue lost to missed sales opportunities due to late bid submission.

The combined bid over and under estimation was derived by multiplying the mean percentage of deviation of actuals from estimates by the average value of an RFQ. The result was multiplied by the mean number of RFQs to obtain the combined bid over and under estimation.