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# HOW GOOD ARE MANAGERS AT EVALUATING SALES PROBLEMS?

Bryan Lilly, Thomas W. Porter, and A. William Meo

This study examines how sales managers evaluate the severity of problems facing their sales units. Attribution literature is utilized to understand how managers may misjudge the severity of these problems. Interviews were used to identify typical sales problems and to develop measures of performance. A subsequent survey measured problems and performance among a sample of 160 sales distributors. Univariate analysis reveals that managers assess uncontrollable problems as more severe. In contrast, bivariate analysis reveals that more controllable problems have a greater negative impact on performance. Managers appear to exhibit a bias that limits their ability to accurately evaluate sales problems.

W.E. Deming contended that employees want to perform their jobs well but that work-related barriers often prevent them from doing so. Consequently, Deming encouraged managers to seek out and remove the barriers that hinder performance (1986). Deming's philosophies strongly influenced multitudes of organizations to adopt quality programs as a means to identify and eliminate problems and other barriers restricting organizational performance.

A better knowledge of the problems facing salespeople and their relative importance could lead to corrective action to improve the way firms manage and structure the sales function. However, despite the potential benefits for improved performance, little work has examined the problems occurring in sales units, the impact of these problems on performance, and whether managers are skilled at prioritizing problems so that corrective actions may be taken. The research presented here follows in the tradition of Deming by attempting to better understand sales problems, their impact on performance, and a manager's ability to assess sales-related problems.

Although examining problems is a worthy goal, the elusive nature of problems makes the task somewhat daunting. As we discuss in the next section, what seems to be a problem to one person will not appear to be a problem to another. This subjectivity in the identification and interpretation of problems makes it quite challenging to effectively target the most significant problems for managerial attention. Furthermore, research has shown that individuals are subject to in-

formation processing biases that systematically affect the way they interpret events (Bradley 1978; Curren, Folkes, and Steckel 1992). Thus, sales managers may tend to misattribute performance outcomes such that the truly important problems remain undetected. That is, the problems perceived to be the most troubling may not in fact be the problems that have the largest negative impact on performance.

## THE PROBLEM WITH PROBLEMS

A variety of issues and challenges must be surmounted when examining the impact of sales-related problems on performance. These challenges include: (1) the appropriate definition of "what is a problem"; (2) the appropriate unit of analysis for studying sales problems; and (3) the human information processing biases that make individuals imperfect evaluators of problems. In this section we discuss these challenges and present insights from the literature that shed light on these issues. Finally, we put forward two research propositions to help us examine the impact of sales-related problems on performance.

### What Is a Problem?

The first challenge in studying problems lies in the core definitional issue of whether problems are objective, "real" events or are subjective as "perceived" by the individual (Lai and Gronhaug 1994). Representative of the objective perspective are Kiesler and Sproull (1982), who identify situations in which managers fail to notice or misinterpret information about the existence of a problem. Consistent with this objective perspective is the view that problems are "tangible factors in the work environment that have the capacity to restrict performance" (Brown and Mitchell 1993).

In contrast, the subjective viewpoint holds that problems cannot be isolated from the problem owner. For example, Eden and Sims (1979) found that in what appears to be the same situation, different people perceive different problems. Hence, the subjective perspective focuses on the important role that individual interpretation plays in the perception of problems.

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A key difference between the objective and subjective perspectives is the relationship with performance. Problems “objectively” exist (by definition) if they inhibit performance. However, problems can “subjectively” exist even if they have no relationship with any dimension of performance.

Figure 1 is included to integrate and reconcile the objective and subjective perspectives on problems. From the viewpoint of a problem “owner,” problems can be either perceived or not perceived in a situation. The top row in the figure represents “subjective problems”—situations in which an individual believes a problem exists. Alternatively, problems objectively exist when elements in a situation negatively impact performance. Problems that are real are “objective problems” and are presented by the first column in Figure 1.

When a manager correctly recognizes an objective problem, the problem can be said to be identified. However, because managers must rely on their judgment in detecting and responding to problems, it is also conceivable for a manager to perceive as problematic some element in a situation that has little or no negative impact on performance. In Figure 1, this situation is referred to as a “perceived problem.” An example of a “perceived problem” may be a sales manager believing that “employee turnover” was a major source of problems. Turnover creates challenges for the manager, but it may or may not have a negative impact on performance depending on whether high-caliber replacements are brought on board. The other situation that poses a difficulty for managers is when they fail to recognize the existence of an objective problem. In Figure 1, this situation is referred to as an “unidentified problem.”

In this paper we integrate the objective and subjective perspectives on problems. We follow the lead of researchers who indicate that problems objectively exist and that these problems impact performance. Thus, we view objective problems as tangible factors in the workplace that have the capacity to negatively impact sales unit performance. However, we also recognize the value of research on the subjective perspective of problems. Sales managers’ evaluations of problems are subjective because they perceive and interpret events and outcomes through their individual frames of reference. Thus, we use the term *subjective problem* to refer to the sales manager’s evaluation of factors believed to negatively impact performance.

The Unit of Analysis Issue

A second key issue in studying problems involves identifying the appropriate unit of analysis. Specific problem incidents can be virtually limitless, resulting in unit-of-analysis complexity. For example, the “problem” of failing to deliver a product on time may result from a more general problem such as poor interdepartmental communication. From a diagnostic

Figure 1  
Subjective Versus Objective Problems

	Problem Exists (Objective Problem)	Problem Does Not Exist
Problem Perceived (Subjective Problem)	Identified Problem	Perceived Problem
Problem Not Perceived	Unidentified Problem	No Problem

and treatment point of view, managerial attention would be best focused on the problem source level than on the specific problem incident level (Wilson, Dell, and Anderson 1993).

The total quality management literature highlights the importance in seeking out the “root cause” of problems that result in a variety of “symptoms.” The root cause is any cause of problems whose removal would produce a long-term solution. Whereas the term *root cause* seems to suggest that one “real” underlying cause exists, Finlow-Bates (1998) argues that “root cause” may be a myth because (1) the root cause is dependent on the problem owner and (2) more than one potential root cause can exist. A single “root cause” of problems may not exist—the distinction between root causes and symptoms emphasizes the value of seeking out the sources of problems as the most appropriate unit of analysis.

Ultimately, even focusing on problems at the source level (e.g., interdepartmental communication) can be myopic because of the potential for interrelationships among problems. For example, poor interdepartmental communication could potentially be related to turnover among salespersons. When problems are highly interrelated, causal relationships among problems may be circular and difficult to decompose. In the example above, it can be difficult to determine if poor interdepartmental communication is the cause of turnover, the effect of turnover, or perhaps each problem is rooted in a higher-order factor such as “sales-execution problems.” For this reason, Wilson, Dell, and Anderson suggest that individual problems that appear interrelated should be considered together because “often it is the case that the same root cause has precipitated a number of similar problems” (1993, p. 41). Thus, for the purpose of problem detection and correction, looking at the higher-order “drivers” of problems may have considerable value.

On the other hand, studying the more fundamental drivers of problems is also difficult because (1) it is hard to assess problems at a more abstract level and (2) even if problems are identified correctly at this level, managers may still need to

focus improvement efforts toward the correction of specific problems. Hence, we suggest that the study of problems be pursued in a two-step approach: first, identifying observable problems; and, second, empirically evaluating the interconnectedness of problems to abstract specific problems to a broader level.

### Information Processing Biases

A third challenge to studying problems deals with the causal attributions individuals make when identifying problems. Frequently, “the causes assigned by those who are directly involved with, observe, or relate an event or occurrence are not totally reliable” (Wilson, Dell, and Anderson 1993, p. 10). Attribution theory provides some insight into how causal misattributions can occur. Attribution theory indicates that individuals are likely to use self-serving attributions when assessing the causes of events (Ross 1977).

Prior research in sales utilizing attribution theory has most frequently been applied to understanding causal attributions of performance (cf. Dixon, Spiro, and Jamil 2001; Dubinsky, Skinner, and Whittler 1989). We believe that attribution theory will also be helpful for understanding the causes identified by sales managers for the problems that occur in their sales units. Furthermore, we propose the same attribution tendencies (i.e., self-serving biases) that occur when managers assess the causes of poor performance are likely to occur in their causal attributions of problems.

Because specific causal attributions for performance can be almost endless, attribution theorists have attempted to classify attribution sources (cf. Weiner 1986). One of Weiner’s attribution classifications deals with the controllability of the problem. Controllability refers to whether the cause of an event is under the volitional control of the individual. Managers tend to view problem causes stemming from situational factors such as the economy or tactics by competitors as outside their sphere of influence and hence as relatively uncontrollable. Alternatively, managers tend to view problem causes stemming from organizational factors as within their sphere of influence and as a result more controllable.

Research has demonstrated that individuals are systematically biased in the way they make causal attributions (cf. Curren, Folkes, and Steckel 1992; Salancik and Meindl 1984). The self-serving bias is the tendency to make more internal attributions for successful performance than for unsuccessful performance (Bradley 1978). Thus, a manager seeking to explain high performance would be expected to focus on factors that are controllable. Poor performance is typically attributed to factors that are uncontrollable. The self-serving bias has been found to affect managerial attributions in a variety of studies. For example, Salancik and Meindl (1984) found that management claimed credit for 83 percent of posi-

tive events while accepting blame for only 19 percent of negative events. Likewise, Curren, Folkes, and Steckel (1992) found evidence that marketing decision-makers attribute successful decisions to internal causes but unsuccessful decisions to external causes.

The above research suggests that when performance outcomes are unsuccessful, sales managers will tend to focus on uncontrollable factors as the primary causes of the poor performance. Because problems are viewed as being negative, our expectation is that the same pattern of results will occur. Specifically, we anticipate that sales managers will be more likely to identify uncontrollable problems as more significant than controllable problems. This leads us to the following proposition:

*P1: When managers evaluate sales-related problems, problems outside the control of management will be perceived as more significant than problems within the control of management.*

### PROBLEM SENSING ERRORS: LINKING PROBLEMS TO PERFORMANCE

In the sales context, performance is a multifaceted concept. For example, meeting financial sales objectives is a critical performance metric. Other measures of performance often involve generating new business and retaining existing customers. Although organizations differ in the value placed on different types of performance, financial performance and customer acquisition/retention are two critically important types of performance for virtually all sales organizations. We focus on the impact of sales problems on these performance dimensions, recognizing that other areas of performance may also deserve attention.

Are sales managers good judges of objective problems? That is, do managers have a good grasp on which problems facing their sales units are most negatively related to performance? To address this issue, we examine sales managers’ subjective evaluations of problems. We look at the relationship between subjective problems and a variety of performance outcomes. By linking sales manager evaluations of the severity of subjective problems to performance measures, we hope to shed some light on identifying whether perceived problems have a negative impact on performance, and whether problems that are not perceived as significant have a negative impact on performance.

The earlier discussion on the “nature of problems” highlighted that subjective problems can be real (objective) or merely perceived. A variety of perspectives have been proposed for explaining how individuals can fail to notice and correctly interpret problems in a situation (Kiesler and Sproull 1982; Walsh 1988). Information processing theories suggest that in-

dividuals construct simplifying belief structures or schemas to help them deal with the overwhelming amount of information that routinely confronts them. These belief structures cause certain information to be more salient than other material so that it is highlighted in memory and inference (Kiesler and Sproull 1982). Consistent with this, research on selective perception proposes that managers are limited in their capacity to process information and hence tend to focus on information that relates specifically to their functional orientation (Dearborn and Simon 1958).

Research on attributional biases (Salancik and Meindl 1984) suggests that sales managers are likely to overestimate the severity of uncontrollable problems and underestimate the severity of controllable problems. Kiesler and Sproull (1982) indicate a key reason for this is that information about uncontrollable problems may be more salient than information about controllable problems. If this occurs, we suggest that sales managers are more likely to misjudge the severity of the impact of external problems. Correspondingly, we expect that controllable factors will have a relatively greater negative impact on performance than what is estimated by managers. Likewise, we suggest that uncontrollable factors will have a relatively lower negative impact on performance than would be expected. In summary, because of a bias in identifying and responding to problems, we propose the following:

*P2: An increased severity of subjective problems within the control of management will have a greater negative impact on performance than an increased severity of subjective problems outside the control of management.*

## RESEARCH METHOD

To empirically evaluate our propositions, we confined our study to one industry so that one set of problems would be generally relevant to all managers. We sought a mature industry with low turbulence to provide a conservative test. We reasoned that if control biases exist in a mature setting and effectively obscure assessments of problems, then we would expect a larger effect in more turbulent settings where attributions can be even more speculative. We focused on the paper industry, a prototypical mature market that is large, important, and highly competitive. Major domestic competitors in this market include Boise Cascade, Georgia Pacific, International Paper, Kimberly Clark, MeadWestvaco, and Weyerhaeuser. Industry sales are generally made through many small distributors. The high number of distributors is appealing in terms of providing a possible sample for testing. The small size of distributors is also appealing because, in contrast to large organizations, problems in small organizations should be more observable by managers, again contributing to a conservative testing context.

## Identification of Sales Problems

The process of identifying sales problems entailed an initial examination of the extant literature, both academic and practitioner. General textbooks were reviewed (e.g., Churchill et al. 2000; Stanton and Sprio 1999) as well as articles that address sales and performance issues from a broader perspective (e.g., Craig and Douglas 1982; Sujana, Weitz, and Kumar 1994). This literature review revealed numerous potential sources of problems including: (1) market factors (customer, competitor, environmental issues); (2) salesperson factors (knowledge, coordination, execution issues); (3) product-related factors (product quality, product mix), and sales management factors (communication, effective leadership). A practitioner perspective was represented by Harris (1994), who reported an industry survey published by the Paper and Plastic Education and Research Foundation. This research highlighted potential problems stemming from the nature of the market (power of competitors, supplier mergers) and the product (e.g., customizability), which were particularly relevant to the paper products industry.

After reviewing prior research on sales problems, a large paper manufacturer was contacted. This manufacturer sells primarily through independent distributors that represent multiple suppliers. Eight subjects were recruited for depth interviews, including two managers from the manufacturer who work closely with distributors and six sales distributors, all with extensive experience. Interviewees were asked to describe frequently occurring sales-related problems that have the greatest negative impact on their sales unit's performance. Interviewees then evaluated our list of problems identified from prior research, again to identify any additional problems that negatively impact their sales unit's performance.

After the fifth interview, most respondent information became repetitious. The problems identified from the sales literature and the problems uncovered during the managerial interviews were combined into a single master list of problems, with redundancies from slightly different wordings eliminated. The final three interviewees spent much of their interview time helping us categorize and organize our list of problems. The result of these efforts was a list of 27 sales-related problems, categorized as: (1) general market issues, (2) knowledge issues, (3) product/service issues, and (4) leadership/people issues. To clarify, these categories were formed based on managers' and distributors' mental category schema for thinking about these problems. Table 1 lists these problems and provides mean and standard deviations resulting from a survey that comprises Study 2.

## Identification of Performance Aspects

Interviewees were also asked to provide information about distributor performance. Discussions focused on identifying

**Table I**  
**Sales Problems**

	<b>Mean (1 = low, 7 = high)</b> <b>Standard Deviation in Parentheses</b>
<i>General Market Issues That Cause Sales Problems</i>	
1. National competitors wielding power	4.42 (1.62)
2. Internal mergers/acquisitions	4.08 (1.76)
3. Supplier mergers/acquisitions	4.47 (1.58)
4. Customer mergers/acquisitions	4.66 (1.66)
5. Electronic substitution of products (from paper to digital)	3.45 (1.56)
6. Unanticipated changes in customer needs	4.01 (1.33)
7. Unanticipated changes in competitor activities	4.65 (1.36)
8. Salesperson territories not revised frequently enough	3.30 (1.59)
<i>Knowledge Issues That Cause Sales Problems</i>	
9. Lack of an organized and developed sales process	3.57 (1.46)
10. Insufficient salesperson reviews	2.96 (1.49)
11. Lack of knowledge about customer needs	3.46 (1.62)
12. Lack of strategy for each account served	3.77 (1.62)
13. Lack of coordination between salespeople and others within the organization	4.23 (1.66)
14. Minor details cause more problems than they should	4.69 (1.66)
<i>Product/Service Offering Issues That Cause Sales Problems</i>	
15. Inability to customize products/services	3.57 (1.63)
16. Sales representatives focused on too wide a product range	3.41 (1.77)
17. Sales representatives focused on too narrow a product range	2.85 (1.55)
18. Inadequate information provided by firm regarding products	3.55 (1.72)
19. Not having the right mix of products	2.98 (1.66)
<i>Leadership/People Issues That Cause Sales Problems</i>	
20. Poor communications between sales locations	3.73 (1.77)
21. Turnover among salespeople in an organization	3.43 (1.89)
22. Salespeople have too many non-sales responsibilities	3.78 (1.98)
23. Business unit strategy is not articulated and understood	3.42 (1.64)
24. Structure of compensation	3.78 (1.89)
25. Difficulties related to sales forecasting/budgeting	3.26 (1.58)
26. Process of setting salesperson goals	3.73 (1.65)
27. Management does not provide adequate strategic and tactical direction	3.91 (1.71)

aspects of performance considered most important to overall success and aspects of performance used in rewarding employees. Five performance dimensions emerged as being particularly important. These performance dimensions include: (1) financial performance, (2) new customer acquisition, (3) customer retention, (4) salesperson retention, and (5) channel or supply chain coordination. Thus, the financial and customer acquisition dimensions identified by earlier interviewees were included, but customer acquisition was viewed distinctly from customer retention, and two additional performance dimensions were identified.

### Survey Procedure

We next developed a survey to assess sales managers' evaluations of the significance of the 27 problems in their sales unit, and to evaluate the five performance dimensions identified above. Survey development included assessments from two

sales managers associated with paper sales distributors to help ensure that questions asked could be knowledgeably answered. Two rounds of pilot testing were conducted, and various adjustments were made to improve readability. The final survey also included other questions to (1) categorize respondents, (2) assess organizational learning activities, and (3) gather qualitative feedback to identify any particular methods used to reduce the recurrence of problems. Further, several questions were included in the survey at the request of management of a large manufacturer in the industry. In exchange, this manufacturer provided sponsorship through access to its international network of independent distributors for distributing the survey.

Of 500 surveys mailed to sales distributors, 160 responses were received (32 percent response rate including 17 initial nonrespondents). The survey and cover letter asked respondents to answer the questions on the survey in reference to their sales unit. The cover letter also clarified that individual

respondents' answers would not be shared with the sponsoring manufacturer. This anonymity was important to stress because respondents were being asked to evaluate the performance of their supply chain, which included the manufacturer.

### Respondent Profile

In terms of classifying survey respondents, 16.6 is the average years of sales experience among respondents, and 11.4 is the average years working for their present employer. Respondent distributorships have an average of 23 salespeople and relatively low turnover among these salespeople (median = 6.5 percent annual turnover during the past two years). Annual revenue among distributors averaged \$20.8 million, but with a large range. Several small distributors have revenues under \$100,000, yet several large distributors have revenues in excess of \$100 million. Respondents generate most of their revenues from the sale of paper (carbonless, coated, and uncoated), yet many distributors also generate earnings from the sale of other industrial products (average earnings from non-paper product lines was 19.5 percent).

### Sales Problems and Performance Dimensions

The 160 survey respondents evaluated each of the 27 issues. Respondents reported the severity of these 27 items on a seven-point Likert scale. Scale endpoints were (low end, 1) "is not typically a source of problems" and (high end, 7) "is often a source of problems," where problems were described as "issues that had a negative impact on your sales unit's performance." Maximum likelihood factor analysis with varimax rotation was used to reduce the 27 problems into a smaller set of conceptually broader types of problems. Analysis was conducted specifying different solution criteria, including eigenvalues >1 and specific numbers of factors. The most appealing solution was obtained using an eight-factor solution and is presented in Table 2. Results shown in Table 2 are appealing because (1) conceptually, the solution seemed reasonable to two distributor sales managers and one sales manager from the sponsoring manufacturer, (2) the factor loadings that connect problems with their respective factors exceeded 0.7, and (3) cross-loadings were small, indicating items loaded strongly on only one factor.

The left column of Table 2 provides interpretive names we assigned to the eight dimensions of sales problems that emerged from the factor analysis. The second column of Table 2 indicates the primary factor related to each of the 27 problems. The third column of Table 2 indicates means, standard deviations, and eigenvalues for each dimension. Mean and standard deviations were calculated by representing each dimension as a mean of the individual items in the second column. Using factor scores is another common method of

combining measures; however, averaging measures yields mean and standard deviation statistics that are more easily interpreted. The right-hand column of Table 2 provides controllability ratings that are used to test our first hypothesis. To determine perceived controllability of these problem dimensions we presented the set of factors and specific problems to a sample of 19 sales managers who had not provided survey responses. The controllability ratings indicate that Industry Structure (mean = 3.58) and Competition (mean = 3.95) are most difficult to control, whereas Sales Management (mean = 1.68) and Sales Knowledge (mean = 1.84) are the easiest for managers to control.

The five performance areas identified through exploratory interviews were financial (profit and stability), growth of new business, customer retention, employee retention, and channel coordination. Each survey respondent evaluated organizational performance in these areas. Multiple questions were asked for each performance area (16 questions in total) and 1–9 Likert scale response formats were employed, where one indicated poor performance and nine indicated high performance. The multiple items loaded on the expected factors, except that the customer retention and salesperson retention items loaded on a single factor. We thus retained a four-factor solution, and Table 3 indicates the corresponding means and standard deviations.

Based on the pattern of responses reported in Table 3, respondents on average seem to have a favorable view of their sales unit's performance. For example, on a nine-point Likert scale, the evaluation of the sales units' financial performance exhibited a mean of 6.97. The means and standard deviations seem reasonable given the stable nature of this market. That is, individual distributors in this industry achieve relatively stable performance, and the generally "good" performance may reflect an alignment of performance goals and achievement.

### Results of Proposition Tests

P1 indicated that problems stemming from uncontrollable causes would be perceived as more significant than problems stemming from controllable causes. The descriptive statistics reported in Table 2 support this proposition. The two problem factors rated as being most severe, Competition and Industry Structure, were also rated as being most difficult to control by the independent sample of sales managers. The problem factor rated as being least severe was Product (i.e., having the right mix of products), and this factor was rated third easiest to control. Next, a correlation analysis was conducted to assess covariation between means of factor problem-severity means of controllability (i.e., a correlation between means from columns three and four of Table 2). This correlation is 0.768,  $p < 0.03$ , showing an overall strong

**Table 2**  
**Sales Problem Dimensions**

Type of Problem (Eight-Factor Solution)	Problems (from List of 27 in Table 1) That Correspond to This Type of Problem					Mean, Standard Deviations (Parentheses), and Eigenvalues (Brackets)			Controllability (1–5 Scale) 1 = Easy to Control, 5 = Impossible to Control
Sales Management	23	24	25	26	27	3.62	(1.28)	[3.55]	1.68
Sales Execution	13	14	15	20	21	3.90	(1.25)	[2.53]	2.21
Sales Knowledge	9	10	11	12		3.45	(1.20)	[2.16]	1.84
Industry Structure	2	3	4			4.39	(1.42)	[2.02]	3.58
Competition	1	7				4.54	(1.29)	[1.35]	3.95
Product	17	19				2.93	(1.25)	[1.27]	2.00
Sales Territory	8	16				3.34	(1.36)	[1.24]	2.05
Market Knowledge	5	6	18			3.56	(1.08)	[1.18]	2.66

*Notes:* Dimensions are based on exploratory factor analysis. Columns two and three contain data from a sample of 160 distributors, and this data was used to develop the eight factors. Column four provides data from a separate sample of 19 sales managers who rated the degree to which each factor is controllable.

**Table 3**  
**Performance Dimension Statistics**

Performance Dimension	Mean and Standard Deviation (in Parentheses) Based on 1–9 Likert Scale (1 = Poor, 9 = High)	
Financial Performance (Profit and Stability)	6.97	(1.37)
Growth of Customers	5.90	(1.73)
Retention of Customers and Employees	6.43	(1.64)
Channel Coordination	6.10	(1.52)

association between controllability and perceived problem significance. Finally, a series of one-tailed *t*-tests were conducted to determine if competition and industry structure means were significantly different from means of other dimensions. The findings indicated that industry structure and competition problems were perceived as more severe than all other problems, with all findings significant at the  $p < 0.01$  level.

P2 indicated that controllable problems would have a greater negative impact on performance than uncontrollable problems. To test P2, each of the four performance dimensions was regressed on the set of eight problem dimensions. The regression analysis presented in Table 4 provides some support for this proposition. Although the uncontrollable problems of Competition and Industry Structure were perceived as being the most severe, neither of these factors was significantly negatively related to the performance dimensions. In fact, Industry Structure problems were *positively* related to performance, suggesting that industry changes have been beneficial and that distributors are adept at reacting to these changes. In contrast to the impact of these less controllable factors, the more controllable factors of Sales Management, Sales Execution, Product, and Sales Territory were all significantly negatively related to one or more performance

dimension. Thus, an increase in the perceived severity of controllable factors corresponds to diminished performance. Finally, in contrast to our expectations, more severe Sales Knowledge problems result in higher performance among the Retention and Channel Coordination performance, again suggesting a high ability among distributors to react to these types of problems.

Our findings provide support for the predictions based on attribution theory. A potential alternative explanation for our findings could be that our sample included members of a single industry who all faced the same competitive and economic conditions. That is, a lack of relationship between the uncontrollable factors (Industry Structure and Competition) and performance may be due to a lack of variance in the uncontrollable factors. However, this alternative explanation is not supported by the data. The standard deviation for the industry structure factor (1.40) and the competition factor (1.29) was comparable to the standard deviations observed for the more controllable problems (from 1.08 to 1.36).

With respect to the  $R^2$  values reported in Table 4, we note that performance is a function of many non-sales issues. Therefore,  $R^2$  values are more useful to compare models rather than to evaluate whether the set of sales problems adequately



**Table 4**  
**Regression Results**

Performance Dimension	$R^2$	Statistically Significant Unstandardized Coefficients for Eight Problem Types							
		Sales Management	Sales Execution	Sales Knowledge	Industry Structure	Competition	Product	Territory Assignments	Market Knowledge
Financial Growth	0.18	-0.295**	0.015	0.101	0.246**	-0.105	-0.159*	-0.214**	-0.018
Retention	0.31	-0.491**	-0.298**	-0.022	0.257**	-0.042	-0.063	-0.122	-0.172
Channel	0.41	-0.268**	-0.682**	0.259**	0.294**	-0.068	-0.129	-0.084	0.013
	0.26	-0.193*	-0.415**	0.260**	-0.022	0.104	-0.211**	0.030	-0.186

\* significant at  $p < 0.10$  using two-tailed test; \*\* significant at  $p < 0.05$  using two-tailed test.

explains the variation in performance dimensions. The highest  $R^2$  values are achieved when using sales problems to predict performance dimensions that include Customer Growth and Retention. Conceptually, these two performance dimensions are more tightly driven by sales issues compared to the Financial and Channel Performance dimensions. Thus, these relatively high  $R^2$  values hold intuitive appeal.

## DISCUSSION

Previous research in the sales literature has focused almost exclusively on the role of salesperson attitudes and behavior as determinants of performance. Whereas this research has been of great theoretical and applied value, the amount of variance explained in performance leads us to realize that better understanding sales-related problems is a relatively important yet unexplored area for study.

Our findings support the view that sales managers may be rather poor evaluators of objective sales problems. Based on processing bias theory, we expected that managers would perceive uncontrollable problems to be more severe than problems within their control. We further reasoned that, contrary to these managerial perceptions, performance would be more significantly affected by controllable problems than uncontrollable problems. Our empirical findings generally support these expectations. However, the merger-acquisition industry structure problem area has high impact and low controllability.

For managerial practice, these initial results suggest that sales managers may reap rewards by better understanding and prioritizing the problems facing their sales units. Essentially, the issues that cause most problems actually are more controllable than managers assume. This suggests that managers may achieve higher performance by working on issues that really can be controlled. Thus, our recommendation to sales managers is to systematically measure and track various controllable and less controllable factors that apply to their business, relate them to performance, and then think about how to improve performance on the factors most related to performance. Adopting a systematic approach is key—our research suggests value in avoiding natural intuitions that may be biased.

Another opportunity for management suggested by the present study resides in sales manager training. That is, sales organizations should find ways to assist sales managers by training managers how to be more objective in their assessments. A simple reporting system should be developed for use by sales managers to evaluate the performance impact associated with various factors. Many firms do track multiple dimensions of performance and problem areas. Therefore, the task of linking problems to performance should not be overly difficult because the data may already exist.

Results also suggest rich opportunities for academic research in sales management. More attention should be paid

to the issue of controllability, and, in particular, the locus-of-control literature could be usefully generalized to this sales area. Further, research should address the question of how to best support sales managers in their quest for tying problem areas to performance. Currently, the literature has not identified and compared alternative methods of measuring performance impact in terms of finding methods that would be most useful and understandable for sales managers.

A limitation of our data is that one set of managers provided ratings for both sales problems and performance. A different test of whether managers are “good” at assessing problems would be to correlate perceptions of problem severity with performance measures derived from a different source. What can be concluded from our single-source data is that manager assessments of problems seem to be misaligned with their own evaluations of how problems are related to performance.

Another explanation for why certain types of problems have a greater impact on performance is that managers have difficulties in responding to certain types of problems. Responding to problems stemming from uncontrollable causes may be palatable to managers because dealing with these problems does not entail a risk of internal finger-pointing and subsequent de-motivation. This explanation would be consistent with findings from “problem-finding” exercises in product development in which managers often attempt to avoid potentially unpleasant confrontations with other project participants (e.g., Busby 1999). Responding to controllable problems, however, requires more skill and risk of affecting employee morale. It would be understandable to find that managers avoid, or at least delay, dealing with internal problems to some extent. Further research may usefully explore this issue.

Our findings indicate that further study of how managers perceive and interpret sales problems should prove fruitful. It would be interesting to study how contextual differences impact the effectiveness of managers in evaluating the severity of sales problems. Given that we studied a mature industry where turbulence is relatively low and that we studied small organizations where problems should not be obscured, we expect that the tendencies we have identified here may actually be more pronounced among larger firms. Future research may also attempt to identify techniques that could help managers de-bias their evaluations of problems. If sales managers desire to follow the advice of Deming and “remove the barriers to performance,” they must improve their ability to correctly assess the problems that are most related to their firm’s performance.

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