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Sales Force Management in a Deregulated Environment: General Freight Carriers

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ABSTRACT

This study investigates the sales force management practices of general freight motor carriers in the post-MCA competitive environment. The results support the contention that carriers have already changed or intend to change significant aspects of their sales force management activities in response to their new environment.

The significantly greater reliance by large carriers than by smaller ones on advertisements, customers, and universities as recruiting sources suggests that the larger firms are making a concerted effort to recruit salespeople who have advanced technical skills as well as those with a more thorough knowledge of customers based on direct experience.

The results show that a significant portion of the carriers intend to add various psychological tests to their selection criteria in an effort to be more scientific and systematic in obtaining salespeople whose skills are highly compatible with the stressful competitive environment in which the carriers now find themselves.

Finally, the results denote that the larger carriers devote a significantly higher share of their sales force training programs to pricing issues than do the smaller carriers. It is reasonable to expect that the larger carriers have a wide range of customers with specific price/service needs and, as a consequence, a need for salespeople with much more extensive training in pricing.

I. INTRODUCTION

The examination of sales force management in the motor carrier industry is of particular relevance for several reasons. First, the significant differences between the marketing of a service (such as truck transportation) and the marketing of a good place primary emphasis on achieving an efficient, productive sales force in a service industry. Second, the Motor Carrier Act of 1980 (MCA) created a more competitive environment requiring motor carriers to distinguish their services (especially on the price dimension) from those of their competitors. Such differentiation dictates that the industry's sales force acquire additional skills that were of significantly less importance in a highly regulated environment.

Given the critical importance of the sales force in the motor carrier industry, it is surprising that no systematic, empirical investigation of the industry's sales force management practices have been conducted to date. The objective of this paper is to provide such an investigation of the practices of one industry segment—namely, the general freight carriers.

A. Differences Between Goods and Services Marketing

While the marketing of services has much in common with the marketing of goods, important differences do exist. One distinguishing characteristic is that services are more intangible than tangible and, as a consequence, cannot be easily displayed.[1] For instance, a computer salesperson can bring portable computers to potential clients, but a motor carrier salesperson cannot produce such a tangible item to demonstrate freight services offered by the company.

Second, unlike goods marketing, services marketing involves simultaneous production and consumption of the individual service.[2] This particular quality suggests that services must be provided in the right way. As such, discourteous service personnel can have significant ramifications for future business; inconsiderate and rude sales personnel could lose customers permanently for a motor carrier.

Third, services may be far less standardized than are goods.[3] One would expect little variability from items produced by the same machine, as the operating environment remains relatively unchanged during the production process. However, with services, the operating environment may differ tremendously from production to production, thus causing variability in the particular service. For instance, transportation on-time performance is generally better in good weather than it is in bad weather.

Finally, goods and services differ in that services cannot be inventoried.[4] That is, tangible items can be stored to meet uncertainties in either supply or demand. However, the truck capacity that goes unused on a particular trip cannot be saved for use at a later date.

These distinct differences between the marketing of goods and the marketing of services result in differences in the types of individuals and the skills needed for selling services as opposed to selling goods. For example, personal selling may play a greater role in services marketing than it does in goods marketing. Zeithaml points out that one strategy for dealing with the intangibility of services is for personal sources to be used more often than nonpersonal sources.[5] A study by Kelly and George found the relationship between the buyer and the salesperson is more important in services marketing than it is in goods marketing. Moreover, they discovered that customers need more assistance when

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buying services, primarily because services cannot sell themselves.[6] With respect to transportation, Hynes finds that the motor carrier user may have difficulty in distinguishing between different carriers' services and that carrier choice "*may be influenced by the quality and training of the carrier's salespeople. . . .*"

B. The New Competitive Environment

Sales force management in the motor carrier industry has taken on new importance as a result of the new competitive environment ushered in with the passage of the MCA of 1980. It is logical to expect that carriers, forced for the first time to compete with each other on a price dimension, would have to devote additional resources to marketing and, in particular, the development of new skills in their sales force. It is not surprising, then, that a recent study by Cross and Beier found marketing planning to be a relatively new activity in many motor carrier companies. Moreover, they discovered *personal selling* to be an extremely important component of a carrier's marketing program.[8]

Sales force management in the new environment can provide a carrier with a noticeable competitive edge over rival firms. *Distribution Magazine* conducted a survey (August 1986) of transportation users, asking them to rate particular carriers on four marketing dimensions (service, convenience, price, and sales). The respondents rated the industry as being weakest on the sales dimension, which included knowledge by the sales force of services and customers' needs.[9] Increased attention to sales force personnel could allow carriers to cultivate an effective, efficient sales force that is willing to work with users to satisfy their freight needs. Such a sales force could provide a carrier with a noticeable competitive advantage in the post-MCA environment.

C. Research Objectives

Having established the importance of effective sales force management in the motor carrier industry, particularly in the post-MCA environment, it is all the more critical that a systematic investigation be made of its sales force management techniques. The current research provides an investigation of the sales force management practices of one large industry segment most directly impacted by the MCA—i.e., the general freight segment. The main research objective is to develop evidence to answer the following questions.

- What sources are used to recruit motor carrier salespeople?
- How do the sources used differ among carriers based on their size, their profitability, and the geographic scope of their operations?
- What techniques are used to select motor carrier salespeople?
- How do the selection techniques differ among carriers based on their size, their profitability, and the geographic scope of their operations?
- What is the content of sales force training programs used in the motor carrier industry?
- How does the content differ among carriers based on their size, their profitability, and the geographic scope of their operations?

It is expected that the answers to these questions will be of general use to motor carriers in all industry segments as a basis for comparison with their own current sales force management techniques. Furthermore, the results will identify whether large and/or more profitable motor carriers in a particular industry segment exhibit any distinguishing recruitment, selection, and/or training practices which other carriers may want to model in modifying their current programs. Finally, the results concerning sales force management practices in a service industry undergoing vast changes in its regulatory environment will serve as a basis for comparison with the experiences of other service industries and/or other industries undergoing rapid environmental changes due to the changes in regulations.

II. DATA AND METHODS OF ANALYSIS

A. Data

The authors collected information on sales force management practices by means of a mail survey sent to all Class I and II motor carriers of general freight. Specifically, the authors obtained from the Interstate Commerce Commission the computer list of all ICC-regulated motor carriers. From that list, all Class I and II motor carriers classified as Instruction 27 carriers—i.e., general freight carriers with at least 75 percent of their revenues derived from hauling general freight—were selected for sampling. The 1985 Annual Reports of all Class I and II motor carriers were also checked to verify that all carriers meeting the criteria of Instruction 27 carriers were included in the universe. All carriers thus identified were sent questionnaires. Excluding firms who had discontinued operations since the end of 1985, 347 firms were identified as meeting the criteria cited above.

A concerted effort was made to send the survey to the highest ranking sales or marketing executive. If such a person could not be identified, then the survey was addressed to the company President. Each of the firms received an initial mailing of the survey. Non-respondents were sent a follow-up survey approximately one month after the initial mailing. These two mailings resulted in 134 usable surveys being returned—a response rate of 39 percent.

The 347 firms constituting the universe of general freight carriers with at least 75 percent of their revenues from general freight (i.e. Instruction 27 carriers) were divided into twelve strata based on their 1985 operating revenues for the purpose of developing expansion factors. As shown in Table 1, the response rate in each stratum is at or above 21 percent with the rate exceeding 50 percent in five strata. On the basis of the response rate in each stratum, expansion factors were developed for each stratum through the application of the following formula: 1 / r, where r is the response rate in a particular stratum.

In the remaining sections of the paper, results are reported using the expansion factors developed in Table 1. Thus, tables reporting the number of firms answering a particular question are based on an expansion of survey results to the universe. Furthermore, tables reporting percentage of firms answering a particular way are also based on the application of the expansion factors to each stratum.

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TABLE 1
Expansion Factors for Revenue Groups General Freight, LTL Carriers

Revenue Groups* ($000's)	Response Rate	Expansion Factor
402-1,967	0.25	4.00
2,031-2,993	0.21	4.77
3,081-4,894	0.29	3.42
5,131-7,399	0.37	2.73
7,882-12,235	0.53	1.89
12,548-17,488	0.44	2.23
17,877-24,911	0.52	1.93
25,223-48,651	0.52	1.93
53,439-99,663	0.65	1.53
103,390-244,752	0.44	2.29
302,221-673,676	0.57	1.75
1,329,571-1,428,750	0.33	3.00

* Based on 1985 Total Operating Revenue

B. Analysis Methods

In discussing the recruitment and selection techniques of the general freight carriers, frequency distributions are presented showing the expanded number of motor carriers who currently use, plan to use, and never use a particular technique. Logit analysis is employed to assess the combined influence of firm size (annual revenues), profitability (operating ratio), and geographic scope of operations (number of states) on the decision to use each selection and recruitment technique explored.

The information on sales force training content was continuous in nature (i.e., the questionnaire included information on the percent of total training effort devoted to each content item covered in the course). The content of the training programs currently in use is given by showing the expanded number of firms falling into a particular percentage group (e.g. the expanded number of firms that spend less than 10 percent of their training program on operations). The continuous nature of the training variables enables the use of multiple regression to discover relationships between training content and the combined influence of the carrier attribute variables (firm size, operating ratio, and the geographic scope of operations).

The remainder of this paper is devoted to the presentation of empirical results regarding the sales force management practices of general freight carriers in the areas of recruitment, selection, and training of new salespeople. A final section summarizes empirical results and draws implications regarding future studies of sales force management in the motor carrier industry.

III. RECRUITMENT TECHNIQUES

A. Univariate Analysis

An initial component in sales force management concerns sources of recruitment for new salespeople. Information on the recruitment tactics of motor carriers, presented in Table 2, indicates that the most popular source of recruitment is from people cur-

TABLE 2
Sources of Recruitment

Source	Currently Use	Plan to Use	Never Use
People in Company	290* (90)**	27 (8)	5 (2)
Customers	218 (70)	12 (4)	82 (26)
Advertisements	209 (65)	22 (7)	89 (28)
Competitors	197 (64)	29 (10)	80 (26)
Universities	98 (32)	69 (23)	134 (45)
Employment Agencies	50 (17)	16 (5)	233 (78)

Totals may not add to universe of 347 due to non-responses

* Number of Firms
** % of Firms

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rently within the company, while the least popular recruitment source is employment agencies. A likely explanation for these findings is cost-based: i.e., in-house recruiting is characterized by low out-of-pocket costs, while employment agencies require high out-of-pocket expenditures. Moreover, recruitment from within may also mean that the acculturation process for new sales personnel is kept to a minimum, which should reduce the level of organizational disfunction.

Moreover, recruitment from educational institutions (colleges and universities) is the source most likely to be added in the future by motor carriers. In fact, 23 percent of the carriers plan to use universities as a recruiting source. No other recruiting source is planned to be added by more than 10 percent of the carriers. One explanation for this is the changing nature of the industry, in that advanced formal education is seen as essential in adapting to the new marketplace, which is characterized by change. College educated personnel are often viewed as being better able to accept change and to adapt to change than are non-college educated workers. Furthermore, college educated workers may possess some of the technical skills (e.g.. exposure to personal computers and particular software packages) that are now viewed as critical in the new competitive environment.

B. Multivariate Analysis

Table 3 displays the results of the logit analysis indicating the contribution of the firm attribute variables (size, profitability, and scope of operations) in combination to explain the decision to use each of the recruitment techniques examined.

The logit results presented in Table 3 demonstrate that firm size, profitability, and scope of operations, taken together, significantly influence the decision to use a particular recruitment technique. For example, profitability and scope of operations contribute significantly (at the .10 level) towards an explanation of the carrier decision to recruit by means of advertisements. Specifically, the positive coefficient for the operating ratio variable suggests that firms with higher operating ratios are more likely to use advertisements than are those with lower operating ratios. Additionally, the positive coefficient for scope of operations suggests that firms operating in a larger number of states are more likely to use advertisements than are those with more limited operations.

Concerning the influence of operating ratios on use of advertisements, it is observed that while 82 percent of the motor carriers with an operating ratio of 1.01 or more use advertisements as a recruiting tool, only 57 percent of those with an operating ratio

TABLE 3

Influence of Firm Attributes on Recruitment Sources: Logit Results

	Firm Variables			
Source	Revenues(1)	# of States	Operating Ratio	Chi-Square Test(2)
Advertisements	.129(3) (1.08)(4)	.047 (1.90)***	5.32 (1.90)***	11.7*(5)
Customers	.578 (4.21)*	-.139 (0.65)	8.07 (2.77)*	27.3*
Universities	.364 (3.15)*	.010 (0.56)	-4.14 (1.57)	22.0*
Competitors	.032 (0.28)	.044 (1.96)**	5.67 (2.12)**	9.6**

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* significant at the .01 level
** significant at the .05 level
*** significant at the .10 level

(1) Log transformation performed.
(2) Chi-square statistic on the log-likelihood ratio to test the hypothesis that all coefficients except the constant are equal to zero. Chi-square statistics exceeding tabled values indicate the coefficients are statistically significantly different from zero at the shown levels of significance.
(3) Positive coefficients indicate an increase in the likelihood that a particular source will be used, while negative coefficients indicate a decrease in the probability that a source will be used.
(4) T-statistic.

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less than 0.97 employ advertisements. A possible explanation for this finding is that less profitable firms, looking for an infusion of new talent that might improve their financial performance, are attracted to advertisements since they provide the most cost effective way for them to reach out to a group of individuals not directly targeted by other recruiting sources—such as from within the company or from customers. The less profitable firms may regard advertisements as the best way to attract new salespeople who are unconnected with the company's past experience as a basis for striking out along new lines.

In explaining the relationship between scope of operations and the use of advertisements, it should be noted that approximately 80 percent of the motor carriers operating in ten or more states have advertisements as part of their recruiting package, while about 58 percent of the companies operating in one or two states recruit new salespeople through advertisements.

Logit results show that firm size and profitability contribute significantly (at the .01 level) to an explanation of the decision to use customers for recruiting purposes. The positive coefficient for firm size indicates that larger firms are more likely than are smaller ones to use their customers as a source for new salespeople. The positive coefficient for operating ratio demonstrates that increases in operating ratio are associated with increased likelihood that customers will be used in recruiting.

In terms of the influence of firm size, 44 percent of motor carriers with annual revenues of less than $2.7 million utilize customers as a recruiting source, while 75 percent of those with revenues in excess of that amount recruit new salespeople from existing customers. Thus, larger companies are more apt to use customers as a source of sales force recruits. From a customer's perspective, the small trucking companies may be unattractive potential employers. For example, firms with less than $2.7 million in annual revenue may not have pension plans or competitive medical benefits.

The logit results show that firm size adds significantly (at the .01 level) to an understanding of the use of colleges/ universities as recruiting sources. The positive coefficient suggests that larger firms are more likely than are smaller ones to bring their recruiters to colleges/universities. Specifically, 30 percent of the truckers with under $8 million in revenues recruit at schools, compared to 55 percent of those with greater revenues. Recruitment at colleges/universities is often a costly and time-consuming practice; smaller motor carriers may have neither the resources nor manpower to devote to large-scale university recruitment.

The final recruiting source analyzed by a logit model is the use of competitors. Two variables (scope of operations and profitability) helped explain the carrier decision to use competitors for recruiting. Specifically, the model's positive coefficient for the profitability variable denotes a greater likelihood to use competitors among firms with higher operating ratios. Furthermore, the positive coefficient on the geographic scope variable shows that firms with more extensive operations rely more heavily on competitors than do firms with a more limited operation. These results suggest an effort by the less profitable motor carriers to reverse their financial plight by "raiding" talented salespeople (with possible personal connections to major accounts) from their competitors.

In short, the results regarding recruitment sources indicate that the larger general freight carriers are significantly more likely than are smaller firms to use advertisements, customers, competitors and universities as sources of recruitment. The combination of these results suggest that the larger general freight carriers have been making a concerted effort to recruit salespeople who have greater technical skills as well as those with more thorough customer knowledge. This trend is consistent with the new competitive environment which, as suggested earlier, requires carriers to put into the field salespeople who have the ability to grasp complex pricing issues as well as to relate to the needs and concerns of the customer. Furthermore, the logit results indicate that firms with high operating ratios are more likely than are firms with lower operating ratios to use a wide range of recruiting sources in an effort to reverse their financial situation.

IV. SELECTION TECHNIQUES

A. Univariate Analysis

Once a company has attracted a pool of sales force applicants, it must then select new salespeople from these applicants. The information in Table 4 indicates that three techniques—personal interviews, application blanks, and reference checks—enjoy the most popularity as sales force selection techniques in the motor carrier industry. These results are in concert with selection practices in other industries. For example, Stanton and Buskirk reported that application blanks and personal interviews are the two most commonly used selection tools by businesses.

Application blanks can provide a relatively cheap and quick method for increasing a company's knowledge about potential salespeople. Interviews, on the other hand, provide a way to see how effective an applicant is in a social situation. Social adroitness is certainly an important attribute for any salesperson to possess. The importance of reference checks as a selection tool in the motor carrier industry reflects the industry's concern for honest, trustworthy employees. Given that motor carriers generally transport higher-valued freight, suspectable to theft, reference checks may be helpful in determining whether a potential salesperson has ever been accused, caught, and/or convicted of pilferage.

Moreover, the data in Table 4 suggest that three items— personality tests, intelligence tests, and aptitude tests—are going to be more prevalent in the selection of future motor carrier salespeople. Each of these tools represents one type of psychological testing and is an indication that motor carriers are striving to improve the effectiveness of their selection process. This quest for efficiency is consistent with the carriers' need in the new competitive environment to minimize the costs associated with high sales force turnover and to maximize the likelihood of hiring salespeople who will make an effective contribution. Psychological tests are justified on the grounds that they can measure dimensions that may not be fully explored by other selection techniques.

Concerning selection techniques, perhaps the most interesting finding is the indication that a size-

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TABLE 4
Selection Techniques

Technique	Currently Use	Plan to Use	Never Use
Personal Interviews	317* (98)**	5 (2)	0 (0)
Application Blanks	307 (96)	0 (0)	16 (4)
Reference Checks	302 (94)	11 (4)	7 (2)
Physical Exams	162 (52)	24 (8)	127 (40)
Personality Tests	101 (33)	64 (21)	138 (46)
Aptitude Tests	63 (22)	56 (19)	170 (59)
Intelligence Tests	56 (20)	52 (18)	178 (62)

Totals may not add to universe of 347 due to non-responses

*Number of Firms
** % of Firms

able portion of the carriers intend to add psychological testing to their set of selection criteria. The addition of these tests clearly seems to indicate an attempt by the carriers to upgrade the quality of their sales force in the new competitive environment. The planned use of these tests suggests that carriers recognize the need to identify certain characteristics associated with effective selling and then select individuals possessing those characteristics. There is a clear recognition that the new competitive environment has placed new demands on their salespeople who must, as noted in the introduction, be more effective individual communicators with the customers.

B. Multivariate Analysis

Logit results in Table 5 show that there are several statistically significant firm attribute variables that

TABLE 5
Influence of Firm Attributes on Selection Sources: Logit Results

	Firm Variables			
Source	Revenues(1)	# of States	Operating Ratio	Chi-Square Test(2)
Physical Exams	.200(3) (1.90)***	.014 (0.80)	6.217 (2.49)**	11.6*
Personality Tests	-.055 (0.51)	.050 (2.72)*	1.915 (0.77)	9.5**
Intelligence Tests	.282 (2.05)**	.031 (1.65)	1.78 (0.59)	14.6*

* significant at the .01 level
** significant at the .05 level
*** significant at the .10 level

(1) Log transformation performed.
(2) Chi-square statistic on the log-likelihood ratio to test the hypothesis that all coefficients except the constant are equal to zero. Chi-square statistics exceeding tabled values indicate the coefficients are statistically significantly different from zero at the shown levels of significance.
(3) Positive coefficients indicate an increase in the likelihood that a particular source will be used, while negative coefficients indicate a decrease in the probability that a source will be used.
(4) T-statistic.

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explain company decisions to employ various selection techniques. For example, firm profitability and size contribute significantly to an understanding of carrier decisions to use physical exams in the selection process. Approximately 50 percent of the motor carriers with operating ratios less than or equal to 1.00 use physical exams as a selection tool, while nearly 80 percent of the carriers with operating ratios of 1.01 or more use them. Therefore, less profitable motor carriers make greater use of physical as a selection technique than do more profitable firms. The positive coefficient for firm size shows that firms with higher revenues are more likely than smaller ones to use physical exams in their selection process.

Logit analysis also revealed that larger firms are more likely than are smaller ones to employ the various psychological tests in selection. For example, almost 50% of the carriers with operations in ten or more states make use of aptitude tests, compared with 14% of the firms operating in fewer than ten states. Similarly, 52% of the firms operating in ten or more states employ personality tests as a selection tool; 30% of the carriers with more limited operations make use of personality tests.

V. TRAINING CONTENT

A. Univariate Analysis

Once new salespeople have been selected, it is crucial that they be carefully trained. As pointed out earlier in this paper, the quality and training of motor carrier sales personnel may be the key factor in the overall effectiveness of a carrier's sales force management program. Table 6 contains information on the content of training programs for new motor carrier salespeople. Three items—selling, operations, and pricing—dominate the training programs for new sales personnel. Not surprisingly, selling information represents the most popular component of a sales force training program. To insure that sales personnel are well-versed in selling tactics, approximately 200 motor carriers devote more than 20 percent of their training programs to selling techniques.

Operations information appears to be the next most popular component of a salesperson's training program. Approximately 145 motor carriers spend upwards of 20 percent of their training content on operations information. Salespeople must be knowledgeable about the capabilities of their company, including such matters as terminal locations and transit times, in order to construct price/service packages for customers.

Pricing practices represent the third major area of content in the training programs of motor carrier salespeople. Approximately 130 motor carriers devote more than 20 percent of their training programs to pricing issues. The changing nature of motor carrier pricing practices provides support for the importance of pricing as a component of sales force training. That is, pricing freedoms granted the industry since the MCA of 1980 allow salespeople to develop rate packages for particular shippers. Therefore, it is essential for salespeople to understand the costing and pricing practices of their company so that they have maximum flexibility in procuring business for their respective companies.

B. Multivariate Analysis

Multiple regression results, presented in Table 7, show relationships between training content and firm attribute variables (size, profitability, and scope of operations). For example, firm variations in the pricing content of their training program are significantly related to scope of operations. The positive regression coefficient indicates that as the number of states operated in increases so too does the portion of training devoted to pricing issues. Motor carriers

TABLE 6
Training Content

Number of Firms Reporting a Particular Item as Percentage of Formal Training Program

Item	0-9%	10-19%	20-29%	30-49%	>50%
Selling	32	75	91	68	37
Operations	44	113	76	48	20
Pricing	48	126	103	24	2
Company Philosophy	116	116	60	6	4
Competitor Information	134	118	44	5	2
Transportation Information	159	110	22	10	0
Claims	223	70	4	5	0
Government Regulations	266	29	6	0	0

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TABLE 7
Influence of Firm Attributes on Training Content: Multiple Regression Results

	Firm Variables			
Item	Revenues	# of States	Operating Ratio	F-Statistic
Selling(1)	.00000006(2) (4.20)*(3)	-.148 (1.18)	37.45 (2.20)*	7.05*
Operations	.00000005 (2.57)*	.051 (.046)	-24.81 (1.66)**	3.01**
Pricing	.000000004 (0.37)	.177 (2.33)**	15.97 (1.55)	3.50**

*Significant at the .01 level
**Significant at the .05 level

(1) Dependent variable is the percent of training content devoted to a particular item.
(2) Positive coefficients indicate increases in independent variable are associated with increases in training content devoted to a particular item, while negative coefficients indicate the opposite.
(3) T-statistic.

operating in one or two states spend 12 percent of their training programs on pricing issues; companies operating in three or more states report that pricing information accounts for slightly more than 17 percent of their sales force training programs. Larger carriers, with more customers than the smaller carriers, are likely to have pricing policies that vary by customer (e.g., a high volume user may be entitled to a greater discount than is a low volume user). Given this scenario, it is imperative that salespeople be knowledgeable about rates so that customers are charged the correct prices.

Table 7 also indicates that there are significant relationships between the amount of selling information included in a training program and firm size, and operating ratio. The regression coefficients for both these variables are positive indicating that increasing firm size and higher firm operating ratios are significantly (at the .05 level) related to an increasing amount of selling information in the training program. It appears that the relationship between selling information and firm size is best explained by looking at the age of sales force recruits. That is, carriers with revenues of $23 million or more spend about 30 percent of their training programs discussing selling issues. This carrier group also has the highest proportion (29 percent) of new sales personnel between 20 and 29 years of age. These younger people are less likely to have previous sales experience and must therefore be trained more thoroughly with respect to selling techniques.

The multiple regression results denote that amount of training content devoted to operations is significantly related to firm size and operating ratio. The negative firm size coefficient indicates that larger firms spend less time on operations than do the smaller firms. The negative coefficient for operating ratio establishes that firms with higher operating ratios spend less time on operations than do firms with lower operating ratios. This finding may be an indication that the less profitable firms need to spend additional time on operations in their training programs in order to improve their service reliability.

The results concerning the content of sales force training programs currently used by general freight carriers is not surprising given the new competitive environment. The training programs emphasize three components (selling techniques, operations, and pricing practices) that are critical to successful selling in the new environment. Salespeople must use effective selling techniques and develop pricing alternatives that are plausible and profitable given known potential constraints.

V. SUMMARY

This paper has investigated the sales force management activities of general freight carriers by examining their recruitment, selection, and training practices. The results provide significant support for the belief that carriers have already changed or intend to change significant aspects of their sales force management activities as a response to the new post-MCA competitive environment.

Indeed, the significantly greater reliance by large carriers than by small carriers on advertisements, customers, and universities as recruiting sources suggests that the larger firms are making a concerted effort to recruit salespeople who have advanced technical skills as well as those with more thorough knowledge of customers based on direct experience. Both of these skills are critical for the development of an effective sales force in a competitive environment.

Additionally, the results show that a significant portion of the carriers intend to add various psychological tests to their selection criteria in an effort to

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be more scientific and systematic in obtaining salespeople whose skills are highly compatible with the stressful competitive environment in which the carriers now find themselves.

Furthermore, the results indicated that the larger, more geographically dispersed carriers devote a significantly larger share of their sales force training program to pricing than do the smaller more geographically limited carriers. It is reasonable to expect the larger carriers with extensive operations to have a wide range of customers with specific price/service needs and, as a consequence, a need for salespeople with much more extensive training in pricing.

While these results support the notion that carriers are modifying sales force management activities in response to the new competitive environment, they clearly show that the larger carriers with extensive geographic operations are adapting significantly more quickly than are the smaller carriers with less extensive operations.

The recruitment and selection information indicates that carriers with high operating ratio are more likely than are carriers with lower operating ratio to experiment with a variety of the available techniques. While the willingness to change in the face of difficulties is positive, it may also indicate a lack of strategic focus on the part of these less profitable carriers. This lack of strategic focus, as pointed out by Porter, generally leads to less profitable operations than firms with a defined strategic focus.

There are other additional lines of investigation that follow from this initial inquiry. Further research could focus on compensation and motivation issues. In addition, the effectiveness of particular sales force management techniques could be investigated. Given that personal selling is recognized to be an important element of the marketing mix in a service industry, knowledge about sales force management issues should allow motor carriers to develop a more comprehensive and cohesive marketing program. Improved personal selling will permit motor carriers to increase their customer base, which should go a long way to insuring survival in the turbulent post-MCA environment.

ENDNOTES

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