

Sales-force issue	Relevant decisions	Descriptive model	Normative model
Sales-force size and resource allocation	Determine sales-force size Allocate sales-force effort to market segments and products	Sales-response models describe how selling effort affects the sales for market segments and products	Usually nonlinear programming models that maximize 3 to 5 year profitability for alternative sales-force sizes and product and market allocations
Sales-territory design	Assign accounts or geographic units to salespeople	Models calculate coverage, disruption, and profit impact of alternative assignments	Usually integer programming models that maximize coverage, minimize disruption, or maximize profit
Incentive compensation	Design incentive plan	Nonstandard models relate incentive compensation plans to company sales and profits, for example, disaggregate models link plan elements with each salesperson's utility for time and money, and sales response models link each salesperson's call effort with territory sales to develop the aggregate relationship	Nonstandard models, for example, individual utility-maximizing time-allocation models feed aggregate sales-response maximizers

Table 1: These sales-force issues lend themselves to implementable descriptive and normative modeling initiatives.

Effort Drives Sales

That marketing investment drives sales is a fundamental principle supported by data (Figures 1 and 2). Most executives believe this principle, yet they sometimes use decision rules that run counter to its premise:

—While addressing his divisional vice presidents of sales, a CEO of a Fortune 50 firm stated that last year he “cut the total company sales-force size and sales went up.” He did not allow any of the divisions to increase their sales forces and cut most of them. Will sales go up even further if

he cuts the sales force again?

—Having completed a rigorous model-based analysis, a national sales manager made the following recommendation to his division president: “We need more salespeople, a 10 percent increase in size, and I project that we can increase revenues by five percent.” The president’s response was, “So you think that you can increase revenues by five percent? Do it! But keep the head count the same—just get 10 percent more efficient.” What an outcome—the president increased the sales manager’s revenue goal without increas-