

The Comprehensive Effects of Sales Force Management:  
A Dynamic Structural Analysis of Selection, Compensation, and Training

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**Abstract**

This paper provides a comprehensive model of an agent's behavior in response to multiple sales management instruments, including compensation, recruiting/termination, and training. The model takes into account many of the key elements that constitute a realistic sales force setting; allocation of effort, forward-looking behavior, present-bias, effectiveness of training, and employee selection and attrition. Combined, the paper provides insights on how employee training, asymmetric information, and various compensation components affect selection and performance of heterogeneous sales agents. In addition, the paper provides a key methodological contribution. We provide formal proof that, under a multi-period quota-based compensation scheme, an agent's discount factor is non-parametrically identified, using field data. The key to identification is that an agent's distance-to-quota affects only the future payoffs in non-bonus periods, providing exclusion restrictions on current payoff. Also, we provide conditions under which a hyperbolic discounting model is identified.

Key words: personal selling; sales force compensation; present-bias; selection; dynamic structural models.