Krishnan, Trichy V.; Jain, Dipak C.
Optimal dynamic advertising policy for new products. (English) Zbl 1232.90239

Summary: Advertising is one of the key marketing tools managers have at their disposal to influence their customers into purchasing a new product. The overall objective of new product advertising is to inform and persuade customers. Drawing up an advertising plan for a new product that is under the influence of diffusion phenomenon is not an easy task. Hence, research in this area is very limited. In our research, we use an empirically proven diffusion demand function that explicitly incorporates the advertising component. Our results suggest that optimal advertising is determined by the advertising effectiveness, discount rate, and the ratio of advertisement to profits. Depending upon the interplay among these factors, the optimal advertising takes decrease-increase, increase-decrease, monotonically increasing or monotonically decreasing shape.

MSC:
90B60 Marketing, advertising
90C39 Dynamic programming

Keywords:
dynamic programming; optimal control; new products advertising

Full Text: DOI