

Evaluation of Yield Management with Randomized Controlled Trial (A/B Testing)

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This study proposes a method to evaluate yield management through sales slot control for discount railway tickets using a randomized controlled trial (A/B test). Implemented on an operating railway line, this method empirically shows how sales slot adjustments influence revenue. The results demonstrate that the appropriate strategy is time-dependent: in certain periods, increasing slots stimulates demand and boosts revenue, while in others, decreasing slots suppresses down-selling for a similar positive effect. As the first published case of A/B testing for yield management in the Japanese railway industry, this paper provides a practical framework for implementation and analysis.