

Learning and Acting Upon Customer Information:
An Empirical Application to Service Allocations with Offshore Centers

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Abstract

Ever since the 1990s, the role of call centers has been transformed from a cost to be minimized to a crucial element that performs integrated marketing functions. Call centers have become among the most crucial corporate assets to grow customer relationships and firm profits.

Using customer call history data from a DSL service, we empirically study how service duration and customer retention are affected by customers' onshore and offshore service experience and parameterize the relationship among service allocation, service duration, and customer retention. We then formulate firm's call allocations as a matching problem in which the firm learns about heterogeneous customer preferences, balances the trade-offs between short-term service costs and long-term customer reactions, and makes optimal service allocations that maximize long-term profit.

On the basis of the estimation results, we conduct simulations to derive the optimal service allocation decisions. We demonstrate that learning enables a firm to make more "customized" allocations that are tailored to customer preference. And acting on long-term marketing consequences prompts the firm to make "proactive" decisions that prevent customers from leaving. We show that with integrating learning and acting on customer information, the derived optimal allocation decisions (1) reduce service costs, (2) improve customer retention, and (3) enhance profit.