PRODUCTION AND OPERATIONS MANAGEMENT

POMS

Vol. 19, No. 6, November–December 2010, pp. vii–ix
ISSN 1059-1478 | EISSN 1937-5956 | 10 | 1906 | 0vii

DOI 10.3401/poms.1080.01087

Management Insights

Operations in financial services – An overview
Emmanuel D. (Manos) Hatzakis, Suresh K. Nair, Michael L. Pinedo

Financial services are unique to the degree in which they are intertwined with customers' sense of security, well-being, and worth. There are many surveys in the literature on services in general, but none on operations in financial services. With the importance of financial services in the economy, and because financial services are very different from other services, Hatzakis, Nair and Pinedo attempt to bridge this gap. The literature on general services is primarily focused on the single service encounter, "the moment of truth." However, financial services are characterized by long-term, contractual relationships between customers and firms and these relationships entail repeat encounters, such as multiple billing enquiry calls, monthly billing, or worker's compensation case management over several months or even years. These and other characteristics that are unique to financial services make designing, planning, and managing them different from general services. Operations management literature has focused on a few of these topics that also have application in general services, such as waiting lines, and workforce scheduling. A number of other processes that are unique to financial services have begun to be examined; these and still more await rigorous research and new tools and techniques. These are highlighted in the overview.

Analysis and improvement of information-intensive services: Evidence from insurance claims handling operations
Uday M. Apte, Richard A. Cavaliere, Shailesh Kulkarni

Apte, Cavaliere, and Kulkarni present empirically grounded descriptive and prescriptive frameworks for the analysis and improvement of information-intensive services (IIS). The descriptive framework provides a structural roadmap used to analyze the service creation and delivery process of IIS and determine the performance drivers and management-adjustable process indicators for improving operational performance. The descriptive framework motivates the prescriptive framework which provides an action plan that can lead to systemic improvement in the overall service outcomes in IIS.

Insurance claims operations managers currently have scant help available in the form of analytical models and prescriptive methods to guide them in their operational activities. The authors use the claims handling process as a context to illustrate and apply their proposed method for analyzing and improving information intensive services. They investigate the impact of various claim characteristics on performance metrics and find that attorney presence is the key performance driver that has the largest impact on process performance. They show that early claimant contact can significantly reduce the chance of attorney presence. Consequently, by taking the preemptive action of early claimant contact, the insurers can favorably impact performance metrics. Similarly, managers of other IIS can implement the authors' general method to improve their operations.

Management Insights: Are self-service customers satisfied or stuck?
Ryan W. Buell, Dennis Campbell, Frances X. Frei

Ryan Buell, Campbell, and Frei investigate how satisfaction and switching costs contribute to retention among self-service customers. This is an important issue in the financial services industry where considerable investments have been made in developing, and migrating customers to, self-service distribution channels. Numerous studies in the services literature have demonstrated that self-service customers are retained with greater frequency than their full-service counterparts. There are two competing explanations for this phenomenon. Self-service channel usage either promotes customer satisfaction and in turn, loyalty, or it imposes switching costs on customers that make it more difficult for them to defect. The authors found that retained customers in self-service channels may be stuck, not satisfied. Dissatisfied customers held captive by switching costs spend less money and are notoriously difficult and expensive to serve. This suggests that in the near-term, there may be hidden performance costs associated with self-service strategies. Moreover, switching cost-imposed stickiness may not be indefinitely sustainable. Despite the potentially negative long-term implications of switching cost driven retention, the authors do not intend to suggest that firms should abandon self-service

offerings. On the contrary, numerous studies including this one support the idea that self-service technologies enhance the satisfaction of certain customers. Their findings are consistent with the idea that customers tend to optimize channel selection to maximize their own satisfaction. Hence, self-service offerings should remain available, but customers should not be forced to use them.

Optimizing the collections process in consumer credit
Adiel T. De Almeida Filho, Christophe Mues, Lyn C Thomas

The management of the debt recovery process for consumer loans that have defaulted has not received much attention in the past because data on the process was rarely kept and psychologically management did not like focusing on perceived failures. The advent of the Basel Accord with its requirement to estimate recovery rates on all loans and the increase in the importance of consumer defaults because of the global financial crisis has meant these difficulties have disappeared. Adiel De Almeida Filho, Mues, and Thomas show how one can use the data on the actions undertaken and the repayments made in the collections process to improve the amount of debt recovered. Their model optimizes the collection process in consumer credit. It determines which collections actions should be undertaken and how long they should be performed. This is also useful in determining the manpower requirements in the recoveries department by working out how many staff are needed and what skills they require since the different recovery actions need different legal and communication skills. The model is applied to data from a European bank to show how it can be used in operation.

A depository institution's optimal currency supply network under the Fed's new guidelines: Operating policies, logistics, and impact
Mili Mehrotra, Milind Dawande, Chelliah Sriskandarajah

In the United States, the Federal Reserve (Fed) provides currency services to Depository Institutions (DIs) to meet the public's demand for cash. Over the years, the Fed has had to significantly increase its budget for providing these services and, in particular, for fit-sorting used cash. The Fed perceives that the primary reason for the increased spending is the lack of recirculation of cash by DIs. More specifically, the Fed believes that DIs are relying on the Fed to fit-sort a substantial amount of cash that the DIs should normally have fit-sorted themselves and recycled to their customers. This overuse of the Fed's fit-sorting services is characterized by cross-shipping, a practice in which the same DI deposits and withdraws cash of the same denomination in the same week. With the intention to encourage private-sector behavioral changes that would lower the overall societal cost of cash processing by curtailing overuse of a free governmental service, the Fed has proposed its new cash recirculation policy that came into effect from July 2007. The primary components of this policy are (i) a recirculation fee on cross-shipped cash and (ii) the custodial inventory program.

Mehrotra, Dawande, and Sriskandarajah address the problem of obtaining an efficient operating policy for a DI for managing cash under the Fed's new policy. Their model considers the nature of demand and supply of cash, number and locations of the processing centers that fit-sort cash, and the resulting fit-sorting, holding, and transportation costs. In addition to a set of ''good'' operating policies, along with their respective domains of optimality, the authors also quantify the monetary impact of fit-sorting and custodial inventories on a DI and assess the extent to which the Fed will achieve its goal of reducing cross-shipping.

Optimal configuration of a service delivery network: An application to a financial services provider
Geoffrey A. Meester, Anuj Mehrotra, Harihara Prasad Natarajan, Michael J. Seifert

How should a firm that is planning to outsource its call center operations evaluate and select vendors? As outsourcing trends continue in the financial services industry, managers are increasingly confronted with this important question. While many third-party vendors run call centers that can deliver services at a high quality, they differ in costs, skill-set, revenue-generating abilities, and incentives such as volume discounts. So, an outsourcing firm is faced with the task of determining vendor assignments to carefully match the vendors' capabilities vis-à-vis the firm's service requirements, while maximizing the expected profits from the partnership. This is a challenging and economically significant decision problem for firms in the industry.

Meester, Mehrotra, Natarajan, and Seifert developed and applied a mathematical model to address this service network configuration problem for a Fortune 500 financial service firm to provide insights on how companies may optimally configure their networks to increase profits. The model is versatile and can accommodate many contextual considerations and auxiliary objectives. It can help outsourcing firms evaluate prospective vendors' quotations and support negotiations of contractual terms.

Revenue management through dynamic cross-selling in call centers
E. Lerzan Örmeci, O. Zeynep Aksin

Cross-selling is an important customer relationship tactic used by financial service companies. The questions of what product to offer, to which customer, at what time has received a lot of attention in marketing research, mostly from a value generation perspective. Technology plays an important role in understanding value by enabling the capture of customer related data and the processing of this data.

Örmeci and Aksin focus on cross-selling in call centers where the operational implications of cross-selling in terms of capacity usage are of critical importance, and thus they need to be considered jointly with value generation. Marketing and operations issues are combined in the analysis by modeling revenue generation from cross-selling to manage call center capacity optimally. This has resulted in a heuristic control rule that is threshold based, requires less system information than the optimal control, and is shown to perform well in a wide array of settings. An extensive numerical analysis demonstrates how the performance of dynamic cross-selling is tied to staffing at the call center and to revenue information availability. The analysis identifies environments where simpler technology and/or simpler controls can be used without sacrificing revenue performance.

Analysis of two-level support systems with time-dependent overflow — A banking application
Wolfgang Barth, Michael Manitz, Raik Stolletz

Barth, Manitz, and Stolletz analyze the performance of call centers of financial service providers. The call center of a bank consists of two stages, a front-office and a back-office. In the front-office the customers receive basic services. A fraction of the served customers requires special service, which is provided by the back-office. The special feature of the call center is a time-dependent overflow from the front-office queue to back-office agents if a given waiting-time limit is reached. This overflow only applies, if at least one back-office agent is available. The waiting-time limit is an important managerial decision variable to control the performance measures for the front-office and the back-office. Numerical examples show the sensitivity of the performance measures on the waiting time limit and on the load of the system. It shows that the waiting-time limit can be used to control the service level, especially in situations with a high load in the front office.

Improving right party contact rates at outbound call centers
Srinivas Bollapragada, Suresh Nair

Credit card issuers have collection centers across the country to collect outstanding balances from delinquent customers. Their main strategy is to telephone such customers and request payment. Automated dialers are used to make calls, and when a call goes through, it is directed to one of several hundred associates staffing computer workstations. It is important to contact the account holder in order to discuss payment options. Simply getting someone on the line is not sufficient, since such calls would require follow-up calls. The objective of efficient collections is to maximize dollars collected while minimizing costs, which generally translates to making a ''right party contact'' in the minimum number of attempts. We developed and tested an algorithm that increased the right party contact rates by over 10%. This increase translates to annual savings of several million dollars for an average credit card company. Our algorithm uses call history to maintain and update the likelihood of contacting customers by hour through the day and the week. It then uses these likelihoods of contact to schedule calls to maximize contact rates while accounting for staffing constraints. Though the focus of our work is collections, the method developed is also applicable to telemarketing.