UNIVERSITY OF MANNHEIM
Business School

CHAIR OF SERVICE
OPERATIONS MANAGEMENT
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Master Thesis Proposal

Managing Customer-Induced Variability in Services

Customers impose considerable variability on the operating systems of service organizations. They show up when they wish (arrival variability), they ask for different things (request variability), they vary in their willingness and ability to help themselves (effort and capability variability), and they have different preferences (subjective preference variability). On the one hand, variability may be desirable from a customer perspective if customization is valued. On the other hand, variability often leaves the front lines of many service organizations struggling to deliver consistent, high-quality service.

These challenges were visible for example in the Eastern Lotus Bank in 2019. At this time, the general manager of the Xiamen branch of Eastern Lotus Bank was facing difficulties overcoming customer-introduced variability, which significantly influenced the efficiency of the bank's front-office service. She needed to analyze and summarize the different types of customer-introduced variability. Then she had to identify potential strategies that would enable the bank to accommodate this customer-introduced variability while maintaining a high-quality customer service experience. She also needed to decide how to allocate and arrange the limited human resources at the bank efficiently and effectively. To make these decisions, she had to systematically evaluate the efficiency and effectiveness of the front office under both pooled- and separated-resource allocation scenarios. For instance, how long did customers have to wait for services in each different resource allocation scenario? Moreover, how well were the limited human resources (staff) utilized under each scenario?

The tasks and objectives of the master thesis are to

- Review the academic literature with regard to different types of variability that service providers typically need to manage.
- Explore suitable tools such as queuing theory and simulation as well as common strategies to manage variability in service systems.
- Apply the concepts and tools to analyze the case of Eastern Lotus Bank (Wu, Pun & Zhu 2019) and make recommendations on how to improve the service.

Requirements

- OPM 7xx
- Good knowledge in Operations Management
- Analytical skills

Administrative information for writing a master thesis at the Chair of Service Operations Management can be found [here](#).

Selected Literature Recommendations

Bordoloi, S., Fitzsimmons, J. A., & Fitzsimmons, M. J. (2022). Service management: operations, strategy, information technology. 10th Edition (international), McGraw-Hill.

Buell, R. W., Campbell, D., & Frei, F. X. (2021). The customer may not always be right: Customer compatibility and service performance. Management Science, 67(3), 1468-1488.

Wu, C., Pun, H., & Zhu, X. (2019). Eastern Lotus Bank, Xiamen: Service Operations Management. Ivey Publishing Case Study, Harvard Business Publishing Case No. W19319. https://hbsp.harvard.edu/product/W19319-PDF-ENG

DeCroix, G., Long, X., & Tong, J. (2021). How service quality variability hurts revenue when customers learn: Implications for dynamic personalized pricing. Operations Research, 69(3), 683-708.

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Frei, F. X. & Morriss, A. (2012). Uncommon service: How to win by putting customers at the core of your business. Harvard Business Press.

Law, A. M. (2015). Simulation modeling and analysis (5th edition). New York: Mcgraw-Hill International Edition

Sampson, S. E., & Chase, R. B. (2022). Optimizing customer involvement: how close should you be to your customers?. California Management Review, 65(1), 119-146.

Secchi, E., Roth, A., & Verma, R. (2019). The impact of service improvisation competence on customer satisfaction: evidence from the hospitality industry. Production and Operations Management, 28(6), 1329-1346.

Wirtz, J., & Zeithaml, V. (2018). Cost-effective service excellence. Journal of the Academy of Marketing Science, 46, 59-80.