# Extant Literature On Service Mapping

**Linden, R. (1993). Business process reengineering: Newest fad or revolution in government? *Public Management,* *75,* 9-13.**

Over 25 years ago, the management trend of business process reengineering (BPR) took hold and promoted new ways of structuring and thinking about organizations. Customer service is not a single activity; instead, it is a combination of practices in the areas of technology, organization strategy, and employee policies.

Principles of BPR include the following:

1. Specify parallel processes rather than sequential. Start at the end and work backward. Ask: “What is the deliverable that this process must produce?”
2. Bring what is needed to achieve the outcome to the customer at the start.
3. Provide a single point of contact to customers to ensure that no one gets lost.
4. Capture information once, at the source.
5. Ensure continuous flow of the chain of activities that adds value for the customer.
6. Organize everything around the desired outcome; not around functions within the organization.
7. Demand to know why paper enters the system as opposed to using technology, face-to-face communication, and trust.

**Ries, B.S., Boyle, L.N., Vavilala, M.S., Kannan, N., Saxe, H., Kernic, M.A., Rivara, F. P., Zatzick, D.F., Bell, M.J., Wainwright, M., Groner, J.I., Giza, C.C., Ellenbogen, R. G., Mitchell, P., Wang, J., & Mink, R. (2013). Assessing clinical care using interactive value stream mapping. *Proceedings of the Human Factors and Ergonomics Society 57th Annual Meeting,* 1536-1540.**

Pilot testing on a value stream mapping (VSM) application in a health care setting showed the challenges that make it difficult to use VSM efficiently. This challenge of time could be attributable to customers, families, regulators and the professionals. Process challenges include short cycle times, non-standardized steps in the process, waiting times confused by observation time by professionals, emergencies that take priority in the specific environment. Standardizing the clinical processes help to clarify the causal relationship between the treatment methods used on patient outcomes in a systematic manner.

**Flumerfelt, S. (2013). Using the lean value stream map to connect the dots. *Government Finance Review,* *29,* 72-75.**

Failure to understand the organization’s mission and to engage with it in the context of daily work is a common problem. When the mission no longer guides an individual employee’s work, processes lose potential for creating value. Using the value stream map, organizations can examine and improve work processes by looking at 1) stakeholders’ needs and 2) what service results from the process. It is common to find that the customer who is not recognized in the organization’s mission statement is driving the process, and to see that a process has no flow or too many redundant steps. When charting a ‘future-state’ map, organizations can question what will be different and how it will be different.

**Pigni, F., Piccoli, G., & Watson, R. (2016). Digital data streams: Creating value from the real-time flow of big data. *California Management Review,* *58,* 5-25.**

Organizations rely increasingly on data to determine and meet customer needs. These data influence the ability to create value for the customer when looking at factors of its availability and timing. Digital data streams (DDS) offer a wider view of the customer and new information services by enabling real-time processing and response. Authors assert that by looking at data streams surrounding a customer experience, it is possible to infer customer motive for seeking a transaction/decision-making as well as to forecast demand (i.e., predictive analytics). Managers should first identify promising events -- streamability aids in the critical prioritization to extract value from worthy events. DDS provides a foundation for improving organization systems because it enables the controlled sharing of data among individual organizations that do not want to give up control of its data that contributes to the coordination/integration actions for a specific customer experience.

**Patricio, L., Fisk, R. P., e Cunha, J. F., & Constantine, L. (2011). Multilevel service design: From customer value constellation to service experience blueprinting. *Journal of Service Research,* *14,* 180-200.**

Service design is a new field that has emerged from four areas of attention: the growing complexity of service systems, multichannel services, customer co-creation of service experiences, and the need for interdisciplinary methods. The multilevel service design (MSD) method studies the customer experience and those design solutions that contribute to the desired customer experience. A **service concept** is created so that the services offered to the customer and the links with partnerships established with other organizations in the network show the value proposition in the broader context of the value network in which it is embedded. There are three components that help a customer navigate across the service system architecture:

1. Each service task offers an interface mix that enables customers to choose their preferred service interface.
2. Each interface enables customers to move smoothly through different tasks of the service activity.
3. Each service offering needs to be unique with no redundancies across every service interface.

By creating a multiservice design model, organizations can visualize how service system elements (customer, service interfaces, backstage components, IT data systems) are integrated to co-create value throughout the different service encounters of the service experience.

**Lages, C.R., & Piercy, N. F. (2012). Key drivers of frontline employee generation of ideas for customer service improvement. *Journal of Service Research, 15,* 215-230.**

The major driver of ideas for improving customer service is an employee’s ability to read customer needs. Other drivers identified in this study are an employee’s organizational commitment and job satisfaction. Organizations are encouraged to invest in creating work environments that encourage and reward the flow of ideas for service improvement.

**Ding, D. X., Hu, P. J., Verma, R., & Wardell, D. G. (2010). The impact of service system design and flow experience on customer satisfaction in online financial services. *Journal of Service Research, 13,* 96-110.**

The goal of experience design (i.e., when a provider intentionally uses services to engage customers in a way that creates a memorable event) is to create a compelling experience that can be measured and analyzed based on flow experience (Csikszentmihalyi, 2000). This design depends on a customer’s sense of control and the level of challenges associated with using a system or the services it supports (e.g., self-efficacy and belief that person can influence an event; skill and ability to perform/engage in an activity; focused attention and engage as co-producers; compelling interactivity; challenges that promote a sense of enhanced action). Any service flow process needs to consider design choices and contingencies that affect customer experiences created by different servicescapes. Brokers should design customized services that a) balance skill and challenge, b) simplify the service process, c) enhance self-efficacy opportunities, and d) immerse customers in active, compelling interactions.

**Tax, S.S., McCutcheon, D., & Wilkinson, I.F., (2013). The Service Delivery Network (SDN): A customer-centric perspective of the customer journey. *Journal of Service Research, 16,* 454-470.**

The ‘customer journey perspective’ views service encounters as interactions embedded in a series of exchanges that may extend over a considerable period of time and with a variety of providers contributing to the experience. This perception leads to the introduction of a service delivery network (SDN) perspective whereby customers encounter multiple providers who limit the range of its own services or contract/outsource service elements. The customer, in the SDN, is unaware of the contributions made to the final service by the network of suppliers. The service providers thus decide whether to pressure customer choice by restricting its customer’s selection of providers so that it can manage the customer’s experience more effectively and establish a closer relationship with the customer. Dimensions of aggregated SDNs are a) formality; b) transactional vs. relational goals; c) degree of freedom in selecting providers; and d) complexity of the overall service offering.

**Moeller, S. (2008). Customer integration—A key to an implementation perspective of service provision. *Journal of Service Research, 11,* 197-210.**

Customer integration is the incorporation of resources from customers into the processes of an organization. The three stages of service provision -- facilities, transformation, and usage -- emerges as an implementation perspective related to customer integration. As customers and network partners engage in co-creation and co-production actions, increased knowledge and information flow results. This knowledge is a fundamental source of competitive advantage for an organization. **Organizations willing to compete through service are encouraged to collaborate with customers and partners to enhance organizational knowledge.** The transformation of resources is the key element of any service provision.