

# Chapter 7

## Service Capability Analysis as a Contribution to Co-Creation

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### ABSTRACT

*Value co-creation emerges from the interaction between customers and firms, being the customer an active player in the established interaction. This brings the customers to the core of the measurement system, not allowing a traditional process capability analysis as usually performed. This chapter addresses the development of a service capability index, taking into account customer's expectations, customer's perceptions and service performance. This index is based on the "zone of tolerance" and it gives a perspective on value co-creation effectiveness. A methodology for converting perceived performance into real performance is proposed, including a procedure to assess the levels of adequate and desired service. An approach inspired on the Quality Function Deployment (QFD) is presented, promoting the ability for converting customer's expectations into operational terms and extending the methodology to situations with several customer's requirements and various operational characteristics. Different approaches are considered for outcome-related features and process-related features.*

### INTRODUCTION

The emergence of service-centered dominant logic (S-D logic), in contrast with the goods-centered dominant logic, brought an important focus on firm-customer interaction, transforming customers into "active participants in relational exchanges and co-production" (Vargo & Lusch, 2004). Value co-creation – a key aspect of S-D logic – is strongly focused on interaction, as discussed in Gronroos (2012), who introduced the concept as "a joint collaborative activity by parties involved in direct interaction, aiming to contribute to the value that emerges for one or both parties". Even in environments characterized by a technology-enabled value co-creation, the interaction plays a major role (Breidbach & Maglio, 2016).

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Furthermore, as mentioned by Agrawal and Rahman (2015), “the customer as an active player in value co-creation could enhance the efficiency and effectiveness of the value creation process”.

Under this perspective, value is perceived and determined by the consumer on the basis of “value in use” (Vargo & Lusch, 2004), which means that value only occurs when the offering is useful to the customer or beneficiary (Lusch & Nambisan, 2015).

Regardless of whether one is referring to goods or services, measurement plays a major role in management decisions, from several perspectives.

The conceptual measurement system is quite different between goods and services. The interaction between customer and service providers is usually much larger than the interaction between customers and product suppliers. In S-D logic, the customer assumes the role of an active player in the service delivery interaction, unlike typical goods-dominant transactions.

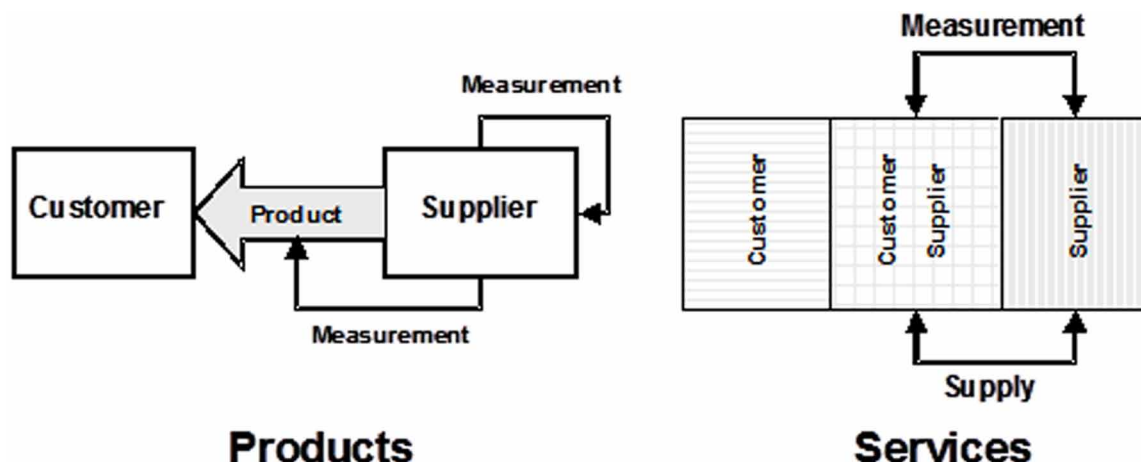
In fact, as regards goods production, the measurements are performed within the production process and on the final product. Therefore, these measurements are performed away from customers. Alternatively, when production and consumption occur simultaneously, as is typical of service provision, customers become part of the production process, and inevitably part of the measurement process (Figure1). This represents an important constraint to the utilization of the classic indices to assess process capability in services), as will be demonstrated in the sequel.

The common indices utilized in process capability analysis, within the framework of quality engineering, are based on the assumption that both the process performance and the specification limits use the same units of measurement. In fact, this is an obvious pre-requisite for the calculation of those indices.

However, this assumption is not compatible with a co-creation perspective since it does not reflect the customer’s input regarding value creation.

In some way, this is also reflected in the distinction between internal measures, which come from technical and operational records, and external measures, that are directly obtained from customers. This distinction and the importance of assuring a proper interaction among those measures is supported by Johnston (2005) that refers to the importance of assuring a match between service quality as the operation delivers and service quality as perceived by customers. For instance, the time for answering a phone call can be monitored by a company, which would be a service characteristic measured by “the operations”.

*Figure 1. The measurement system of products and services*



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