

## Service Productivity

Productivity is a concept used to manage production efficiency in manufacturing. It is normally stated in a simplified form as the effective transformation of input resources into outputs, with a constant quality assumption. In services, productivity is related to how effectively input resources in a service process are transformed into economic results for the service provider and value for its customers. However, the problem with being an effective service organization is that productivity and perceived service quality are inseparable phenomena. Improving productivity may have a neutral or positive impact on service quality, but equally well it may reduce perceived service quality. If the latter happens, customer satisfaction with quality declines, customer value goes down, and the risk that the firm will lose customers increases.

With another resource structure of customer participation, the service firms could cut costs and still produce as much as previously. Sometimes productivity and perceived service quality can be improved simultaneously. With the enablers of technology, production system using resources in a new way or altered customer participation pattern can contribute to better productivity and improved service quality. For examples, companies establish call centres for customer service, so that customers should interact over the telephone instead of by visiting service employees in person. Banks are motivating their customers to use ATMs, internet and their mobile phones to take care of regular bank transactions instead of sending cheques or coming to a bank in person taking up the bank employees' time. The reason for these initiatives is to shift from more expensive resources in the service process to more cost effective resources. If customers perceive that they get the same or better quality than before, these initiatives will be successful and the service firm's revenue-generating capability will improve. In such cases, productivity has clearly enhanced.

However, cost-cutting changes in the resources used may also have the opposite effect. They may create a servicescape and service process where the perceived service quality deteriorates, and customers become dissatisfied with the value they get and start to look for other alternatives. In this case, as less value for customers than before is created, the service provider's revenue-generating capability declines. The obvious conclusion is that in service contexts, productivity cannot be understood without simultaneously considering the interrelationship between productivity and perceived service quality given the unique characteristics of services unlike products.

Unique characteristics of services include its intangibility, heterogeneity, inseparability of production and consumption, and perishability. Because of these unique characteristics of services, the management of external efficiency of the output (i.e. the firm's capability to produce perceived service quality with a given resource structure) has to be an integral part of a service productivity concept. It is meaningless to develop a service productivity concept based on the management of internal efficiency and quantity of output only. Another consideration of service productivity is the management of demand or capacity efficiency. Service providers cannot use inventories to cope with excess capacity or demand, as a manufacturer of physical and tangible goods will be able to do so. Thus, by reformulating productivity as not only an internal production efficiency concept but as a function of both internal and external efficiency, as well as of efficient utilization of capacity, it gives more meaning to the concept of service productivity.

### **Service Productivity = $f$ (Internal Efficiency, External Efficiency, Capacity Efficiency)**

The outputs of the service process are twofold: (i) quantity of output (volume) and (ii) quality of output (process and outcome). Because of the unique characteristics of services, the quality of the output is partly manifested in the process (interaction-induced quality) and partly in the outcome of the process (outcome-induced quality). The better the perceived service quality that is produced using a given amount of inputs from customers and service staff, the better the external efficiency is, resulting in improved service productivity. On the other hand, if the available inputs are functioning in a less service-oriented way or the resource structure is altered that impairs quality, external efficiency is reduced, lower perceived service quality and less value are probably produced for the customers. This has a negative impact on service productivity.

To sum up, internal efficiency and the cost effective use of resources is one side of service productivity. External efficiency and the revenue-generating capability following the use of resources is another side of service productivity. In addition, efficient utilization of resources so that demand and supply continuously meet as well as possible also has an impact on service productivity.