

Performance assessment of service operations using DEA and managerial judgement: a case study

Chwen Sheu, 楊振隆

Technology Management

Management

clyang@chu.edu.tw

Abstract

Performance measurement of service operations has unique challenges compared to that in manufacturing operations. Using the insurance claims settlement as an example, this study discusses the complexity of conducting performance measurement for service operations. Data Envelope Analysis (DEA) is then applied to assess the relative efficiency of fourteen regional offices of a U.S. insurance company regarding its efficiency in settling insurance claims. Our research emphasis is on how a quantitative method like DEA could assist the existing measurement systems that rely heavily on managerial judgment. The results indicate that the combination of the two methods, quantitative and qualitative, produced a more reliable performance assessment. Accordingly, we discussed the value of using DEA for guiding the improvement efforts along with limitations of its use for assessing the performance of settlement operations. We concluded that DEA can and should complement but not replace existing experience-based management evaluation.

Keyword : Performance measurement, productivity, DEA, service operations, insurance industry