

Cost Estimation for Healthcare Service Delivery

Sang-Oh Shim

Professor of Business Administration

Hanbat National University

Daejeon, 34158, South Korea

soshim@hanbat.ac.kr

Abstract

In this study, we develop a cost estimation model for healthcare service delivery and introduce the design concept of an integrated healthcare system for collaboration between remote facilities. Lifelong care for chronic diseases necessitates regular monitoring by physicians, extending beyond routine medical examinations. Focused on the healthcare service scenario tailored for chronic disease care, our paper not only proposes a cost estimation model but also outlines a service system design for the investigated healthcare management. The cost model is crafted by predicting utilization and attendant costs, employing a stochastic model—specifically, a Markov process. Furthermore, this paper presents a system design concept for healthcare services, showcasing a remote collaboration framework between home and hospital. The analysis of medical data occurs within the cloud-based healthcare environment, emphasizing the potential of integrated and collaborative approaches in healthcare delivery.

Keywords

Service Delivery, Cost, Healthcare

Biography

Sang-Oh Shim joined Hanbat National University in 2009, serving as the Chair of Business Administration at the institution recently. Before his appointment at Hanbat National University, he completed his postdoctoral studies at the Ross School of Business and Industrial Operations Engineering at the University of Michigan. Furthermore, he held the position of Senior Engineer at Samsung Semiconductor Company. His research endeavors span various areas, including Production Management, Semiconductor Operations, Quality Management, and Supply Chain Management. Dr. Shim's commitment to advancing these fields is evident through his diverse experiences in both academia and industry. With a focus on these key areas, he contributes significantly to the academic and practical aspects of his role at Hanbat National University.