

Using signed distance and order statistics method for fuzzy evaluation of service quality

Tien-Tsai Huang^{1,2, *}

Wen-Tao Huang¹

¹ Graduate Institute of Management Sciences

Tamkang University

Taiwan

R.O.C.

² Department of Industrial Management

Lunghwa University of Science and Technology

Taiwan

R.O.C.

Abstract

Using signed distance for defuzzification and order statistics for measuring relative weight are applied in fuzzy evaluation of service quality. Many literatures reveal that service quality is usually evaluated by statistical method and also focused on one specific industry. The statistical method can estimate the mean of customers' satisfactory level of each evaluation factor and it can also show the priority factors of the service quality for improvement. However, the satisfactory level of evaluation dimension and aggregate evaluation results can't be achieved by using statistical method. In this study, the evaluation process is proposed to improve the drawbacks of common statistical methods. Furthermore, an illustrative example is given to verify the results and show its advantages.

Keywords : Fuzzy evaluation, service quality, order statistics, signed distance.

1. Introduction

Many researchers have undertaken the studies about the evaluation of service quality in many different service industries. It is found

**Correspondence author. Mailing address:* 3F-1, No. 167, Sec. 5, Minsheng E. Rd., Songshan District, Taipei City 10589, Taiwan
E-mail: normanbb@mail.lhu.edu.tw

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