

# Classifying Quality Attributes Using Service Gaps and Kano's Method

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**Abstract.** This paper attempts to compare the classification of quality attributes using Kano's method and the service gaps method proposed by Kong and Muthusamy (2011). Expectation and perception data from 80 articles were systematically reviewed. Only two articles with classification of quality attributes by Kano's method were identified. Four service quality factors were apparent from this study, and eight of the quality attributes were found to be the same by both methods. Service gaps could indeed be used to classify quality attributes, besides for evaluation of service quality and customer satisfaction.

**Keywords:** expectations, Kano's model, perceptions, quality attributes, service gaps, SERVQUAL

## 1. Introduction

Due to different perspectives, quality has acquired multiple meanings. As a result of different interpretations of quality, a few quality models have been developed to define and measure quality [1] and the impact of individual quality attribute of a product or service on overall satisfaction of a customer [2], namely the Kano's model [3], the total service quality model [4], the SERVQUAL or Gap model [5], and the expectancy-disconfirmation model [6]. Kano's model is based on the assumption of existence of nonlinear and asymmetric relationships between attribute-level performance of product/service and overall customer satisfaction. A few methods have been developed to determine quality attributes in Kano's model [7], including the Kano's method, penalty-reward-contrast analysis, importance grid analysis, qualitative data methods such as critical incident (CI) technique and analysis of complaints and compliments, and direct classification method (by respondents).

It was claimed that the Kano questionnaire and the direct classification method are the only approaches that are capable of classifying quality attributes in the design stage of a product or service [7]. The use of CI technique and analysis of complaints and compliments have drawbacks in identifying the types of quality factors and tracking their changes over time [8]. Moreover, CI technique and analysis of complaints and compliments have questionable reliability [7], even though they are valid for Kano's model.

A more sensitive monitoring and feedback mechanisms in terms of service quality was suggested in [8] to help companies to achieve the best perceived outcome from their quality improvement activities. The performance-perception model was developed and four types of quality factors were derived to explain the relationship between service performance and customer perceptions of that service performance [8]. This model was adapted by [9] where service performance was replaced with service gaps from the modified SERVQUAL instrument, and service gaps were used to classify quality attributes and show the apparent presence of the four quality factors in this model. Three additional examples from literature were presented in [10] to support the presence of four quality factors in the performance-perception model.

In this paper, systematic review methodology was employed to trawl articles with expectation and perception data, and two articles were identified [11, 12] with classification of quality attributes by Kano's method. An example was then presented using the data taken from [11] to compare the classification of quality attributes using service gaps method and Kano's method.

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