

The Rasch Model to Measure the Service Quality

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Abstract

It is known that the service quality is considered as a latent variable that derive from the combination of some others independent latent variables (*dimensions*) (Zanella 2001). The known variables (*attributes*), generally expressed by an ordinal scale (*items*), are observed through the administration of questionnaires to the users of the service, in order to measure those dimensions. Therefore questionnaires, like every measuring instrument, have to be calibrated. Statistical calibration is a procedure that permits to obtain the best approximation of the real measure as it eliminates the measurement errors.

In the survey about service quality the “calibration of questionnaire” would make understand what influences the opinion of subjects about the satisfaction on each attribute. Two factors randomly influence the propensity of a subject to one item rather than another: a specific *attribute factor* and a specific *subject factor* (Barsotti 2000). The last factor justifies the differences among subjects and, in this particular case, it constitutes exactly the measurement error that have to be eliminated.

In this paper it will be considered the Rasch model, a statistical tool arises from psychometric field, that allows examining the service quality through the known variables: for each of those an objective measure is obtained. In particular, the application of Rasch model will concern the quality of university teaching. Moreover it will be purposed a method to obtain a measure of total service quality by assembling the partial measures of the single dimensions.

References

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