

# MISQ Archivist

## Using Polynomial Modeling to Understand Service Quality in E-Government Websites

*Rohit Nishant, Shirish C. Srivastava, and Thompson S. H. Teo*

---

### Abstract

As e-government websites grow in functionalities and capabilities, there is a need to better understand the nuanced role of service quality to enable governments to better address citizens' online service needs. Such an understanding should help improve overall e-government use by citizens. Thus motivated, our paper investigates how users respond to the service quality perception–expectation gap in e-government websites. We draw on rational choice theory (RCT) to develop a theoretical model linking expected and perceived information systems (IS) service quality to continued e-government website use intentions. The proposed model is empirically tested using polynomial modeling and response surface analysis. Results indicate that, in contrast to the organizational context, for e-government websites, both agreement and disagreement between expected and perceived IS service quality are positively associated with continued use intention. In our sample, as high as 77% of respondents appear to be in the zone of tolerance, suggesting that users can tolerate wide variations in service quality before they consider seeking alternatives to e-government websites.

**Keywords:** Context, continued use intention, polynomial modeling, rational choice theory, response surface