

Researchers develop new method to measure IT quality

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Researchers at the University at Buffalo School of Management have proposed a better way of measuring the capabilities of IT service providers in a study recently published in *IEEE Transactions on Engineering Management*.

The study was conducted by Rajiv Kishore, associate professor, and H. Raghav Rao, SUNY Distinguished Service Professor, in the school's [Management Science](#) and Systems Department, and Matthew E. Swinarski, associate professor, and Eric Jackson, assistant professor, in the Sam and Irene Black School of Business at Penn State Erie, The Behrend College.

For many years, IT service providers have been judged using the Capability Maturity Model IntegrationSM (CMMI) framework developed at Carnegie Mellon University.

Kishore and his fellow researchers have proposed a variation in the CMMI framework for thinking about and measuring capabilities of IT service provider firms. They call it the Quality Distinction (QD) Capability Model, as quality is its main theme.

Building upon the CMMI framework, the QD model also acknowledges the high importance of regularly evaluating and adapting the development and delivery processes of an IT firm. This gives managers a better tool to measure the effectiveness of their firm's information technology capabilities.

"Our model can be used by managers in conjunction with CMMI to gain a more reliable understanding of their IT capabilities," Kishore says. "The high focus on quality in the QD model makes it easier for an IT provider to measure and validate the quality of its products and services."

Kishore says it's also an important signal to employees and customers that the firm values a culture of quality, and incorporates quality into their products and services at the outset.

Carnegie Mellon's CMMI framework is based on practical experience gained over the last two decades in actual [software](#) and IT project development work in a number of industries. But independent academic research has yielded inconsistent results across different studies with this model.

Because the new QD model is based in theory and also tested with survey data from IT services providers, the researchers believe that the results will be more consistent and, therefore, more beneficial to the companies who use this model to measure their process capability.

"One reason India has become so popular for outsourcing IT work is that many companies there are consistently certified as CMM Level 5, the highest CMM certification level," Kishore adds. "Companies that use the new QD model in conjunction with CMM should feel even more confident in the [quality](#) of their IT providers."

Provided by University at Buffalo

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