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# RESEARCH APPROACHES TO IT BUSINESS VALUE: CASE STUDIES VERSUS FORMAL MODELING

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- N E W D O C -

## PANEL 13

### RESEARCH APPROACHES TO IT BUSINESS VALUE: CASE STUDIES VERSUS FORMAL MODELING

**Panel Chair:** Rajiv D. Banker, University of Minnesota, USA

**Panelists:** Benn R. Konsynski, Harvard Business School, USA  
Charles H. Kriebel, Carnegie Mellon University, USA

The annual investment in information technologies (computers, office and communications equipment) by industries in the United States is hundreds of billions of dollars. This staggering figure does not include money spent on software and systems development. Information technology "hardware" accounts for roughly one-third of all business capital-equipment expenses. The "information sector" accounts for 84% of all "high tech" capital stock in the US. Despite the magnitudes involved, the trade weekly *Computerworld* recently editorialized "Can you imagine growing your information systems budget by nearly twice the projected rate of inflation without having the ability to adequately measure the business value of projects being funded?"

This dilemma crystallizes in the executive offices of top management who are confronted with conflicting information and advice for major investment decisions on information technology (IT). For example, academics, consultants and professionals argue that IT is tomorrow's key to competitive advantage and bolster their arguments with anecdotal case histories of success. Conversely, there is a growing literature of empirical research which suggests (among other things) that the "productivity gains" from investments in IT over the past decades are neutral or negative. In his recent (1990) book, *The Business Value of Computers*, Paul Strassmann concludes, "there is no relation between spending for computers, profits and productivity." That is a strong statement. Is it true?

A number of different paradigms and approaches to assessing the business value of information technologies have emerged in the research literature. Some of these compete with one another on what attributes and measures are emphasized and which methods are employed; others are complimentary. While all of the approaches seek to describe IT contributions, the differences in outcomes can often be traced to the underlying discipline(s) embodied in the approach and the criteria emphasized. These differences impact on the nature of the normative prescriptions for management, if any.

This panel will debate what might be considered two polar extremes in addressing the issue of IT business value: the case study approach and formal analytic modeling. From a research perspective, the former can be considered an inductive approach and the latter as deduction. Is there a natural superiority (e.g., power) of one approach versus the other? The panelists will argue that there is and present their evidence, respectively. Of particular interest, they will address such questions as: How is business value defined and measured? What is the focus of investigation: description, prescription, or diagnosis? What constitutes a result or conclusion? How are results validated? How are they implemented in practice?

After short presentations by each panelist, the discussion (and debate) will be opened to the general audience with strong encouragement for broad participation.