

The Impact of IT Investments on Profits

New research finds that investments companies make in information technology increase profitability more than investments in advertising or R&D do.

BY SUNIL MITHAS, ALI TAFTI, INDRANIL BARDHAN AND JIE MEIN GOH

CEOs often struggle with some critical choices as they allocate their companies' discretionary dollars among various categories of investments. Should they invest more in IT than in, say, advertising or research and development? And when they do invest in IT, what kinds of projects should they focus on?

A recent study we conducted offers some insight on such questions. Although several earlier studies by other researchers had not detected a significant effect of IT investments on profitability, we found that more recent information technologies — those deployed since 1995 — have a significant positive impact on profitability. Our study used data from more than 400 global companies from 1998 to 2003. (More detailed information about our research can be found in an article in the March 2012 issue of *MIS Quarterly*.)

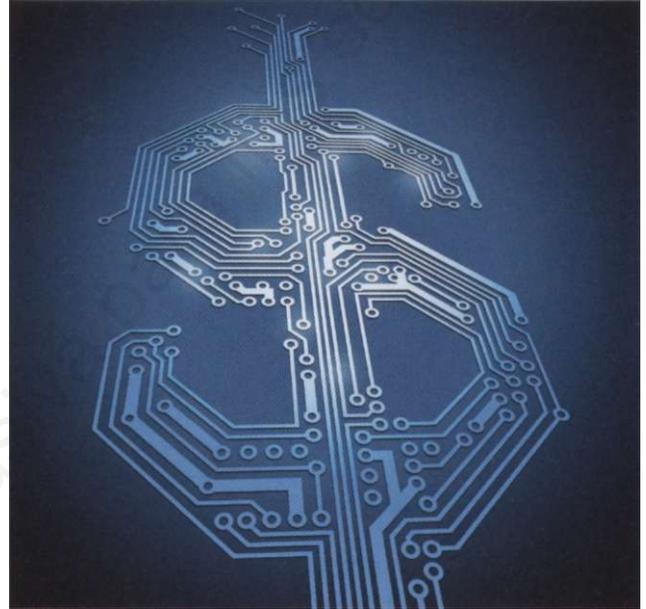
What's more, we found something very surprising: Investment in IT had a greater impact on a company's profits than comparable spending on either advertising or R&D. We also found, however, that there was significantly more variability in the effects of IT investments than in investments in advertising or R&D. Perhaps because IT involves novel technologies, IT investments offer more room for creativity and innovation. It may be that most businesses already know how to manage advertising and R&D to their best advantage, but only some have mastered managing IT.

We also found that some kinds of IT projects appear to enhance profitability more than others. Information technology can be used to increase efficiency and reduce costs, or it can be used to support sales growth through, say, customer satisfaction and customer retention strategies. We found that in general, IT investments were more effective in improving profitability by increasing revenue than by decreasing operating expenses. In fact, IT investments had a marked positive effect on revenue growth; for example, a \$1 increase in IT expenditures per employee was associated in our study with a \$12.22 increase in sales per employee. However, the effect of an increase in IT expenditures on reducing overall operating expenses was negligible in our sample of companies.

Further analyses of our data suggest that as industries become more competitive, the effect of IT on profitability increases. IT investments also had a greater effect on profitability

in the service sector than in the manufacturing sector. A possible explanation for this finding is that services allow greater IT-enabled customization and personalization.

One key takeaway from our research: All other things being equal, executives should



accord higher priority to IT projects that have the potential for revenue growth over those that focus mainly on cost savings.

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