Does Corporate America Know How to Measure Payoff in Information Technology Investment?

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During the past two decades, the fear of being left in the Information Age's dust has motivated businesses of all sizes to invest tremendous amounts of financial and human resources in acquiring information technology (IT) systems. According to Joshua Mact in an article published in the 1995 issue of "Inc" magazine, U.S. businesses spent more than $100 billion a year on hardware alone. Most business managers have come to assume that without the constant investment in the latest innovations of information technology, their organizations will be at a disadvantage. The hope is that these investments will allow them to prosper and compete with other investors. "Most businesses invest to keep up with technology rather than investing because they have an interest in technology" noted Sarah Juon in the November 1998 issue of "Computer Reseller News" magazine. But at the same time, there are many business owners, corporate executives, and financial managers wondering if their companies are obtaining adequate returns on their information technology investment.

Most businesses have ways to account for returns on business investments, but when it comes to information technology, the majority of businesses have not developed programs to regularly assess their computer technology return. One possible reason for such a lack of adequate accountability is the fact that most organizations view the benefits, such as access to new clients, markets, and enhanced marketability of products and services, as intangible and unmeasurable. Undoubtedly, most businesses can benefit from information technology investment, but the question is "does a business position the technology correctly in the overall organization's structure in order to be a driving force?" Rather than constantly investing in this technology, businesses should have a clear plan for when to buy and what to buy to improve productivity. Then, later they should conduct post evaluation to determine how effective the decision in obtaining the needed technology has been in relation to their initial goal and objective. According to Prof. Sid Huff of the University of Western Ontario, "Information Technology must provide value in a firm's relationship to a competitive environment."

A major impediment to quantifying the value of information technology investment is that there is no single evaluation of IT value that can be applied to every organization. "Just the diversity alone of stakeholders in IT investment and of IT investment impacts within an organization precludes any one approach in measuring IT investment payoff" as noted by Professors Mahmood and Szewczak. Both are authors of the recently published book entitled "Measuring Information Technology Investment Payoff: Contemporary Approaches" published by Idea Group Publishing (www.idea-group.com) of Hershey, PA. This book promises to clear the air for those wanting a distinct view of their investment payoff. In their book, Professors Mahmood and Szewczak list five general steps that should be adopted by management in evaluating the level of information technology investment payoff in the organization:

Step 1. Adopt a multidimensional view of the IT investment payoff measurement issues.
Step 2. Identify and embrace non-quantitative measures of IT investment payoff.
Step 3. Be open to using a number of approaches to measuring IT investment payoff.
Step 4. Measure IT investment payoff at various levels of the organization.
Step 5. Measure IT investment payoff separately for different types of IT.

The Internet promises to provide organizations with vast access to customers and markets through the use of Electronic Commerce (e-commerce) technologies. Many organizations are now trying to jump on this virtual bandwagon by investing heavily in e-commerce or information technology systems. A recent poll of 371 chief financial officers conducted by Duke University and Financial Executive Institute reports that 56 percent of the companies surveyed expect to sell their products over the Internet by the year 2000, up from 24 percent in 1998. The participants also project that business generated through e-commerce will account for about eight percent of their total sales, an increase over five percent in 1998. The Internet has given organizations opportunity...
to invest in innovation and increase sales, but even the newest technology has not provided the tools to measure the payoff.

The real challenge facing many organizations is how to determine if their information technology investments are paying off in light of their efforts to benefit from many strategic advantages that information technology can offer a firm? " When companies put large sums of money on the table for IT investment, payback is always somewhat of a gamble. The risks and rewards of IT defy conventional measures. But if you develop meaningful business metrics, you can greatly improve the odds” as noted by Ivy McLemore in the May 1999 issue of "Business Finance" magazine.

About the Author:
M. Khosrow-pour is currently an associate professor of Information Systems at the Pennsylvania State University. He has also been editor of the Information Resources Management Journal since 1988 and is the author of more than 10 books on various areas of information technology management in modern organizations.