Weighing the Costs and Benefits of New Technology: Is RFID for You?
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A firm "Yes!" is the answer if you are supplying to Wal-Mart or the U.S. Department of Defense (DOD), which have mandates requiring their suppliers to use radio frequency identification (RFID) tags. Although neither Wal-Mart nor DOD reveals the number of suppliers adversely affected by failing to comply with the mandates, it is safe to assume that noncompliance could affect future sales of the suppliers. Hence, the firm "Yes!"

Answering one question often leads to another in business—a fact that keeps us in business. If you have implemented an RFID program by a mandate's stick, you must be asking for a carrot beyond temporarily keeping your supplier status. That carrot is the better decision-making capability due to the richer and up-to-date information that RFID tags provide. Appropriate use of this more complete information can help you make fact-based, data-driven decisions rather than those based on guesses, which in turn will yield a more adaptive and profitable company. The keyword here is "appropriate" which invigorates my federal- and Texas-funded joint research with School of Management Professors Alain Bensoussan and Suresh P. Sethi.

Not yet being a supplier of Wal-Mart or DOD does not preclude possible use of an RFID program at your company. A proper evaluation of such a program requires a cost-benefit analysis. Although the cost of tags, readers and software is easy to find out from enthusiastic RFID vendors, your enthusiasm could subside while measuring the benefits. Quantification of the benefits, which requires a comparison of the profits with and without RFID data, is very important and hence a major part of our research. Nontrivial quantification can start with statistically measuring the discrepancies between the actual data and the data recorded without RFID tags. This quantification can provide insights about the potential benefits of using complete information in decision making.

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