

**“Monday Effect” on Performance Variations in Order Fulfillment:
How IT-Enabled Procurement May Help**

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ABSTRACT

Although there are both process-related and human-related grounds for systematic performance variation across days of the week, such a phenomenon has not caught the attention of information systems or operations management scholars. Using transaction-level data from the U.S. Government’s General Services Administration, we study three layers of effects: the Monday Effect, the Technology Effect, and the Product Effect. First we assess whether performance varies across days of the week in order fulfillment, measured by order cycle time, complete orders fulfilled, and short shipment percentage (the Monday Effect). Furthermore, we assess how information technology, notably an electronic market, can mitigate such variations (the Technology Effect), and how product characteristics moderate such effects (the Product Effect). Our findings show that there indeed exist significant, systematic performance variations across days of the week, with Mondays having poorer performance than other days of the week (hereafter termed as the “Monday Effect”), after controlling for workload and other factors. Further, we find that much of the performance variation for order cycle time can be reduced when an IT-enabled electronic market is adopted. Moreover, we find that the electronic market is most effective at mitigating the Monday Effect for less frequently transacted products, such as products of high value, products that are slow moving, and specialized products with small numbers of buyers. These findings suggest that measures can be taken to reduce fulfillment deficiencies, including using information systems to mitigate variations in operations management, leading, potentially, to smoother operations continuity and higher service levels in the supply chain.

Key Words:

Performance Variations, Monday Effect, Electronic Markets, IT Value, IS-OM Interface