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Bringing Lean to the Back Office – Accounts Payable Kaizens

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Medtronic Global Business Solutions

Medtronic was founded in 1949 as a medical equipment service company. It developed the first wearable external cardiac pacemaker in 1957 and the first reliable long-term implantable pacing system in 1960. Medtronic continues today to be a leading world-wide producer of implantable technology and other medical devices. Its seven core businesses have over 35,000 employees located in 120 countries.

Medtronic began its Lean Sigma journey in 2003. Renee Cveykus was tapped to report to HQ to begin learning Lean and Six Sigma. Within twelve months, she became a certified Black Belt and began to apply Lean Sigma to Medtronic's business support transactions. Her first assignment was to walk the in-house vendor payment process. Medtronic operates a decentralized business model, with 100,000+ vendors funneling their invoices into a centralized accounts payable department at Medtronic's Minnesota headquarters. There were 10,000 unprocessed paper invoices – and an ERP system that had been down for four days – when Cveykus and the AP staff began.

Two key tools brought immediate and then longer-term successes to the team. The first tool – the “project hopper” – was a simple matrix that identifies work (the project and its associated tasks) to be done. The second tool was an event kaizen guide to DMAIC tools available; using a template, a belt can point and click to determine which tool or methodology to use, and when, during a kaizen. Medtronic has customized three guides for internal use, and Cveykus considers them lifesavers.

Medtronic pays about one million invoices a year. Each invoice flows through a process of scanning, indexing, processing, exceptions, and payment. Prior to the Lean Sigma implementation, there were 650,000 electronic invoices; the rest were scanned paper invoices, with subsequent data entry where the scan could not be read. Twelve months and five kaizens later, Medtronic reduced its invoice payment lead time from 14+ days to fewer than five, and

saved money on computers, floor space and other infrastructure costs. The improvements have been sustained. Lead time has never gone back up.

The five kaizens were (1) implementing single-piece flow with no more batching, (2) implementing first-in, first-out with no cherry-picking of the 'easier' invoices, (3) reduction of the workload for actually issuing either electronic or paper check payments, (5) combining purchase order and non-purchase order invoices into a single process, and (4) automate the process for internal payments. Kaizen 4 was completed after kaizen 5; the process of automating a form that was very technical and complex required software code changes and communication with multiple databases and took longer to complete than the five days originally allowed. The current pain point for Medtronic is exception handling. Medtronic can have ten different contracts for one supplier, with 90+ terms allowed in these contracts.

Value stream mapping and visual management were key tools for every project. Employees wore pedometers to track their steps for the day. Data from this exercise led to all scanning machines being co-located for ease of use. Flat screen monitors mounted on the walls are updated constantly so that the cross-trained workers can see where the work is and how much there is. Desks and walls were moved to make the work area open and easier to place work stations. A training board lists who can do what job, and who is available to cross-train someone else seeking certification.

Medtronic currently has a task force of over 1,500 black belts in place to train other employees and engage in projects. The company's Lean future will be couched in terms of an "Align, Empower and Enable" strategy, and will take employees, suppliers and patients forward together.