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| **OMIS 643 – Enterprise Process Improvement (Spring – 2016)**  **Assignment #1**  **Due Tuesday, Feb. 23** |

**Business Process:**

Setterstrom Company sells electronic equipment to other businesses (not retail customers). To make sure customers purchase the equipment they need, Setterstrom employs trained and knowledgeable sales representatives. Sales representatives are integral to the business process. The process of fulfilling an order begins when a customer contacts a Setterstrom sales representative and schedules an appointment. Representatives usually visit the customer at its location, write up a (paper) order, generate a paper invoice to the customer, and send the order to Setterstrom's warehouse via standard postal service. The US Postal service takes 2 to 5 days to deliver a given piece of mail, with the most typically deliver time being 3 days. Customers remit payment at the time of purchase by writing a check, which the sales rep mails to Setterstrom's accounting department along with a copy of the order for processing.

Setterstrom's accounting department uses a computer with an accounting information system (AIS) to track customer orders and to manage the firm’s general ledger. Each order is input into the AIS and customer balances are closely monitored. When a check is received, it is applied to the customer's order using the AIS and is then scanned/recorded into the AIS database. Susan is Setterstrom’s accountant. Susan graduated with her accounting degree from NIU, so she is an excellent accountant and employee. All processes of entering information into the AIS are always completed in a single day’s time.

When the Setterstrom warehouse receives an order from a sales representative, Bob starts processing it for shipment. Bob got his job at Setterstrom Co. because his sister is married to the CEO. He received his business degree from the University of Illinois. Predictably, Bob spends the majority of the work day on Facebook and lets order sit in his “to-do” pile for anywhere between 1 to 7 days. On average, orders sit for 2 days. Once order process begins, any in-stock items are moved from storage into the packaging area by a picking specialist. This process takes 1 day to complete. Once in the packaging area, a packaging specialist prepares the equipment for shipment, which takes 1 day. The shipping firm that delivers equipment for Setterstrom Co. takes 2 to 3 days to complete a delivery. Once an order is picked up for shipment by the delivery firm, it is marked as 'shipped' on the order form. Any out-of-stock items are marked 'out of stock' on the order form. A copy of the updated order form is then mailed back to the sales representative.

If the order contained any out-of-stock items, the sales representative must notify the customer (by telephone) that the items are out of stock and provide an estimate of when they are expected to arrive (if known). The sales representative would then generate a purchase order (PO) for the back-ordered items, a process that takes 2 to 3 days. Usually, the PO is generated in 2 days, since most equipment in the Setterstrom inventory come from a single vendor. Completed PO’s are mailed to the vendor (paper). A copy of the PO is also mailed to the accounting department, since a PO is a legal promissory note to pay for products being ordered. All PO’s forwarded to the accounting department are entered into the AIS.

Once the vendor receives the PO, it will package the equipment and send it to Setterstrom's warehouse along with an invoice. This process takes 5-10 days, with 7 days being the average fulfillment time. The warehouse will receive the equipment and move it into storage, which takes 2 days. Additionally, the vendor's invoice is forwarded to the accounting department via mail service. When the accounting department receives the vendor's invoice, it will link the invoice to the open PO by entering it into the AIS. Printing off a check takes a nominal amount of time. The accounting department will then mail payment to the vendor, usually in the form of a check.

Once products have been moved into storage, Bob will retrieve a copy of the order from the filing cabinet and begin the shipping process for the remainder of the order by placing the order in his to-do pile. Once the remaining equipment for a given order is shipped, the order is marked as 'shipped' on the order form. The final copy the updated order form is then mailed back to the sales representative, where it is filed away in his/her records.

**Assignment:**

Step 1: Model this process at the organizational level using a relational map.

Step 2: Model this process at the process level using as a cross functional process map.

Step 3: Calculate the cycle time for the fulfillment process and conduct a value analysis.

Step 4: Briefly discuss the efficiency of the business process.

Step 5: Propose improvements to the business process (i.e. improve the cycle time).

* Include an integrated information system in your new business process
* Model this improved process at the process level using as a cross functional process map
* Provide the new cycle time (show your work)

Step 6: Prepare you assignment in a professional looking document.

Step 7: This assignment is due in hard copy form and electronically via Blackboard by the start of class.