

# Business Process Management

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## Homework 2: Modeling a Procurement Process (“As Is”)

A large company wants to conduct a review of its current procurement process. It is expected that you provide a visualization of the current business process.

Here is the current situation.

There are approx. 25,000 vendor master records and 15,000 material master records in the current procurement system, which is part of an integrated Enterprise System. Most of the 800 employees in the administrative areas and in any middle management position can order goods. A purchase request demands the completion of a paper-based form due to the requirement for a signature. The purchase request includes information about the material, the quantity, the desired delivery date, the approx. purchase value and can include a proposed vendor. Employees often request quotes from vendors in order to get the information and completing the entire form can take a few days as the requestor often does not have the required data. The quote is attached to the purchase request. This completed request is then signed by two supervisors. One supervisor has to provide a financial approval, the other supervisor has to approve the necessity and conformance of the purchase (e.g. does a requested software form part of the standard operating environment?). Collecting the signatures from the two supervisors takes on average five days. If it is urgent, the employee can “hand deliver” the form, otherwise it would go via internal mail. A rejected purchase request is returned to the employee. Some employees tend to make only minor modifications and try in a second attempt other supervisors in order to get approval. An approved request is also returned to the employee who forwards the form to the purchase department. Many employees make a copy of the form for their own record and monitoring purposes. The central purchase department checks the completeness of the purchase request and returns it to the employee if it is not complete.

Based on attached quotes and the requested material, the purchase department enters the approved purchase request into the Enterprise System and selects vendors, if required. Sometimes the initial quote attached to the request has expired in the meantime and an update is requested. In other cases, the vendor who submitted the quote is not in the system and other vendors have to be approached. When a vendor is selected, a purchase order is automatically generated from the purchase request. Then, a fax is generated and sent to the vendor. A copy of the purchase order is sent to accounts payable, which uses an accounting system that is not integrated with the Enterprise System. Some vendors call in order to confirm the order or to discuss any issues with the order.

The delivery time varies significantly and depends on many factors (goods ordered, location of the vendor, etc.). When the good finally arrives, the goods receipt department selects the corresponding purchase order in the Enterprise System, checks quantity and quality and (in the positive case) automatically derives a *goods receipt form* from the purchase order in the Enterprise System. The good is then forwarded to the employee. A print-out of the goods receipt form is sent to accounts payable. If there are any issues with the good, it is returned to the vendor and a paper-based note is sent to the purchase department and accounts payable.

The vendor sends the invoice directly to the accounts payable department. They compare purchase order, goods receipt and invoice in a so-called “three-way matching” process. This process can be very time consuming, if there are any discrepancies as it has to be investigated, if it was an error of the vendor or an internal data entry error. The duration of this payment process unfortunately takes sometimes so long, that the discount for paying in a certain period expires. A bank transfer is finally triggered and a payment notice is sent to the vendor. Some vendors explicitly indicate in their invoice the bank account number where they want the transfer to occur. It may happen that the bank account number and name indicated in the invoice differs from the one recorded in the vendor database. Sometimes payments bounce back, in which case the vendor is contacted by phone, e-mail or postal mail. If new bank details are given, the transfer is attempted again. If the issue is not resolved, a cheque is generated and sent to the vendor as soon as possible.

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