Managing the Departmental Purchasing Process Beyond University Provided Systems

Tracy Tamer
University of Michigan –CAEN

Tracy Tamer
University of Michigan-CAEN
2281 Bonisteel Boulevard
2162 Duderstadt Center
Ann, Arbor, MI 48109-2094
734-615-5990
tracyaj@umich.edu

Abstract

The University of Michigan provides a system called MPathways that is utilized for many activities including procurement. UM also provides other methods like P-Cards for purchasing equipment and supplies for staff that cannot be purchased via a PO thru MPathways. The management of the requests outside of the actual purchasing action was left up to the individual departments. The CAEN department at University of Michigan managed most purchasing requests via email. These emails were often sent only to the purchasing clerk who was responsible for managing over 90% of the departments' orders. The purchasing request emails were mixed among non-purchasing related requests.

Methods for submitting requests to the purchasing clerk varied by requestor and the information necessary to complete the purchase was often lacking in the request. An unnecessary delay was then added to the procurement process while the clerk tried to contact the requestor to secure the missing details.

Management of purchasing requests was also difficult for remaining administrative staff when the purchasing clerk was out of the office. We often heard "I emailed Jim an order. Do you know what's going on with it?" It was difficult at best trying to track down the status of the order or find the relevant paperwork on Jim's desk. Jim had his own pile system which wasn't always usable for others in the office.

For the sake of business continuity and customer service, something had to change. A Purchasing Footprints queue was developed to manage the purchasing process prior to the action of officially ordering the items through the University tools. A few of the benefits of the Purchasing queue include : faster turnaround on submitting orders and receiving the product, the ability for other office staff to assist requestors when the purchasing clerk is not available, increased organization, historical data for repeat orders and improved morale.

This paper describes the system developed to manage purchase requests at the departmental level and the benefits of this queue.

Introduction of the Organization

The University of Michigan (UM) was founded in 1917 as one of the first public

universities in the nation and is consistently ranked in the top three of the country's public

institutions. It is spread across three campuses – Ann Arbor (main), Dearborn and Flint. UM has

over 51,000 students, 10,000 faculty and supplemental faculty and staff and 28,000 staff

members and offers almost 250 degree programs.

The Computer Aided Engineering Network (CAEN) is a non-academic unit within the College of Engineering (CoE) at the University of Michigan which employs approximately 42 FTE's and 50 students. CAEN is responsible for maintaining the classroom technology, computer labs and software library for use by Engineering students. Until 2013, CAEN was also responsible for maintaining the network around CoE. CAEN has a 9 million dollar budget and approximately forty percent of the budget is spent on purchases of equipment and supplies for the classrooms and labs.

The University provides a centralized system (MPathways) which enables staff to manage payroll, hr, admissions and procurement activities. Units like CAEN are able to take advantage of these centrally provided resources. However, it's up to the units to find a way to manage the requests prior to entry into the central resources.

Statement (Restatement) of the Problem/Initiative

At CAEN, the procurement request process was primarily an email based input process. Requests to purchase were often emailed directly (and only) to the purchasing clerk. When the clerk received the purchasing request, he would print the email and then order the items through the appropriate University method (P-card, marketsite, PO, etc). Afterwards the order was then entered into an internal Equipment and Service Order Form (ESF) database. This ESF database was an Oracle based system designed and maintained by CAEN and it was a method used for tracking open orders. Some staff preferred to enter the request directly into the ESF system themselves and bring a printed copy down to the purchasing clerk to initiate the request.

Submission of a purchasing request via email or directly into the ESF system was problematic since both methods were very free form and information submitted on the requests was not standardized. In addition, request information was sometimes entered up to three times. There was often a lot of back and forth between the purchasing clerk and the requestor. This back and forth caused a delay an unnecessary delay in completing the purchasing process.

When the purchasing clerk was out of the office, other staff members were expected to manage purchasing requests. If the purchasing clerk had a planned absence, the purchasing clerk would set up a meeting with the backup purchaser to review open orders. In situations where the primary purchasing clerk had to take an unplanned absence, the management of open orders was difficult at best. The backup purchaser would have to dig thru the purchaser's pile system to try and find the order in question.

This lack of structure for the procurement request process resulted in a lot frustration for the requestors, the procurement clerk and the remaining office staff. In addition, order turnaround was much longer than necessary.

Design

After listening to the concerns of the requestors and talking to the Administrative staff, I decided that the Office staff was going implement a purchasing queue in the University provided help desk tool called Footprints. The University had already purchased the Footprints

software and shared the software freely with departments which eliminated a direct financial cost to CAEN. The CAEN hotline was already successfully using Footprints to manage Help Desk requests and had developed an expertise with administering Footprints workspaces.

The first step involved selecting a representative sample of CAEN employees that would be submitting purchasing requests and members of the Administrative staff that would be managing the purchasing tickets. The development team met a few times to determine which fields would be helpful for requestors and the Administrative staff and plan the layout of the web-based form.

Once the queue was set up, we asked a couple of our higher volume requestors to assist with the pilot. All 5 of the Administrative office staff members would be required to participate in the pilot.

The initial investment of time was approximately 40 hours between meetings, determining the fields and the order of the fields, translating the requirements into a web-based form, setting up the routing of tickets and testing. The costs were limited to staff time for designing and implementing the database and training staff how to use the database along with managing non-pilot participant requests through the existing methods.

Implementation

We ran the pilot for approximately one month after a couple of training sessions. During the pilot, users had a series of fields that were required such as : order title, shortcode, budget category priority, delivery location, status and item description for the first item. Each ticket

could hold up to 5 line items. Optional fields were set up for known vendors, manufacturer part number, estimated unit cost and rebilling. Quotes and supporting documentation (i.e., vendor emails, sole source justifications) could also be attached to the ticket.

Once the requestor submitted the ticket, the requestor and all the full-time CAEN office staff received a copy of the email request. Daily, the purchasing clerk would be responsible for using the appropriate University tools (PO, Marketsite cart, Pcard, etc) for completing the orders and updating the status of each ticket with the relevant information such as : status of the order, the Requisition or PO # and any notes that would be beneficial for historical purposes or for the backup purchaser. Each ticket shows a history which is helpful when trying to resolve errors with any orders.

Any ticket updates result in an automatic email to the Administrative staff and the requestor.

Throughout the month-long pilot, we received feedback from both the requestors and Administrative staff. The Purchasing queue development team reconvened to determine which changes made sense and actually could be implemented.

After about a year and a half of utilizing the "revised" Purchasing queue, we convened a group of the heavier users of the queue to determine what was working, what was no longer working and what needed to be changed.

What was determined during this meeting was that the overall queue design was working well but that a few of the fields were too vague for users. For instance, there wasn't

any way for partial items shipped to be recorded. The only choice was "Received". Received was open to interpretation too. Does "received" mean that the PO has been received or that the order was received? The development team then met again with the Hotline Footprints expert to implement the changes.

CAEN has been using this queue since 2007 so we now have over 7 years of Purchasing requests located in one place! Some of the non-administrative staff that were initially resistant toward using an order queue have praised the benefits of the system and are looking at their own processes to determine if a Footprints queue make sense for their activities.

Benefits

CAEN has experienced quite a few benefits from the implementation of this Purchasing queue. These benefits include:

1) Improved productivity - Although the actual staff time was not tracked with regards to ordering equipment and supplies before and after the implementation of the Footprints purchasing queue, the employee has reported improved productivity. For the most part, orders come through with most of the information needed to order the items the same business day the orders arrive. The purchasing clerk has been able to expand their portfolio of duties.

2) Customer Service - Administrative staff are able to manage orders when the purchasing clerk is out of the office. Requests are not being lost in an employee's email box because there is one queue for all procurement requests. Orders can be sorted on status and

follow-up can occur on orders that are not received or open within a certain period of time.

3) Order history/searchable database - A history of orders is centralized in one location for reference regardless of who placed the order. We have the ability to easily find what equipment was ordered, on what shortcode and when, regardless of who entered the order into the UM system. A searchable database exists to help staff find part numbers for similar items ordered previously.

4) Order approval routing - Tickets can be easily forwarded to shortcode stewards for approval if they are above the established threshold for orders submitted by non-stewards.

5) Improved morale of staff and image of administrative staff - Overall, Office staff are happier. There has been a significant reduction in the number of complaints to me about productivity and the lack of customer service.

6) Standard for other administrative improvements - The implementation of the purchasing queue sparked a desire to review other administrative processes which would benefit from a similar system. (Footprints queues have been implemented to handle the hiring and termination processes and decommissioning of hosts.)

Retrospect

In retrospect, it would have been beneficial to track the amount of time weekly spend purchasing via the email method versus the new queue so that we could calculate the savings related to the implementation of the Purchasing queue.

In addition, we should have investigated what modules would have been available through MPathways as an enhancement and built a business case to have the University purchase those modules and submit a request for CAEN to pilot those modules. Overall, a centralized MPathways tool would have been beneficial to more units on campus. Recently we learned that various groups at the University have been investigating the use of a request to purchase/receiving module within MPathways. At this time, the module still requires double entry since the items are not directly tied to the procurement system. UM is hopeful that within the next few years, the Procurement and Request modules will be tied and eliminate some of the double entry. CAEN has volunteered to participate in the pilot on behalf of Engineering.