Students turn customer requests into purchase orders

W.W. Grainger, Inc., based in the Chicago area, distributes facilities maintenance, repair and operations (MRO) products. Products outside the company's standard offerings are handled by Grainger's Sourcing division.

In 2012, Grainger Sourcing quoted 833,000 items worth $1.9 billion in sales, but 49 percent of the quotes didn't result in purchase orders, a low conversion rate.

"We wanted to understand how our conversion rate could be improved," says Chris Towers, Grainger Sourcing central operations director. "Some barriers to conversion that we heard from our sales team were around the speed of Sourcing's response to the quote and our sales price once we completed the quote. Some internal barriers were that we lacked critical information on the quote to help us work faster and better understand the opportunity. We also heard that when our sales team handed off a customer sourcing request to our field customer service team, it was difficult to determine who the actual requester was and it slowed down our process to obtain critical information to process the quote properly."

To deal with this problem, Grainger brought in a student team from the Tauber Institute for Global Operations at the University of Michigan consisting of Christopher Kalich (working on an MBA), Nikhil Patel (a member of the Engineering Global Leadership Honors (EGL) program, which leads to BSE in Chemical Engineering and MSE in Industrial and Operations Engineering degrees) and Zhaohui (Judy) Xu (working on a Master of Supply Change Management degree).

The Tauber team conducted a root cause analysis of the request for quote (RFQ) process. "We drew a fishbone graph, listing all the possible causes that may lead to the slow turnaround time of the RFQ process," Xu says. "We next conducted an impact, control and ease (ICE) analysis, giving each cause a score from 1 to 3. The cause with the highest ICE score was determined to be the root cause of the problem."

"The most important finding from our root cause analysis was that there was a lot of inconsistency in the process," Kalich adds. "Branches often had different expectations of members of the sales team, which led to high variability in the information that was collected from customers and ultimately ended up on an RFQ. Further, we found that information collected from customers was not always making its way to the Sourcing team, which delayed the time to produce an adequate quote."

From the root cause analysis, the Tauber team concluded that improving and standardizing the quality of the initial RFQ information would increase the conversion rate by improving Sourcing's understanding of what the customer wants and speeding up the process.

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After researching available mobile software applications, the Tauber team used the online tool platform of Wufoo.com to develop an automated mobile RFQ application, easily accessible to sales account managers through an icon on Android- and iOS-based phones, according to Patel and Xu.

This RFQ application includes salesperson and customer contact information, part number and description, quantity, brand name, date needed, target price,

Students from the Tauber Institute for Global Operations at the University of Michigan teamed up with the client to boost revenues at Grainger.

repeat purchases, previous quotes and customer priorities, with the quote sent directly to Sourcing.

The pilot of the mobile RFQ application was conducted in two stages. The first stage lasted from July 15 to Aug. 9, 2013, with eight Chicago area salespeople participating and the Tauber team following up on implementation.

"Each seller was asked to load the RFQ application to their smart phones, laptops and tablets, and to submit sourcing quote requests using only the form developed by our team," Patel says. "The customer service representatives at each of the five branches were asked to input all the information provided on the forms into SAP. If there was no designated field for a certain piece of information, the commercial sales associates were asked to enter the information into the 'additional notes' section of the SAP RFQ submission portal. The team then tracked and analyzed each quote submitted."

After the Tauber team left Grainger, an expanded second stage pilot was conducted for 16 weeks until the RFQ application was incorporated into the Grainger Sales Mobile Application, which automatically submits RFQs directly into SAP, thereby ensuring standardization of all Sourcing quote requests.

"The delivery of the interns' work was shared at all levels in the organization and adopted before they left our premises," Towers says. "The fully designed mobile app has been rolled out to all sellers and is in use. Cycle time is dramatically reduced when the app is used, and the conversion rate is significantly positively impacted."

The RFQ application is expected to decrease the customer experience cycle time by up to 25 percent, increase the conversion rate by 1 percent to 4 percent, increase revenue by $8 to $32 million, reduce costs by $2.8 million by eliminating non-value handoffs to the customer service team in the RFQ process, and reduce rework by 13 percent.

"The solution was effective because it provided a tool for Sourcing to better communicate its needs to its field partners," Kalich says. "Communication of expectations improved, communication of customer needs improved and timeliness of providing quotes improved. Overall, it was a better experience internally that empowered the client-facing team to provide a better experience to customers, thereby winning more quotes and increasing revenue." **OR MS**

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