

## **CASE STUDY**

## Church Envelope Manufacturer, West Virginia

Problem: Poor process control. Poor production scheduling and tracking. Lack of performance

measurements. 30 year old IT software.

Background: The client creates a highly configured product. Every envelope has different text from

every other. Each church is different from every other church. There is a serialized box of envelopes for each member and each envelope in the box has a date. Compounding this is the insertion of special church holiday envelopes that vary from denomination to denomination. This company manufactures over 300 million envelopes each year.

The grandson of the founder is elderly and the board of directors hired professional management to operate the business. Most employees have been working there for over 10 years. Some have a tenure exceeding 40 years. The company has existed on "tribal knowledge". Sales had been flat for nearly 10 years and profit while steady never met expectations. The new management recognized that continuing the status quo was not in the best interest of any of the stakeholders — owners, employees, suppliers, or customers. Thus they began a process to revamp the company from top to bottom including replacement of the 30 year of IT software that was the backbone of their operation. Sigma Pi Consulting was contracted to work with the ERP vendor to facilitate the implementation.

Solution:

Stable, long term employees embody institutional knowledge but without effort to examine their processes results in little process improvement. The consultant examined the operational processes from order entry to product shipment. He documented the "As Is" environment through 19 process flow diagrams. Applying business process analysis, he showed the flow of paper and work in process (WIP) throughout the company. He identified choke points and redundancies in those processes. He then designed "To Be" processes that the shop general manager estimated would increase throughput by 5% immediately with very little investment. The consultant documented the process created all of the support documents to implement the process. The first pass is a manual process. The second phase will be automated.

During the "As Is" analysis, the consultant determined that there was no significant data collected on job performance. The consultant examined the pricing spreadsheets which contained all of the performance assumptions in the company. Much of the information used in the spreadsheet was 30 years old. The consultant examined many of the assumptions embodied in the spreadsheets against what he had observed in the shop operations. He identified that the scrap factor was clearly understated. The consultant gathered data for paper consumption and compared it with the scrap paper that was



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recycled to determine the spreadsheet assumption was wrong by a factor of 5. Paper cost alone for waste exceeded \$500,000. Lacking good measurements for where in the process the scrap was occurring, cost of labor and other material costs could not be identified.

The consultant also worked one on one with the CEO and his key management staff providing executive coaching to improve individual and team effectiveness.

Profit Impact: >\$700,000 per year (on \$12m of sales)

Client Billing: < \$50,000