Documenting the Savings

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Could your company use an extra $27 million a month? Large Accounts Receivable (A/R) columns usually indicate that a company is successful. On the other hand, if the A/R is too large in comparison with sales, a cash flow crunch could occur.

The management of a large, multinational corporation discovered that it was harboring just such a potential problem. This story concerns their operations in three geographical areas: North America (Canada and the U.S.), Central America, and South America. Each region had a separate office in which the A/R was managed. Each region had A/R columns that were too large, but high inflation rates in Central and South America made efficient collection of their receivables critical. The management of the corporation decided that improvement was necessary.

Our story begins with the first step in the improvement effort—the process behavior charts. Figure 1 shows the values for the first year of the story. The U.S. receivables (as a percentage of three month's sales) from January to August are the first nine values shown on the chart. During the fourth quarter of Year One, the accounting systems for North, South, and Central American operations were merged, with all of the offices being combined under one system and managed from one location. Since the A/R in Central and South America had slower collection rates than in North America, the combined values increased dramatically during that quarter.

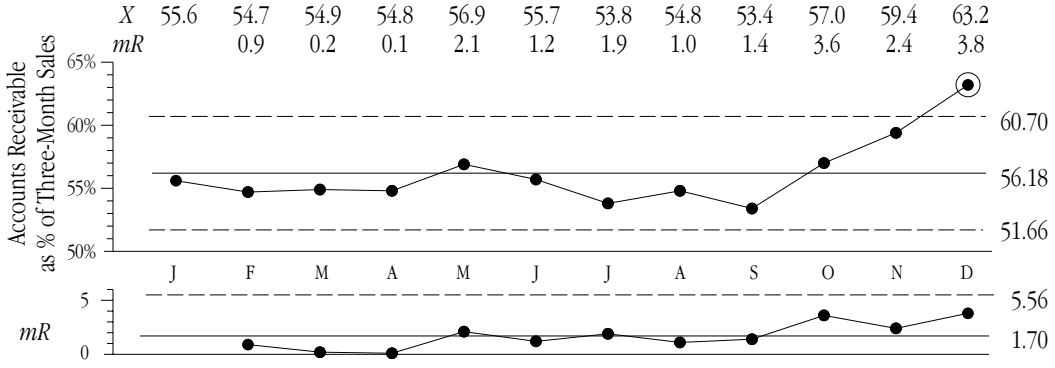

Figure 1: XmR Chart for A/R Values for One Year

The value for December was taken as a signal that the A/R system had indeed changed, but the change was not an improvement. The increase noted in December of Year One persisted for the first seven months of Year Two. However, during these months the Accounting Department was continuing to use the chart to monitor the process behavior, while searching for ways to improve the system.

The process behavior chart had shown that a real problem existed. The staff began their improvement efforts by using flow-charts to visualize the systems used by the different offices. Based on these flowcharts of the existing systems they created a new system that would not only provide the consistency missing in the separate offices, but would also improve and streamline the system as a whole. As they developed the new system, they created flowcharts of what the new process would be; they used these flowcharts to train the employees to use the new procedures.

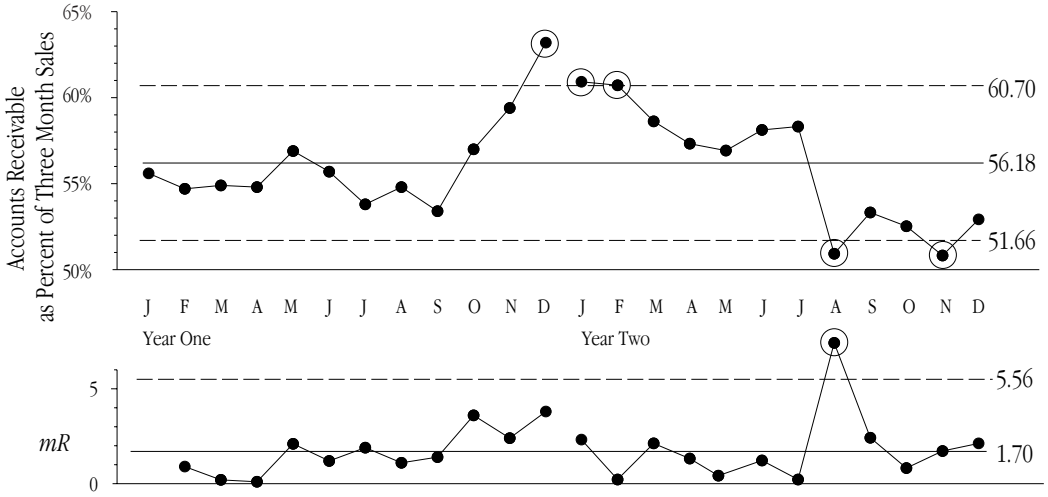

Figure 2: The A/R Values for Years One and Two

The effect of the new system is seen in August of Year Two, when both the *X* chart and the *mR* chart signal that a change has occurred. This is shown in Figure 2. The points for August and November, which fall below the lower limit, indicate that this process is doing better at the end of Year Two than it was at the beginning of Year One. They did not just bring the Central and South American operations into line with the North American operations, but they actually improved the collection rates from all of the regions. The A/R has dropped from 59% to 52%. This seven percent drop corresponds to an extra $17.5 million in increased liquidity each month! The changes made in August of Year Two resulted in a sustained reduction in the A/R. But the team didn't stop there.

As may be seen in Figure 3, the charts demonstrated another long run below the central line in Year Four. This run was evidence that they were successful in making yet another improvement to their collection process—they had added interest charges for overdue accounts. The impact of this change was made visible and quantifiable by the *XmR* chart above. At the current sales level of $300 million per quarter this two percent reduction in the A/R resulted in yet an additional $6 million liquidity each month.

In fact, during the two year period that this story encompasses, the A/R was reduced by nine percentage points, which is equivalent to having an additional $27 million of increased liquidity each month!

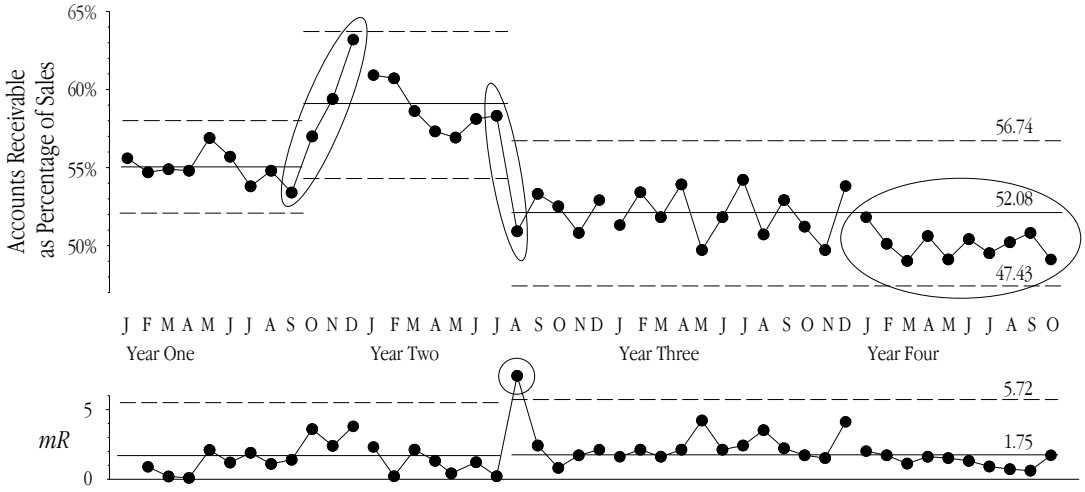

Figure 3: The A/R Values for Years One to Four

Notice that it was the interaction between the user and the chart that makes the chart so effective. One of the managers in this project said, "The charts were talking to us...telling us what was going on in our system." The process behavior charts showed where the process was, pointing out the need for changes. The flowcharts showed them the nature of the problems and helped them plan for improvement.

It is possible to use process behavior charts as impressive looking wall paper. But using them interactively with the other tools to visualize your process behavior, to evaluate planned changes in the process, and to communicate the effects of these changes to others—is how these tools can work together to become the locomotive of continual improvement.

So could your company use a 9% increase in available funds each month? Remember that Continual Improvement doesn't have to be hard. It doesn't have to be profound. It just has to be done.

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