Manufacturers Use Insights from Data Analytics for a Competitive Edge

Strategies for effective operations management

A Prophix white paper

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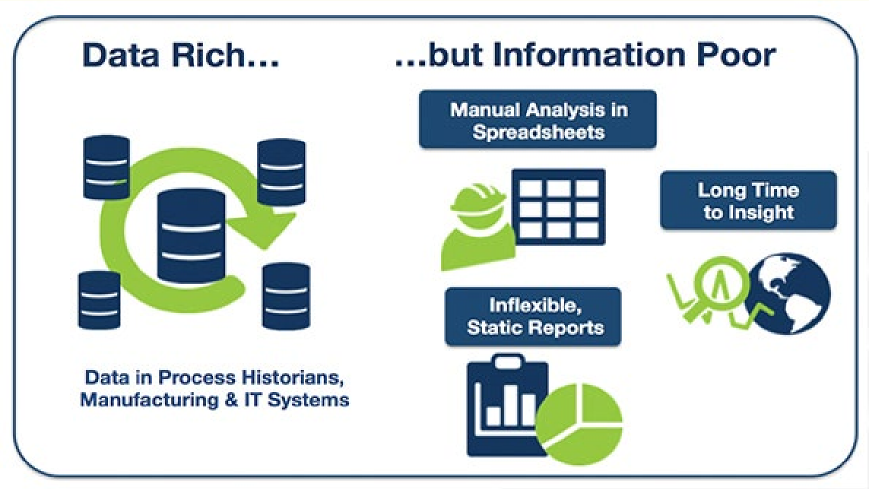
Introduction

Big advances in robotics, the emergence of the industrial Internet of Things and the promise of artificial intelligence may foretell a new age for manufacturers.

Today, however, most aren't exploiting the competitive advantages they could be from their own data. The lack of a single, shared, true vision of operations can impair productivity, quality and profitability. It also relegates the finance function to a tactical existence as number collectors, rather than strategic storytellers.

Manufacturers that have automated data-gathering processes can make fact-based decisions, gleaning insights that give them an edge.



▲ Source: Industry Week

Manufacturing meaningful data

Management teams at modern manufacturers have long sought data that would help them make operational decisions but the process for collecting the data can be onerous.

Typically, finance team members spend hours accumulating data from different sources and then dump the data into spreadsheets, where it can be charted and analyzed for meaningful patterns and insights. Usually, more time is spent collecting the data than analyzing it – data is often a wasted resource.

Compounding the challenge, operational data usually comes from different sources that don't align with each other. Data for one spreadsheet cell might be tracked by the finance group, operations, and quality control. Management is left to debate which is the right information, instead of addressing the underlying issue. Meanwhile, department leads argue their view is correct, based on anecdotal evidence.

The case for creating a shared, consistent truth

A manufacturer trying to understand why its shipping charges were much higher than expected provides a good example of the challenge that most manufacturers face to get a consistent, accurate view of operations.

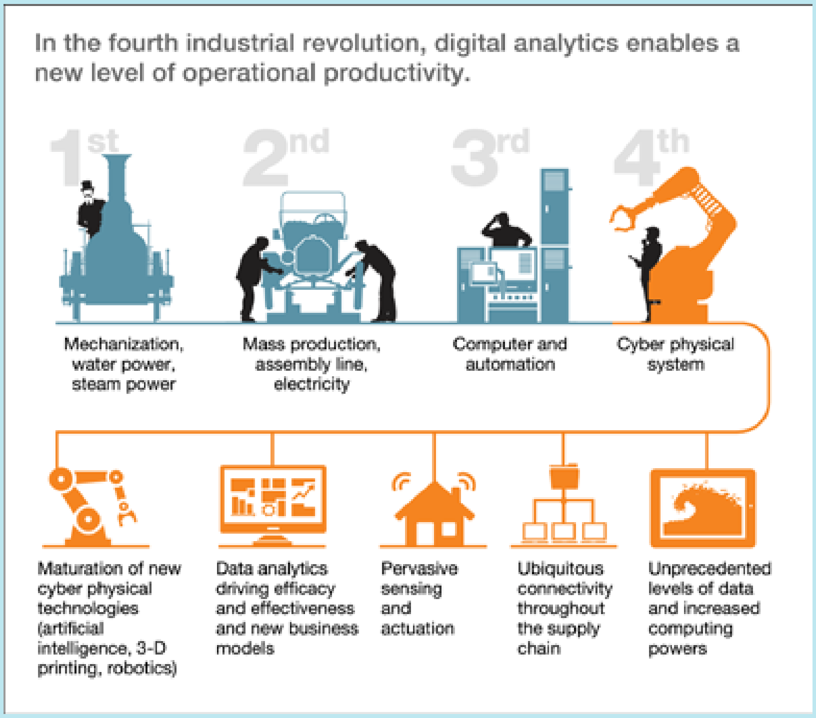
The company tracked what it considered excess freight charges but didn't understand why the charges were incurred or what needed to be fixed. The result is a continuous friction between sales, customer service, and the distribution team.

Customer service complained that manufacturing and distribution were not getting product to customers on time. Manufacturing and distribution pointed to sales staff, arguing they did not enter orders properly. Whatever the cause, the result is frustrated and unhappy customers and increased costs (if not lost sales and lost customers). To meet customer expectations, customer service pushed distribution to use more expensive carriers and services.

Unnecessary costs were incurred and customer relationships were put at risk while management was trying to make decisions based on incomplete and anecdotal information.

That changed when the company implemented a Corporate Performance Management (CPM) tool. CPM software compiles all data inputs into a central system, giving managers a single view of operations. Through the system, they identified freight costs by carrier, cross-referencing data with inputs from the customer service group. The truth that management uncovered was that both groups could be wrong and also, that sometimes even using a higher-cost carrier to deliver goods didn't result in timely delivery.

Managers were able to see trends in order entries and could identify the individuals who had routine or repeat data errors that caused problems. They could see where the company had a process problem (where the order-entry system was a problem for everyone) or where individual retraining was needed.



▲ McKinsey&Company | Source: Forbes; *World Economic Forum*

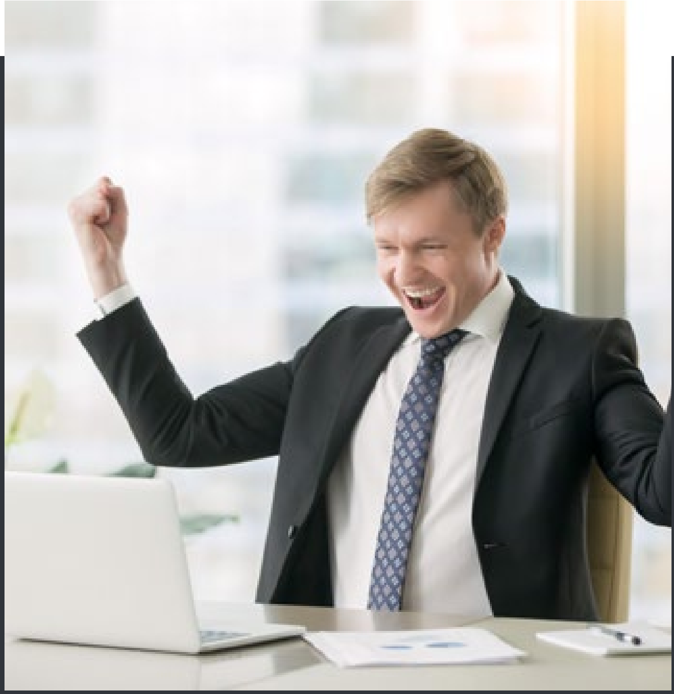
Results tell the rest of the story

When everyone in the organization had access to the same meaningful information, decisions became much better. Decisions were based on facts rather than anecdotes. Customers were happier, customer retention was better, shipping costs were reduced and when a more expensive carrier was required, everyone knew exactly why and what needed to be fixed.

From a financial perspective, the focus was shifted. By adopting automation tools, the finance team now spends less time gathering data and more time analyzing it. Consequently, finance has become more of a strategic business partner, rather than just the people who close the books at the end of the quarter. Finance has an important role explaining the operational story the data is telling and recommending remedies when needed. For example, if your customers tend to order smaller packages, how can you entice them to order in bulk to reduce shipping costs?

Different, better and more consistent data also helps manufacturers better manage labor costs. In manufacturing, direct labor costs go up and down with production volumes - one is a proxy for the other.

If management is seeing labor costs rising or falling, the important question to ask is: is there a direct correlation with production volume? If not, something is amiss. Did a big order come in? Was an order cancelled? Are there process problems that are eating into efficiency? Delays in getting materials or components?



Sometimes, it can be as simple as how you report the data. In one case, a supervisor had staff working 20 percent overtime. The numbers become more meaningful when they described people working 48 hours a week, rather than 20 percent overtime. The numbers tell a human story, rather than an abstract story.

Seize your competitive advantage

There will always be technological innovation in manufacturing, as the sector is seeing with advanced robotics, applied artificial intelligence, and the industrial Internet of Things connecting everything.

Keeping pace with that is a competitive necessity. But more manufacturers are discovering another competitive advantage through the evolution of the finance role.

For a growing number, finance is no longer just about closing the books and tracking the balance sheet. Finance people in today's world have to be able to bridge that gap. To understand the story the numbers are telling, they must understand how the business works.

Manufacturers that want to seize that competitive advantage should build a finance function and give it the tools to understand the business, to analyze operations and to actively contribute to achieving business goals.

About Prophix

Prophix develops innovative software that automates critical financial processes such as budgeting, planning, consolidation and reporting — improving a company's profitability and minimizing its risks. Thousands of forward-looking organizations in more than 90 countries use software from Prophix to gain increased visibility and insight into their business performance.

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