



Print-Business Software

When Only "Lean" Manufacturers Survive, It's Time to Consider ERP

By David Taylor

An operator oversees the laser creation of a die. Photo courtesy of Radius Solutions.

In recent years, survival of the fittest has become the mantra for businesses across various industries. For the flexographic printing trade, it has become a guiding principle. For years, printers/converters have been challenged by ways to avoid commoditization of their offerings while finding new methods to improve the bottom line. Rising costs of raw goods, shorter lead times, excess capacity and fiercely competitive pricing are just some of the issues that converters face in today's market.

In the past, simply buying a new piece of equipment or entering a new segment—such as the shrink-sleeve market—offered the quick fix necessary to stay in the game. Today, however, more printers are being increasingly proactive and "looking under the hood," so to speak, to find ways to become more efficient—not just to survive, but to succeed. This article will show printers/converters how they can vastly improve business efficiency by doing just that.

The fact is that most printers/converters cannot identify precisely which jobs are earning money and which are costing them money. Unlike the automotive industry—where products are mass-produced and processes are measured to a science—the printing/converting industry's output is unique. Whether the job is a pouch, bag, shrink label, corrugated box or folding carton, each one differs on press from the previous one.

Complicating matters further, consumer product companies are often more demanding. They expect innovative products and services to be tailored to their specific requirements and product marketing plans—and at a competitive price.

Taking the "Lean" Approach

Many converters have found that the nature of the flexographic printing business can make maximizing operational efficiencies challenging. They can gang a number of jobs, but this requires being able to see the specifics of what is in the pipeline, and using that intelligence to plan and react.

More often than not, each department operates independently in a job's lifecycle. The most prominent example of this is the estimating department. Instead of being a source of revenue generation, estimating can be a liability because it frequently operates independently from the rest of an organization. As a result, the estimating department cannot identify a job's statistics accurately; in turn, the profit/loss margin is either unknown or grossly distorted.

Flexo package printers and converters can better organize their businesses to meet the changing requirements of today's marketplace more effectively. Taking a "lean" manufacturing approach improves production and service operations, reduces waste, improves quality and drives down costs. This methodology is being adopted by an increasing number of converters in an effort to cut the "fat" out of every stage of the operation.

ERP: A "Lean" Tool

Converters can apply lean methodologies to their business to improve efficiency in the production workflow—from integrated communications to managing bottlenecks. Business-management software—also referred to as an enterprise resource planning (ERP) system—is a tool that can provide visibility throughout the printing/converting process.

Today, ERP systems make a fully integrated business possible. Business owners, CEOs, operational managers and others can see the implications of each job and its impact on other jobs.

The administrative, management and operational intelligence gained can be accessed to make effective decisions. For example, if a job is overrunning, a printer may choose to split a job across multiple presses. Such visibility lets the company know which jobs make money and which lose it, which means knowing which customers to keep with the same contract terms and which contracts to renegotiate.

The lean-manufacturing methodology dictates that every cost added to a production process is minimized. If a manufacturing process does not increase the value of the final output, then it is a cost. Business-management software sheds light on areas that need improvement. For example, re-keying an order adds a cost—both in resources and in opportunity for error.

Choosing an ERP System

There are many ERP systems available, and too often business managers go with the bigger, familiar names, choosing an ERP system that runs many of the world's largest companies. That is not necessarily the best choice, however, especially for the printing industry.

These generic systems are principally for manufacturers that assemble a range of standard, finished products from a large quantity of parts and sub-components, such as the automotive and personal computer industries. The output is produced in an identical fashion every time.

As every printer/converter well knows, however, printing plants run on a very different model. And converters that have implemented generic business-management systems know the pain of extensive customization costs and long installation cycles. For every dollar spent on the software license, they spend as much as \$5 on customization and up to two years in the installation process.

Fortunately, there are better solutions available. Today, several vertical niche-market ERP systems address the specialized manufacturing requirements of the ink-on-substrate industry, where each manufacturing order can be different. These industry-specific business-management systems are built on the industry's best practices; they "fit" printer/converter businesses. Today's converter will benefit from a system designed by industry experts who have pooled the best business processes into the software.

Implementing an ERP system intended for your specific business means dramatically less customization and a shorter implementation time. Installations typically run five to nine months for a single plant. Customization costs about \$.50 for every dollar spent on the software license. Implementation is more straightforward, and less customization means a much greater chance that the system will be deployed on schedule.

Unlike generic systems, industry-specific business-management software caters to printers' business practices and needs, including estimating, order processing and scheduling, and shop-floor data collection. Let's look at the benefits of each of these more closely.

Cost Estimating

Perhaps the most important fundamental requirement for printers is the ability to provide fast and accurate cost estimating. Although the bread-and-butter customers may be repeat business, converters still need the ability to bid for that business quickly and accurately.

Industry-specific business-management software is engineered to meet the requirements of various sub-sectors, including carton, roll label and flexible packaging. The end result is that converters have the ability to produce accurate estimates fast. Industry-specific software will also allow printers/converters to compare stock and production-route options, allowing estimators to select the most profitable way to run a job.

Order Processing & Scheduling

In a make-to-order business, where each order can be different, industry-specific business management software makes purchase orders easy to produce. Well-developed systems allow users to select appropriate sections from a pre-defined list. The software performs the rest of the task, from calculating necessary paper and coatings to press makeready and run times.

Scheduling is also a critical component of business-management software. Orders may be scheduled based on due date or other criteria. For example, operational managers can prioritize among stabilizing spikes in production, specifying a job order to minimize setup time, or determining availability of resources needed to complete a job when scheduling.

Shop-Floor Data Collection

Another important benefit of business-management software is the ability to access critical data about what is happening in the pressroom. Industry-specific ERP systems provide detailed information, such as a graphical view of the product on press and the current work-to list. It may also include an online view of job instructions or quality tests. Substrates can be tracked from order arrival through printing to finished product.

Also consider whether your pressroom would benefit from the ability to record actual quantity produced through a direct machine interface (DMI). When this capability is added to an ERP system, actual press counts are recorded from sensors located on the press. All transactions are visible to any authorized user on a real-time basis, allowing customer service representatives to see the exact stage of the job at any given moment.

Perhaps the most important benefit of an ERP system is the ability to compare a production estimate to actual costs. A fully integrated ERP system will be able to generate an automatic variance analysis by print job, allowing production managers and sales reps to effectively set and negotiate pricing.

Printer Case Study

A North American retail package printer has found numerous benefits from its business-management software. The company is able to analyze estimated costs versus actual costs, and the variances at each step along the way.

In using this feature, managers discovered that the firm was only breaking even with a high-volume packaging customer. By making price adjustments that worked for both printer and

customer, it was able to retain the client. The company's project leader commented, "We learned the hard way that even though you have high volume and lots of sales dollars, it doesn't necessarily mean that you're making money." Now, she added, "We're looking at data a lot more closely."

The software used by this converter was designed for the packaging industry and has required minimal modification and customization for the company's operations. Half of its 450 employees are active users of the business-management system, and nearly 75 percent are logging on to it.

"The business-management system is critical for helping us find ways that we can do better," said the project leader, "whether it's processes or roles. We also know that the system can handle future growth without having to add support staff."

Successful Implementations

Overall, the capabilities of a fully integrated and implemented ERP system for a converter are extensive. It should be noted, however, that even with the best technology in the world, the installation plan and methodology are just as critical. Clarity about the scope of the project and clear definitions of tangible and intangible benefits are prerequisites for successful implementation.

When a converter signs on with a vendor, both are entering a long-term partnership. Implementation can take from five to nine months and should be carried out over several phases, each with clearly defined and measurable objectives.

The first phase is the project initiation, in which the program's scope is determined, teams are identified and a plan is

developed. During the second phase, the converter can expect to see sample jobs running through the business-management system. Then, in the final phase of implementation, management is trained and the system is rolled out to the employees. Post-installation support and dedicated customer support staff ensure continued success.

The Standish Group reports that more than 84 percent of all IT projects fail, either by missing time deadlines, exceeding the budget or just not meeting the needs and expectations of the project. Be sure to work with suppliers that will put you in the "sweet 16" percentile by using a solid implementation plan and methodology.

Regardless of the vendor you choose, don't waste another day or lose another dollar with a mediocre or legacy business-management system. Talk to companies that have made the investment and will share their experiences. Learn from them, and your company will not only survive—it will succeed!■

ABOUT THE AUTHOR: David Taylor is president of Radius Solutions, Chicago, IL, provider of MIS/ERP software and services for medium to large printing and packaging companies worldwide. Taylor brings more than 18 years of professional and managerial experience in deploying software applications to the printing and packaging industry. Recently, he cultivated a "Lean Manufacturing" initiative for the TLMI (Tag & Label Manufacturing Institute) Industry Trends Committee. Taylor has a degree in computer science and an MBA from Cranfield University, UK. He can be reached at 312-648-0800 or david.taylor@radiusolutions.com.

ERP Investment Returns

Tangible:

- Centralizes like processes in a multi-plant environment.
- Consolidates procedures across functional areas.
- Eliminates the need for multiple entries (re-keying) of data.
- Reduces paper costs and handling.
- Reduces time required to look up information and correct data-entry errors.
- Allows access to system-generated reports and work instructions.
- Allows redeployment of trained, skilled people from repetitive manual tasks to value-added activities.

Intangible:

- Standardizes procedures.
- Instills confidence in system results.
- Provides visibility and consistency for management reporting.
- Provides real-time access to critical data.
- Compares standard vs. actual performance across departments and plants.

ERP Selection Methodology

1. Establish scope, budget and timeline.
2. Develop document that lists requirements.
3. Identify potential suppliers.
4. Verify industry fit.
5. Issue RFP.
6. Short-list three suppliers and obtain outline proposals.
7. Invite suppliers on site to carry out a needs analysis and overview demo.
8. Cut list to two suppliers.
9. Talk to references.
10. Develop ROI analysis with supplier.
11. Ask suppliers for a detailed workshop.
12. Flow three sample jobs from estimating to accounting departments.
13. Establish and document any gaps.
14. Request detailed proposal.
15. Select preferred vendor.
16. Negotiate contract.