Auditing ERP for Manufacturing Fit and Functionality

IQMS
Manufacturing ERP

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Does this describe your current ERP situation?

My ERP software is not manufacturing-specific and lacks the features and modules my shop floor needs. It is a general purpose or mis-purposed system that is really for wholesale distribution, accounting, etc.

In other words, your ERP system may be lacking software fit and functionality. Software functionality relates to the modules, tools and features available to meet the needs of your business, such as finance and accounting, inventory and purchasing, production execution, warehouse management and customer relationship management.

Software fit equates to how well those modules' functionalities meet the needs of your specific business type and practices. Two ERP systems can have the exact same list of functions, but behave entirely differently (An inventory control module designed for wholesale distribution is of little use to a manufacturer). Both functionality and fit are essential to finding the best ERP solution, so both should be given substantial consideration.

Functionality Audit: In a modern manufacturing environment, common wisdom maintains that three pieces of information technology are essential to growth and business success: Enterprise Resource Planning (ERP) software, a Manufacturing Execution System (MES) and Customer Relationship Management (CRM) software. While this wisdom is most certainly true, it can also be misleading, as ERP, MES and CRM are broad terms that often serve as placeholders for more detailed lists of the functionality necessary to optimize a manufacturing operation.

Below is a more specific list to assist in your internal audit of necessary software tools and features. When evaluating new or current ERP functionality, be sure to also consider whether the tools are native to the core system or whether they are third-party programs loosely integrated by the software vendor.

While integration of external programs can work, the process is often fraught with challenges such as duplicate data entry, information delays and silos, interface issues and customization expenses. The benefits of a native ERP solution are extensive, including visibility and traceability into every aspect of your business, employee-wide accountability and real-time speed and responsiveness.

You can use the list below two ways: To audit your current ERP software for manufacturing functionality, or if you are considering a new ERP system, to narrow your selection to two or three finalists. The Fit Acid Test later in this document is the ultimate arbitrator of which ERP system does or does not make the final cut.

ERP	Details
Financial Accounting	General ledger, fixed asset, payables receivables (cash application and collections), cash management, budgeting, costing
Order Processing	Order entry, credit checking, pricing, available/capable to promise, forecasting, sales analysis
Material Resource Planning	Production planning, resource planning, scheduling, inventory control, purchasing
Supply Chain Management	Planning, supplier scheduling, product configurator, purchasing, inventory, claim processing, warehousing
Electronic Data Interchange (EDI)	Electronic interfaces for customer and suppliers, POs, shipping notification, invoices
Warehouse Management	Receiving, put away, picking and packing
Business Intelligence Reporting & Dashboards	Standard reports, reporting writing, ad hoc queries, summary dashboards and alerts
MES	**Details**
Product Definitions	Version control and exchange master data focused on defining how to make a product
Production Scheduling	Production schedule, work orders, production requirements, received from ERP to make optimal use of resources
Production Dispatch and Execution	Distribution of batches, runs and work orders, adjustment to unanticipated conditions. Checks on resources and informing other systems about the progress of production processes
Process Monitoring	Collection of process data, equipment status, material lot information and production logs in a data historian. Performance analysis of raw production data. WIP overviews, period production performance, overall equipment effectiveness or any other performance indicator. Track and trace. Registration and retrieval of information that presents a complete history of lots, orders and equipment parameters that can feed a statistical process control module
Digitizing, Audit and Quality	Digitizing log data with edit lock, also pulling data from the supervisory control and data acquisition system into the common databank. Audit utilities to evaluate and document performance and events. Statistical quality control tools

CRM	Details
Customer Information	Company and contact information, sales history, contact history, open and closed opportunities
Prospect Information	Company and contact information, contact history, open and closed opportunities
Pipeline Management	Ability to report of the value and likelihood of open opportunities
Marketing Campaigns	Ability to create and track email campaigns
Customer Service Management	Company and contact information, open calls, closed calls, call metrics, ability to track service calls by issue type
Technology	**Details**
Single Database	All sub-systems run from one database and one native body of code
Real-Time	Information flows through the system in real time. There are no batch updates
Ability to Manage Multiple Locations	Total cross-location visibility of all information in real time
Ability to Scale Users	Ability to maintain performance within broad user, load and storage parameters
Deployment	Software licenses purchased and deployed on company premises. Software licenses purchased and deployed at a third-party data center. SaaS or Cloud software rented from a software provider and hosted in their data center

Fit Acid Test(s): Once you have audited the functionality and fit with the tools above, ask your team the following question, "What makes our business unique and what thing(s) do we do that makes us consistently profitable?" For some, it will be changing colors on the fly, for others it will absolute cost control and for still others is might be a unique pricing plan. It has been my experience that every business has a secret sauce that is actually an essential business strategy. Dene that strategy and determine with absolute certainty that the ERP systems you are evaluating can implement it perfectly.

Perform this simple acid test, check the boxes on function and fit and determine that your top vendors offer a choice of deployment options and chances are very high you will pick the right finalists.

About IQMS

IQMS uniquely combines ERP and manufacturing execution system (MES) functionality to give manufacturers a comprehensive end-to-end suite for running the business, backed by the real-time performance and scalability companies demand. Developed specifically for mid-market repetitive, discrete and batch process manufacturers, IQMS provides robust capabilities for addressing strict customer and regulatory certification and compliance. IQMS achieves this by delivering traditional ERP functionality for accounting, sales orders, material requirements, inventory and purchasing, plus extended native features for CRM, human resources, production scheduling, shop floor control, warehouse and quality modules. With offices across North America, Europe and Asia, IQMS serves manufacturers around the world.

For more information, please visit www.iqms.com.