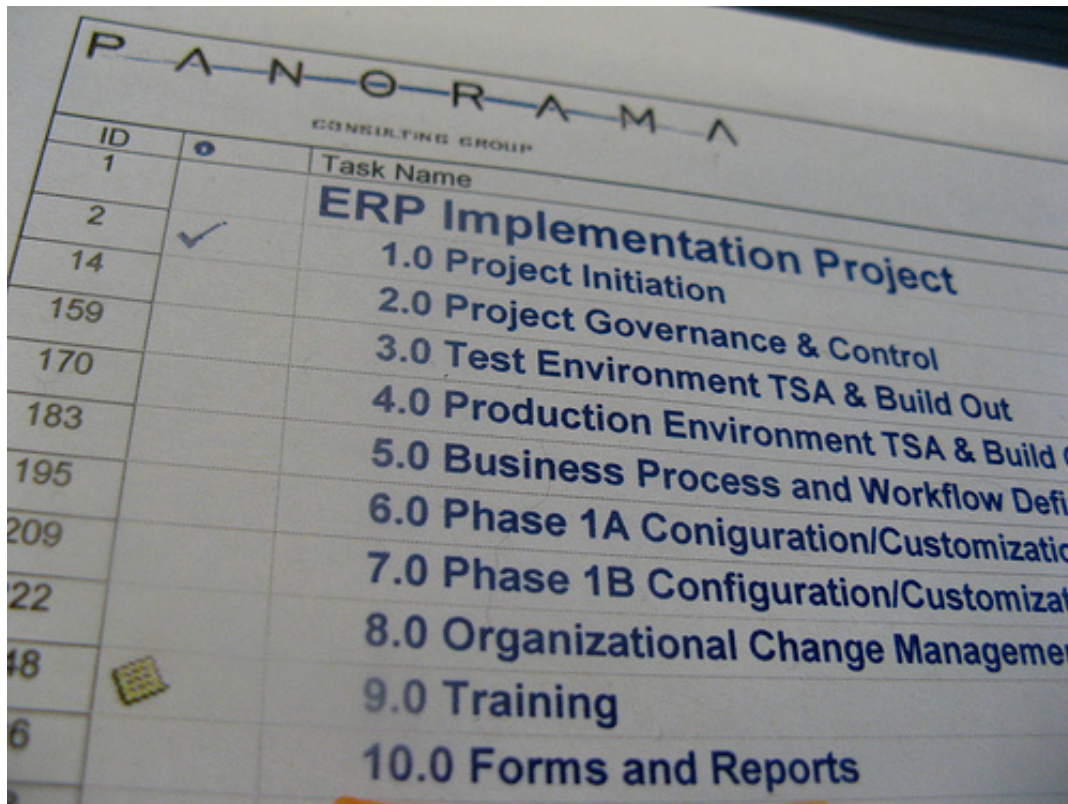


P A N O R A M A

CONSULTING GROUP

2008 ERP REPORT PART IV

ERP in the Manufacturing and Distribution Industry



ID	Task Name
1	ERP Implementation Project
2	1.0 Project Initiation
14	2.0 Project Governance & Control
159	3.0 Test Environment TSA & Build Out
170	4.0 Production Environment TSA & Build C
183	5.0 Business Process and Workflow Defir
195	6.0 Phase 1A Coniguration/Customizatio
209	7.0 Phase 1B Configuration/Customizati
22	8.0 Organizational Change Managemen
18	9.0 Training
6	10.0 Forms and Reports

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Introduction

ERP systems are designed to integrate key operations across a company's back office, from planning through execution, management, and control. A key feature of an ERP system is that it can link all internal business processes, such as manufacturing, distribution, financial, and human resources, in a cohesive and coordinated way. Although ERP was originally designed primarily for manufacturing plants, ERP software now meets the business requirements of many industries.

The business needs of manufacturing and distribution organizations have evolved in recent years. Industry consolidation, global supply chains, and outsourcing have caused many companies to rethink their business models. As a result, many manufacturers and distributors have outgrown their older legacy ERP systems and are leveraging the enhanced functionality and flexibility of more modern systems to improve their operations.

This Part IV of our 2008 ERP Report focuses on the use of ERP software at companies in the manufacturing and distribution industry, including information surrounding average implementation budget, duration, and actual costs. The study also reveals other data related to ERP implementations in the industry, such as the level of customization and ERP modules deployed.

Below are the sub-industries included in the data outlined in this portion of our study:

- Consumer products: manufacturers and distributors of branded consumer products
- Telecommunications: telephone, radio, television
- Energy: petroleum, gas, electrical power, coal, renewable energy, traditional energy
- Engineering: biotechnology, emerging technologies, nanotechnology, synthetic biology
- Construction: building construction, civil construction, industrial construction
- Transportation: aerospace manufacturing, automobile manufacturing, tire manufacturing
- Food and Beverage: agribusiness, brewing, food processing
- Retail: retail distribution
- Metal working: steel production, machine tools, tool and die makers
- Others: plastics, semiconductor, pharmaceutical, and jewelry

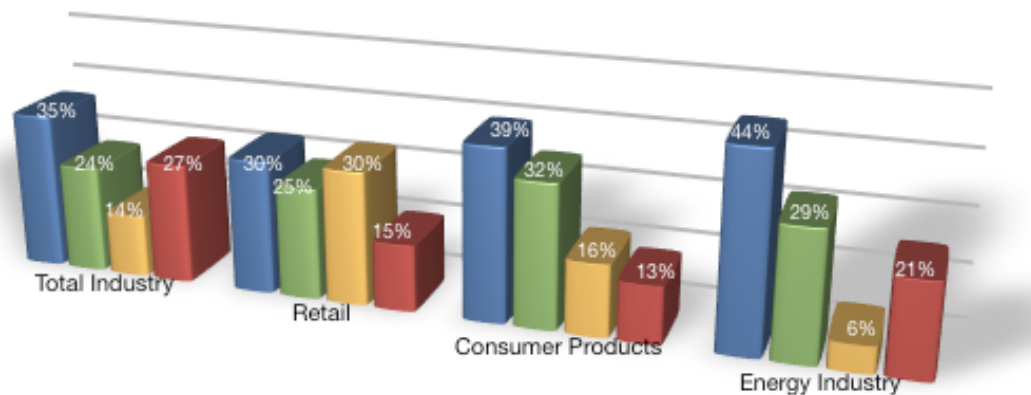
ERP Market Share

According to our study, SAP has the leading market share among manufacturers and distributors, followed by Oracle and Microsoft. The results reveal that the market share is comparable to the findings of

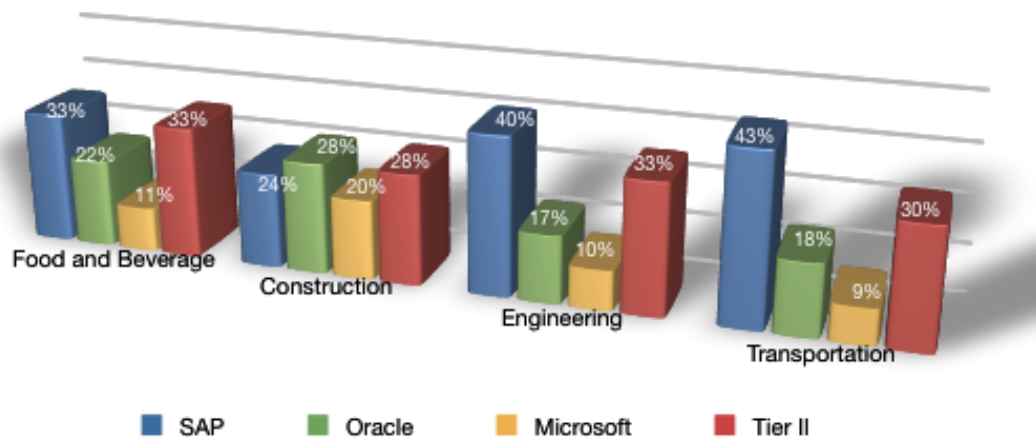
the total sample sizes outlined in our previous ERP reports. However, the relative market shares of ERP software vendors differs among the sub-industries within the overall industry.

Tier II vendors have a 27% share in the overall manufacturing and distribution ERP market (Figure A), which is more than the market share of total sample size from our previous ERP Report, 23% (see ERP Report, Part II). The market shares of Tier II vendors are fairly comparable in the construction, food and beverage, engineering, and transportation sub-industries. Companies in the food and beverage, construction, engineering, and transportation sub-industries are the most likely to implement Tier II ERP solutions.

Figure A: ERP Market Share By Sub-Industry



Industries With Stronger Tier II Market Share



On the other hand, only 12.9% of consumer product companies adopt Tier II vendors while almost 70% of these companies select either SAP or Oracle. In the energy industry, the market share of SAP and Oracle is over 73% combined.

These differences reveal that companies in the manufacturing and distribution industry have several viable ERP solutions to choose from beyond the Tier I providers. There are plenty of Tier I and Tier II solutions that meet the needs of manufacturers and distributors.

ERP Implementation Results

According to Panorama's study, over 40% of manufacturing and distribution ERP projects exceed planned implementation duration by 5% to over 100%. Moreover, 57% of ERP projects go over budget by 5% to 125% relative to planned budgets.

Average ERP implementation costs and durations vary based on the size and scope of the implementing organization. Organizations of all sizes take an average nearly 20 months to fully implement their ERP solutions, while the average manufacturing and distribution company takes closer to 19 months (Figure B). In addition, the average company in the industry spends four months on the ERP evaluation, selection, and implementation planning process.

Figure B: Implementation Duration

	Selection & Planning	Implementation	Total Duration
Manufacturing & Distribution	4.2	15.0	19.2
All Industries	4.9	14.9	19.8

The average cost of implementation in the manufacturing and distribution industry is \$8.2 million, with an average cost to revenue ratio of 8.6% (Figure C). This compares to \$8.5 million and 10.5% of revenue for all industries. Issues such as customization level, implementation size, scope, and business process complexity all affect total implementation duration and cost.

Figure C: ERP Implementation Costs

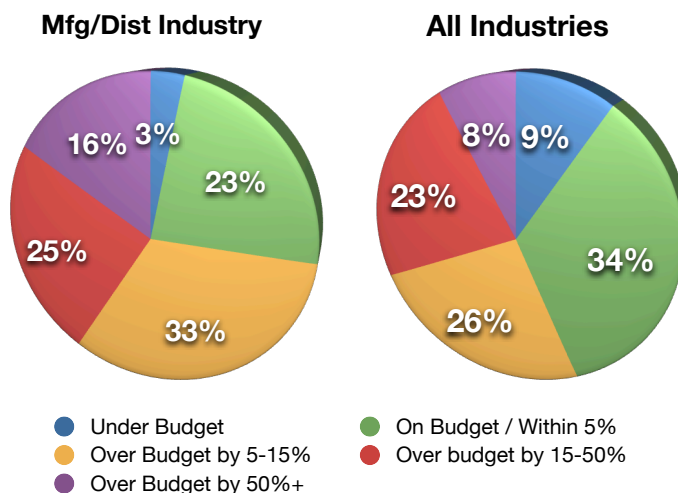
	Technical Implementation	Business Implementation	Additional Costs	Total Cost	Cost/Revenue
Manufacturing & Distribution	\$5,593,065	\$1,874,173	\$739,226	\$8,206,648	8.6%
% of Total Cost	68.2%	22.8%	9.0%		
All Industries	\$5,882,285	\$2,034,176	\$554,246	\$8,470,707	10.5%
% of Total Cost	69.4%	24.0%	6.5%		

Companies in the industry spend 68% of their ERP budgets on the technical aspects of implementation, compared to 69% for all industries. Moreover, manufacturers and distributors spend 23% of their budgets

on business implementation costs, including third-party business consulting fees, and 9% on other miscellaneous implementation costs.

As outlined in previous installments of our report, it is not uncommon for ERP initiatives to ultimately cost more than expected. Nearly 74% of manufacturing and distribution companies spend more than planned on their ERP total cost of ownership, compared to 67% for all industries in our study (Figure D). In addition, only 3% of manufacturers and distributors implement ERP with less money than anticipated, compared to 9% for companies in all industries combined. These results suggest that companies in this industry are more likely to spend more money and take longer to implement their ERP solutions compared to expectations than their counterparts in other industries.

Figure D: Budgeted Versus Actual Cost



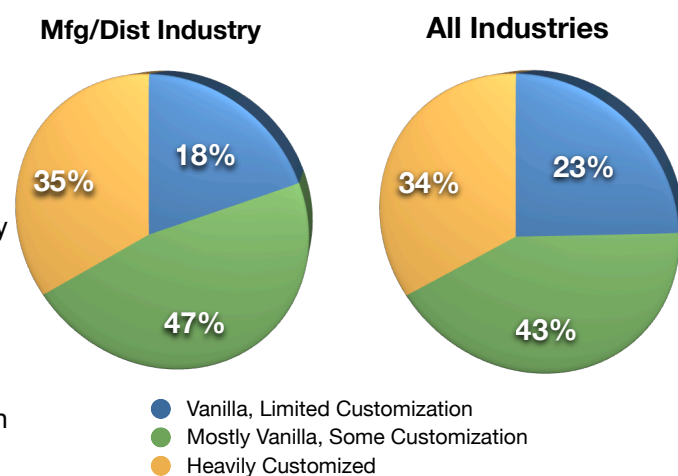
ERP Implementation Results

ERP Customization Level

Our study also examines the level of customization employed by manufacturers and distributors. During implementation, companies take one of three approaches to customization: 1) change business processes to accommodate ERP functionality, 2) customize ERP functionality to accommodate current business processes, or 3) change business processes independent of ERP, then select or configure software to align with new processes.

Only 18% of manufacturing and distribution companies implement ERP with a plain vanilla approach, compared to 23% of organizations in all industries (Figure E). Nearly 82% of companies in the industry perform either some or heavy customization of their chosen ERP software, with 35% performing heavy customization of their software. This relatively high degree of customization relative to other industries can be attributed to the high degree of specialization and complexity inherent in many manufacturing and distribution organizations.

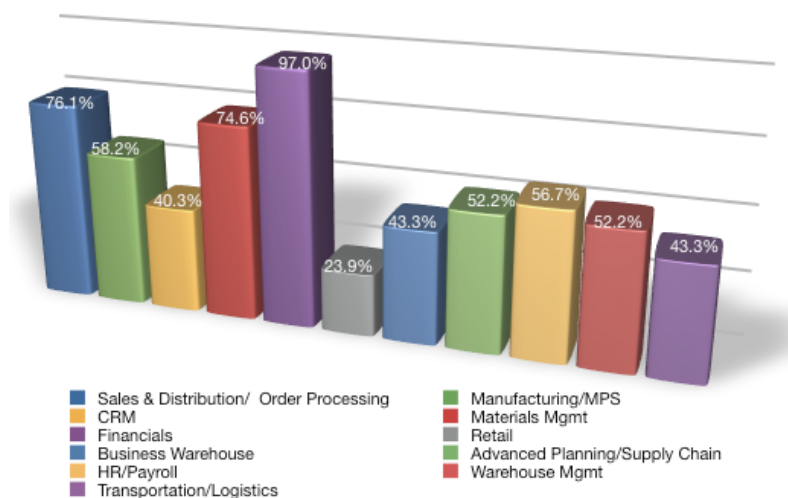
Figure E: Software Customization Level



ERP Modules Implemented

Software functionality and scope is another driver of ERP implementation cost, duration, and business benefits. Our findings reveal that financials, sales & distribution/order processing, and material management are the most common ERP modules implemented by companies in the manufacturing and distribution industry (Figure F). Almost 97% of the companies implement financial management modules, and over 70% of the companies deployed sales management, order processing, and/or materials management modules.

Figure F: ERP Modules Implemented



Conclusion

ERP solutions can help manufacturing and distribution companies increase operational efficiency, coordinate global supply chains, and modernize their warehousing and logistics functions. However, as illustrated in this report, the costs and benefits are advantageous only if the ERP selection and implementation process is managed effectively.

The first step in a successful ERP initiative is to choose the right software. Our research indicates that manufacturing and distribution companies have a variety of Tier I and Tier II ERP solutions at their disposal. In addition, effectively managing the ERP implementation process is equally important. Companies such as Panorama Consulting Group offer independent ERP software selection and implementation expertise and tools that will help reduce your total cost of ownership and optimize measurable business benefits.

About Panorama Consulting Group

Founded in 2005, Panorama Consulting Group is a niche consulting firm specializing in the enterprise resource planning (ERP) market for mid-sized companies across the globe. Independent of affiliation, Panorama helps firms evaluate and select ERP software, manages the implementation of the software, and facilitates all related organizational changes to assure that each of its clients realizes the full business benefits of its ERP implementation. More information can be found on its web site, www.panorama-consulting.com. Contact Panorama Consulting at 303-256-6253 or info@panorama-consulting.com.