

PANORAMA

CONSULTING GROUP

2009 ERP REPORT

Aerospace and Airlines Industry



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Introduction

Enterprise Resource Planning was introduced more than 40 years ago and was designed primarily for manufacturing plants. Nowadays, ERP software vendors create several modules to work and benefit numerous types of businesses, such as those in the aerospace, automotive, chemicals, electronics, and plastics industries.

Numerous ERP software vendors now create modules to work specifically with the Aerospace and Airlines industry. With the increased global competition and complex industrial alliances, companies in this industry need to have extensive rapid management capabilities, the ability to control cost while being competitive, and be dynamic to change and compete with the market. This ERP concept was also brought into Asia, Australia and South Africa, and has started to have great influence in the industry.

There were 670 participants in this portion of our study and this included data from organizations in the US, Europe, Australia, and Asia. Moreover, our study of ERP implementations across the globe consist of a wide variety of leading ERP solutions. In addition to the two dominant ERP vendors, SAP and Oracle, our study also includes Microsoft and Tier II solutions such as Epicor, Exact, IFS, Infor, Lawson, Netsuite, Sage, Syspro and others.

From Panorama's previous ERP reports, we revealed the results of implementing ERP from different points of view, such as the comparisons among deploying Tier I and Tier II software vendors, as well as the different outputs between SMBs and large companies. In this report, we focus on the comparison among the results of our total sample size, the large organization group, and the Aerospace and Airlines Industry specifically.

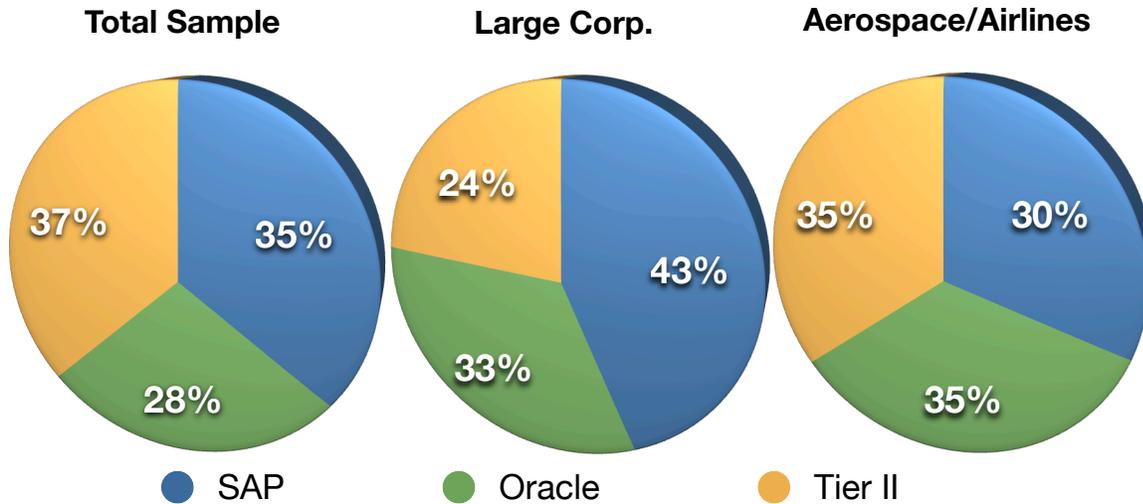
The following chapters include how the distribution of ERP market changes with the different groups, what the duration and implementation costs of ERP projects are among these groups, and some ERP implementation variables.

Overview of the ERP Market in Aerospace and Airlines

As outlined in our previous ERP reports, Tier I vendors such as SAP and Oracle have a dominate influence in the ERP market. Based on the results of our total sample size, which includes SMBs and large companies, Tier I vendors have almost 73% of the ERP market, with SAP owning 35% and Oracle owning 28% of the market (Figure A). Among large organizations, SAP has approximately 43% of the ERP market compared to Oracle at 33%, and 25% for all other vendors. The assumptions we use to define large companies are more than 500 employees and more than \$500 million (USD) in annual revenue.

The distribution of market share in the Aerospace and Airlines industry, however, reveals a slightly different pattern. Based on our study of ERP vendors within this industry, Oracle has the largest share (35%), followed by SAP (30%), and all other vendors combined (35%).

Figure A: ERP Market Share



Cost and Duration of Implementing ERP

The average ERP implementation duration in the total sample is 19.8 months, with some difference based on the specific ERP software being implemented. This data excludes some very large, multi-national organizations, which would have skewed the data.

However, the average duration for large companies is higher at 25.2 months, and the duration of the Aerospace and Airlines industry averages 28 months (Figure B). The data from our survey illustrates that most companies in the Aerospace and Airlines industry are considered large organizations, which results in higher average ERP implementation durations and costs.

In addition to implementation duration, our study also evaluates average implementation costs. When considering companies of all sizes and industries, the average total cost of implementation is \$8.5M (Figure B). The average implementation cost for large organizations is \$24.1M, which is almost three times the cost of the total sample size.

In the Aerospace and Airlines industry, the average implementation cost is even higher at \$31.5M. When excluding very large- and small-scale implementations that skew the average results, the average implementation cost is \$17.3M.

In the last column of Figure B, the ratio of ERP project costs to revenue (sales) is 9.0% for the total sample size, and drops to 5.6% for the Aerospace and Airlines industry and 4.9% for large companies overall.

The ratio is lower for larger companies, partly because ERP implementations entail fixed investments that can be shared across a larger organization.

Figure B: Implementation Results

	DURATION	IMPLEMENTATION COST	COST/REVENUE
Total Sample	19.8	\$8,470,707	9.0%
Large Organizations	25.2	\$24,069,582	4.9%
Aerospace/Airline Industry	28.0	\$31,509,056	5.6%
Aerospace/Airline Industry (Excluding extremely large)	26.2	\$17,316,667	6.8%

ERP Implementation Variables

One of the other causes that relates to ERP cost and duration is the level of software customization. The duration and cost of implementation in both large organizations and Aerospace industries are longer and higher than that of our total sample size (Figure C). The data in Figure C also shows the difference between the proportion of larger companies customizing their ERP systems versus those adopting “vanilla” off-the-shelf software.

Based on our study, the Aerospace and Airlines industry requires more ERP software customization to meet its business requirements than other industries. Nearly 90% of companies in this industry reveal the need for customization, with 63% of the companies demanding some level of customization and 27% customizing ERP systems heavily or completely. On the other hand, only 77% of companies across all industries and 85% of large organizations customize their software. Just 9% of Aerospace companies adopt vanilla, out-of-the-box software, compared to 15% in large companies and 23% in all companies.

Figure C: Software Customization Level

	Vanilla	Mostly Vanilla	Heavily or Completely Customization
Total Sample	23.0%	42.8%	34.2%
Large Organizations	15.2%	45.0%	39.7%
Aerospace/Airlines	9.1%	63.6%	27.3%

Large corporations utilize more ERP implementation team members than small to mid-size organizations (Figure D). Large organizations require two times the internal ERP implementation team members, including staff in internal core project and subject matter experts, than the team members required for companies of all sizes.

Aerospace and Airline companies utilize an average of 18 full-time equivalent (FTE) internal resources to support their ERP implementations. Large organizations require 28 FTE team members and 14 subject matter experts. In addition, large companies leverage an average of 31 full-time equivalent external resources such as consultants, while those in the Aerospace and Airline industry require 11 external FTEs.

Figure D: Number of Implementation FTE Resources

	Internal Core Project	Internal Subject Matter	External Implementation
Total Sample	14	6	11
Large Organizations	28	15	31
Aerospace/Airlines	18	14	14

Conclusion

As outlined in previous installments of our 2009 ERP Report, ERP software can provide tremendous benefits to organizations in the Aerospace and Airline industry. However, ERP initiatives can be risky if not managed appropriately. Risks for companies in this industry include more complex business and regulatory requirements, which increases the potential need for ERP software customization to meet these needs. In addition, ERP implementations often take more time and cost more money than those in other industries, which underscores the need for an effective ERP selection and implementation process to manage cost and risk.

It is critical to have a thorough understanding of your company's needs to find and implement the right ERP software solution for your business. 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 realize measurable business benefits.

	TOTAL SAMPLE	LARGE ORGANIZATIONS	AEROSPACE/AIRLINES
Duration (Months)	19.8	25.2	28.0
Cost of Implementation	\$8,470,707	\$24,069,582	\$31,509,056
Cost / Revenue	9.0%	4.9%	5.6%
# of Total FTEs	31	74	46
Customization Level	Low	High	Highest

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 in North America and Europe. 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 realize 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.