



CLASH OF THE TITANS 2017

An Independent Comparison of SAP, Oracle,
Microsoft Dynamics and Infor

Introduction

Panorama Consulting Solutions, an independent, vendor-neutral ERP consulting firm, developed its annual Clash of the Titans analysis to compare the “titans” of the enterprise software industry: SAP, Oracle, Microsoft Dynamics and Infor.

Clash of the Titans 2017 analyzes responses collected from Panorama’s ERP Benchmark Survey between October 2015 and November 2016. The dataset includes 470 respondents who have selected or implemented SAP, Oracle, Microsoft Dynamics or Infor ERP solutions. The analysis is based on all solutions offered by the four vendors and is not segmented by industry. Panorama is in no way affiliated with SAP, Oracle, Microsoft Dynamics, Infor or any other software vendor or reseller.



About SAP

SAP began as an enterprise software provider and, today, is one of the leading players in the ERP market. SAP developed close relationships with a variety of alliance partners, which fueled its growth through the 1990s and 2000s. There are several third-party developers who supply add-ons that work in conjunction with SAP products.

SAP offers ERP solutions appropriate for all sizes of organizations. SAP Business Suite is a set of integrated business applications that provides industry-specific functionality and scalability for fortune 100 companies. SAP's other offerings include SAP Business All-in-One and SAP Business One.

SAP Business All-in-One is a comprehensive, integrated enterprise software that offers industry-oriented solutions for small- to mid-sized organizations. The software is template-based and is a configurable derivative of SAP Business Suite.

SAP Business One is a single, integrated application designed for small- to mid-sized organizations. It mainly supports the retail, wholesale, services and manufacturing industries. With third-party add-ons, SAP Business One supports a variety of industries and functions.

SAP also offers SAP ByDesign, which supports startup or small organizations. As a SaaS platform, SAP ByDesign has low upfront costs and may require fewer IT resources than traditional enterprise software.



About Oracle

Oracle was originally known for its database systems rather than its enterprise software. The organization expanded its share in the ERP market through organic growth and a number of high-profile acquisitions including NetSuite, JD Edwards, PeopleSoft, Siebel CRM and the like. Given this particular growth model, Oracle has become a configurable and flexible option and offers a best-of-breed option for its customers. The 2016 purchase of NetSuite expanded the cloud options offered by Oracle and improved the distribution and engineering depth of functionality.

JD Edwards supports the manufacturing industry especially well. It is an integrated applications suite that supports a variety of business processes with one common database. JD Edwards EnterpriseOne has an open platform, which supports different operating systems, databases and middleware from Oracle and other vendors.

Oracle provides different deployment options including on-premise and cloud. Although the eBusiness Suite and JD Edwards applications continue to be developed there is a large focus on Oracle Cloud Applications. Best practices from EBS, JDE, PeopleSoft (HCM) and Siebel (CRM) are being developed into an end-to-end ERP. While the Cloud Applications have strong functionality, large enterprises with complex environments still rely on the functionality of legacy on-premise products.

The Oracle logo is displayed in a bold, red, sans-serif font. It is centered horizontally and overlaid on a grayscale background image of a volcanic eruption, showing a large plume of white smoke and ash rising into the sky from a dark, rocky vent. A registered trademark symbol (®) is located at the top right of the letter 'E'.

About Microsoft Dynamics

Microsoft Corporation entered the arena of enterprise software through acquisition. In 2000, Microsoft acquired Great Plains, one of the first accounting packages in the U.S. that was designed to be multi-user and to run under Windows as 32-bit software.

Microsoft Dynamics GP, the former Great Plains product, is designed for small- to mid-sized businesses desiring a simple, out-of-the-box solution. Microsoft Dynamics NAV, is designed for small- to mid-sized businesses that need broader functionality and the ability to customize their software. Microsoft Dynamics AX is the flagship of the Microsoft Dynamics offerings, and is geared toward larger, enterprise-wide implementations. Other products within the Microsoft Dynamics product line include Dynamics SL, which is designed for project-oriented businesses, and Microsoft AX 2012 R3, which incorporates industry-specific functionality for the manufacturing, distribution and services industries as well as the public sector.

Microsoft has recently rebranded their suite of products, which is now called Dynamics 365. Their enterprise and flagship ERP, Dynamics AX, is now called Dynamics 365 Enterprise. This new version of the product is cloud-based and includes Microsoft CRM as a fully-integrated application. Dynamics 365 Enterprise still targets large, complex companies, but it is more scalable in cost for licensing and implementation. Best practices from the NAV, GP and SL products are now referred to as Dynamics Business Suite.



Microsoft Dynamics™

About Infor

Infor automates critical processes for industries that include healthcare, manufacturing, fashion, wholesale distribution, hospitality, retail and the public sector. Whether customers want to deploy on-premise, in the cloud or a combination of both, Infor has the infrastructure and resources to support it.

Infor's in-house creative lab, Hook & Loop, has grown into one of the largest creative agencies in Manhattan since its inception in 2012. Infor also formed Infor Dynamic Science Labs to help embed science and machine learning directly into Infor applications.

Infor's continued push to the cloud has added more functionality to their CloudSuite products. Best practices used in applications, such as Syteline and SXe, are now the in the CloudSuite Industrial and Distribution. Infor also has focused on improving its M3 product to provide strong functionality in verticals such as process manufacturing and fashion.

Another leading application from Infor is Mingle. This collaboration tool enables discussion trails, status reports and task management among end-users. Industries seeing a high adoption of Mingle include design / manufacturing, project accounting / management and services industries.



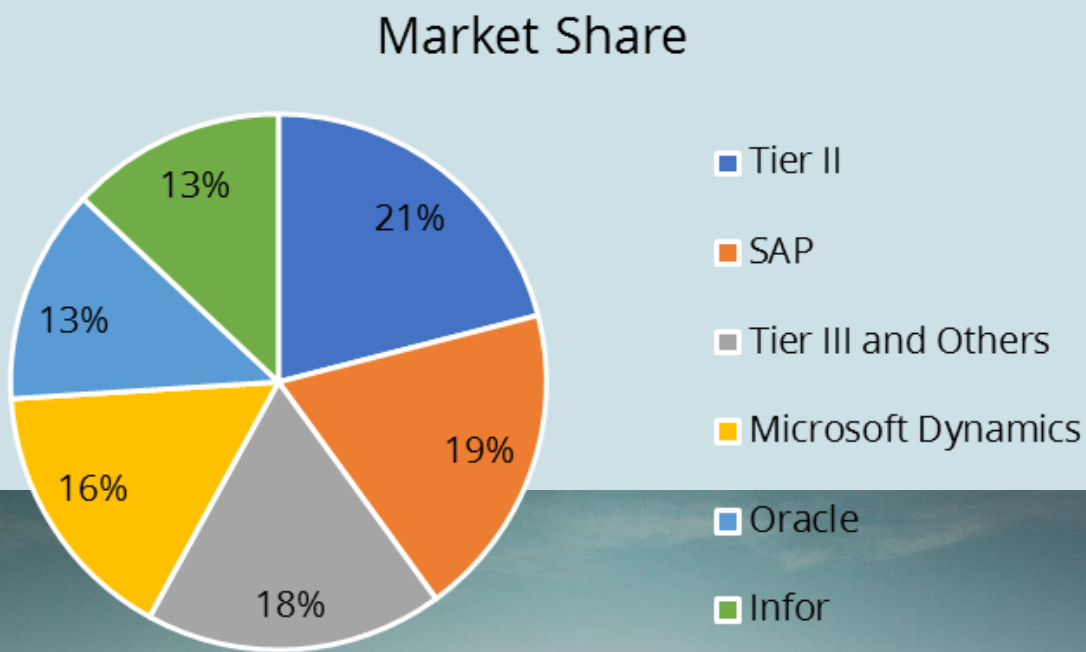
infor

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Market Share

Clash of the Titans 2017 provides market share statistics based on the frequency that each vendor was selected by organizations represented in our survey.

Of the four titans, SAP holds the most market share (19-percent), followed by Microsoft Dynamics (16-percent). Oracle and Infor each hold 13-percent of the market.



Source: Clash of the Titans
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Most Market Share = SAP

Short-list and Selection Rates

Short-listing is the process of culling the long list of potential ERP vendors to a smaller list of solutions. Among the key data points in this report are the rates that SAP, Oracle, Microsoft Dynamics and Infor are short-listed and the rates that each vendor is selected after short-listing.

The data show that SAP is the most frequently short-listed vendor.

Vendor	Short-listing Rate
SAP	38%
Microsoft Dynamics	31%
Oracle	18%
Infor	13%

In terms of selection rate after short-listing, SAP also comes out on top.

Vendor	Selection Rate
SAP	38%
Microsoft Dynamics	22%
Oracle	22%
Infor	19%

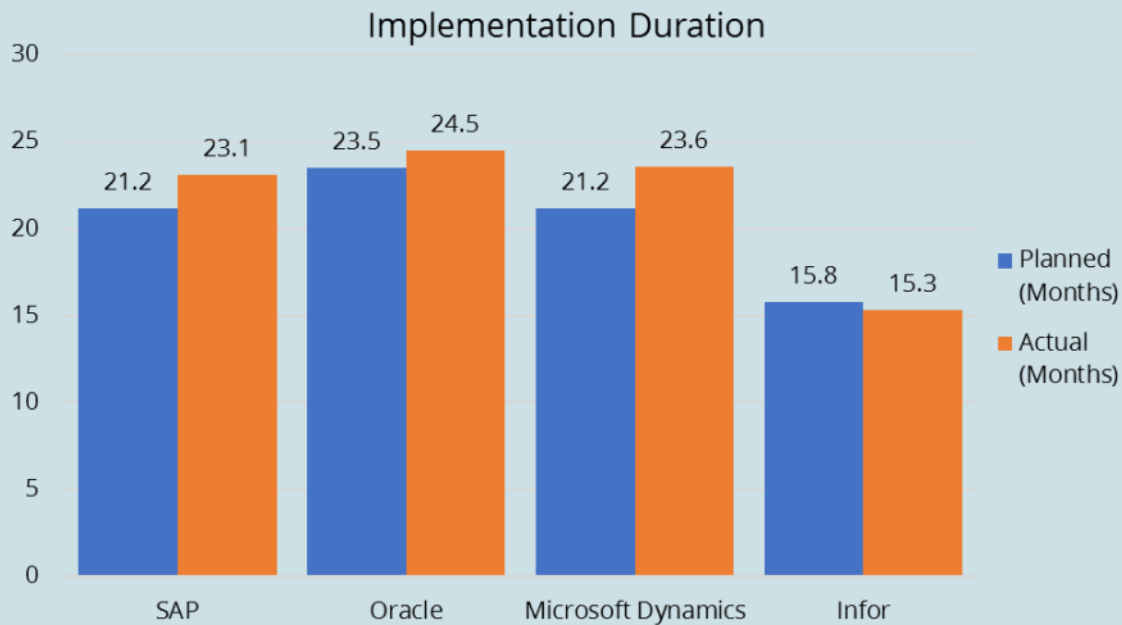
Highest Short-listing and Selection Rates = SAP

While both the short-listing and selection rates are strong for SAP, there is no evidence that every organization makes the right decision by choosing SAP. Rather than considering these findings indicative of a vendor's suitability, it is useful to view them as broader data regarding trends in the sales cycle experienced by the four vendors.

Implementation Duration

Implementation duration is influenced by many factors including implementation approach, type of software, complexity of business processes, industry, organization size and level of customization. Extended implementation duration is a common occurrence within organizations that don't take the time to properly plan and set realistic expectations.

All vendors except Infor show an increase between planned and actual implementation duration.



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Please note that implementation duration periods begin at the time of purchase and end upon full functionality.

**Largest Delta =
Microsoft Dynamics
(11% increase)**

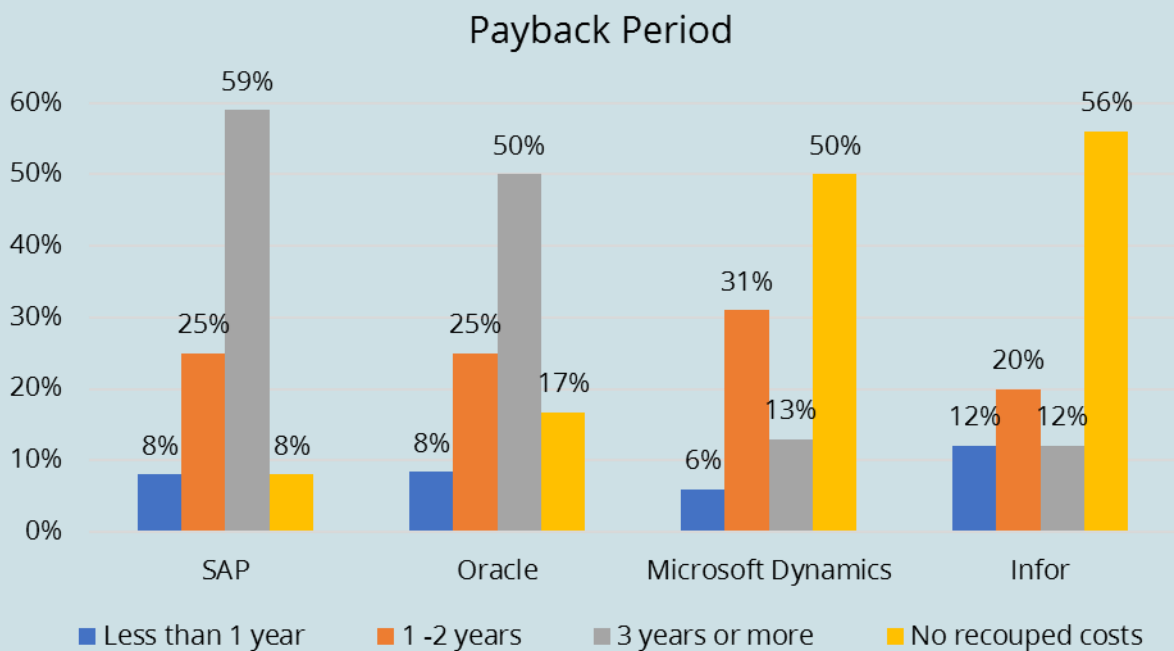
**Smallest Delta =
Infor
(3% decrease)**

**Longest Duration =
Oracle**

**Shortest Duration =
Infor**

Payback Period

Payback is defined as the point in time when the organization recoups its initial investment. This metric can only be determined if key performance indicators and baseline measurements are put into place prior to implementation. Panorama's research shows that payback typically happens after three years. It takes time for people to learn a new system and use all of its functionality so it may take just as long to realize benefits.



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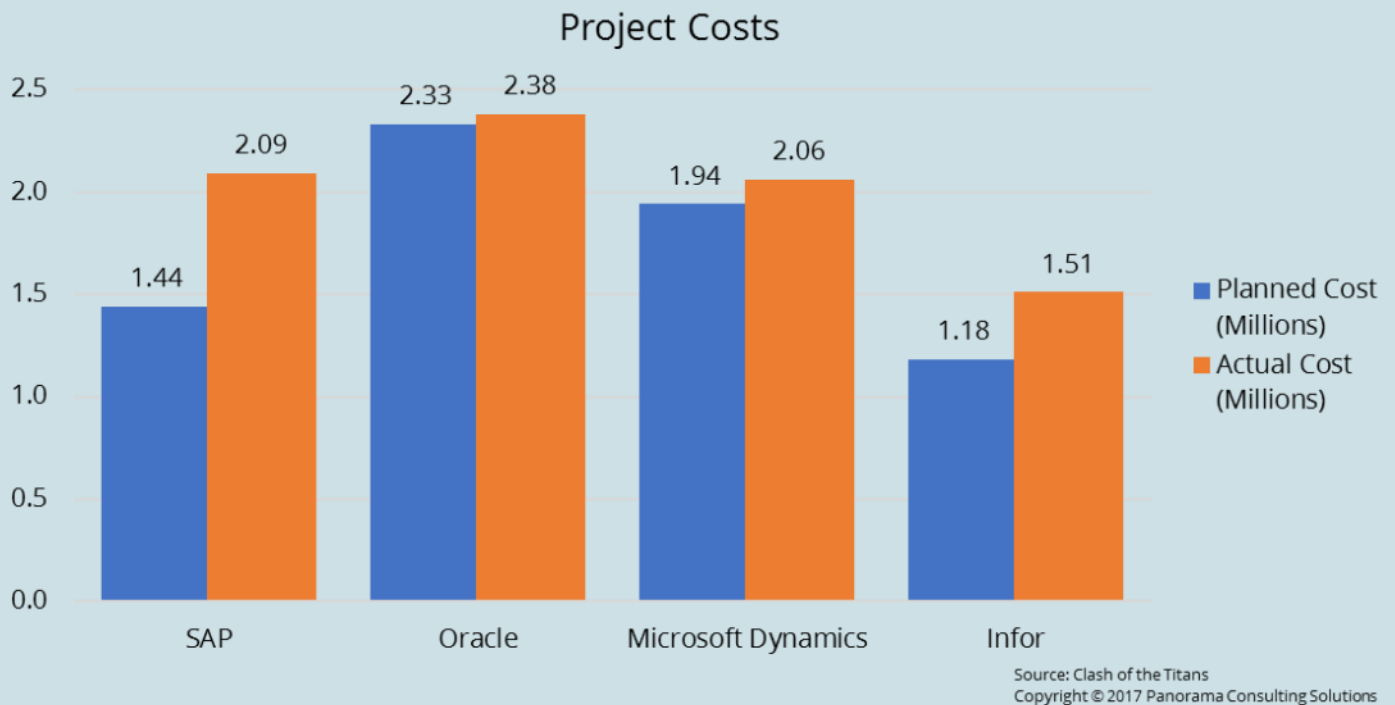
**Shortest Payback
Period = Infor
(8.5 months)**

**Longest Payback
Period = SAP
(30 months)**

**Most Respondents
With No Recouped
Costs = Infor**

Project Costs

Organizations that plan for all components of a successful implementation will reduce their risk of cost overruns. All vendors show an increase between planned and actual total cost of ownership.



In terms of actual total cost of ownership, Oracle is the most expensive (\$2.38 million), followed by SAP (\$2.09 million), Microsoft Dynamics (\$2.06 million) and Infor (\$1.51 million). Compared to the previous year, total cost of ownership has decreased for all vendors with the exception of Microsoft Dynamics, which slightly increased.

**Largest Delta =
SAP
(45% increase)**

**Most Expensive =
Oracle**

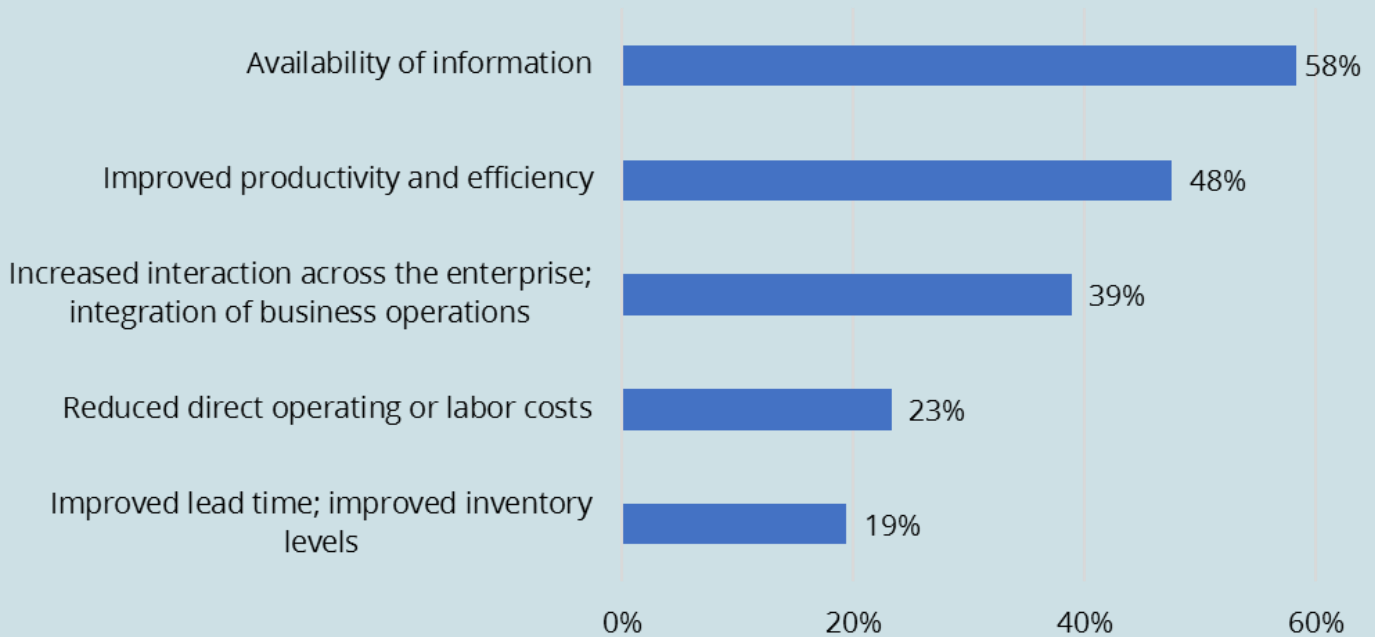
**Smallest Delta =
Oracle
(2% increase)**

**Least Expensive =
Infor**

Business Benefits

Business benefits are measurable but look different for every organization. Respondents reported the benefits they realized from their ERP implementations, and the most common was availability of information. Organizations also realized improved productivity and efficiency as well as increased interaction across the enterprise.

Types of Benefits Realized



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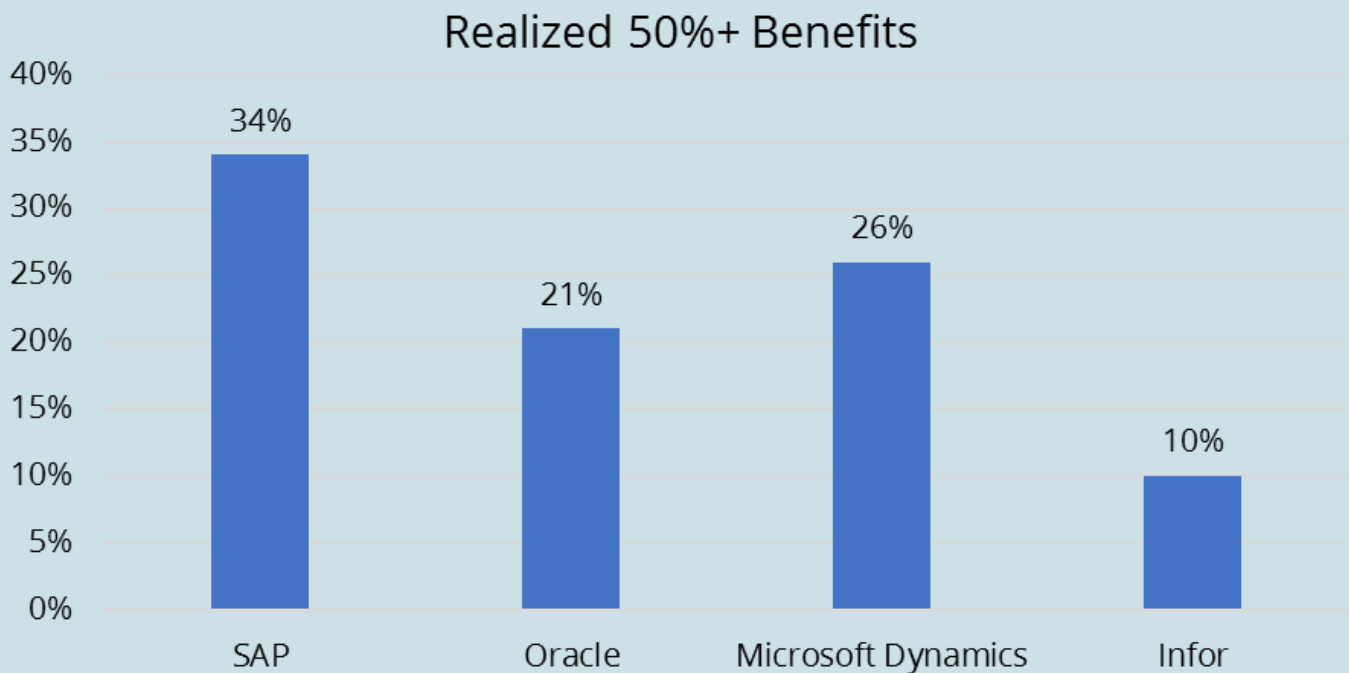


58% of SAP, Oracle, Microsoft Dynamics and Infor customers realized greater availability of information as a result of their ERP implementations.

Benefits Realization

Benefits realization reflects the measurable benefits achieved versus the measurable benefits projected in each respondent's business case. Organizations that outline the types of benefits they expect can more accurately measure these benefits following implementation.

Very few organizations - implementing any software - realized at least 50-percent or more of expected business benefits.



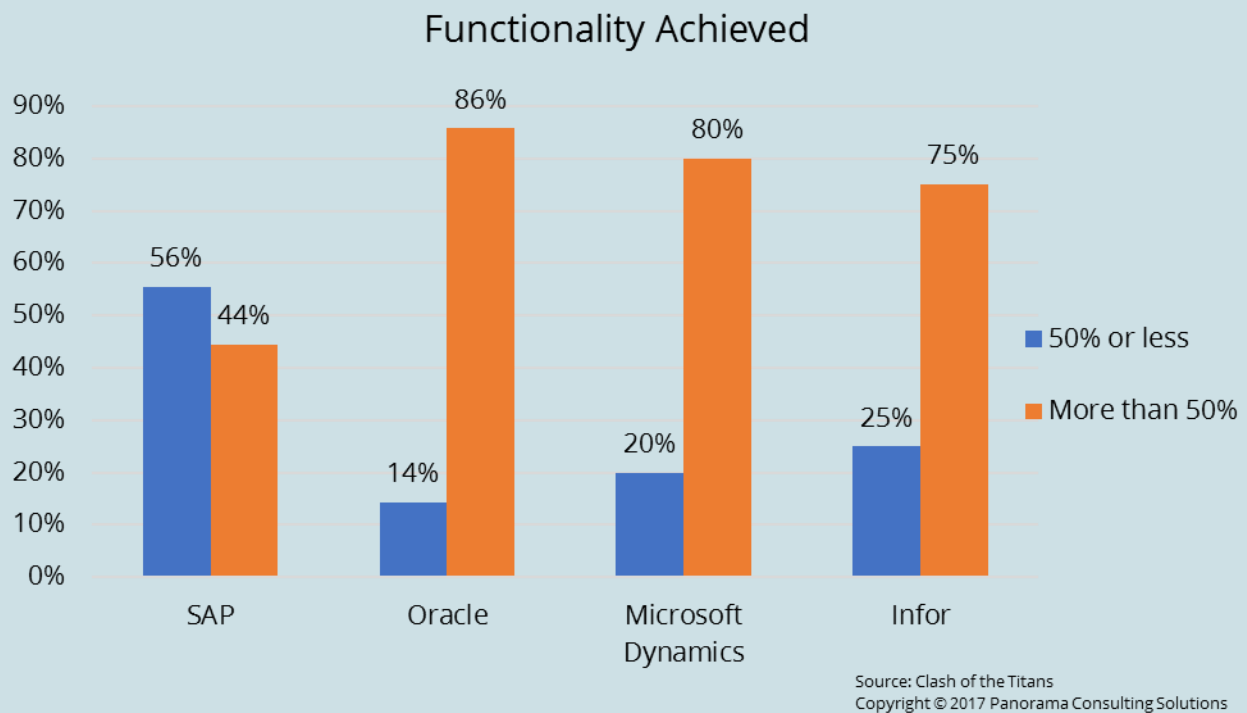
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**Highest Benefits
Realization = SAP**

**Lowest Benefits
Realization = Infor**

Functionality

It is rare for organizations to achieve full functionality of the software modules they implement, especially without investing in organizational change management.



Oracle and Microsoft Dynamics have the most respondents indicating they achieved greater than 50-percent functionality of their enterprise software.

Most Functionality Achieved = Oracle

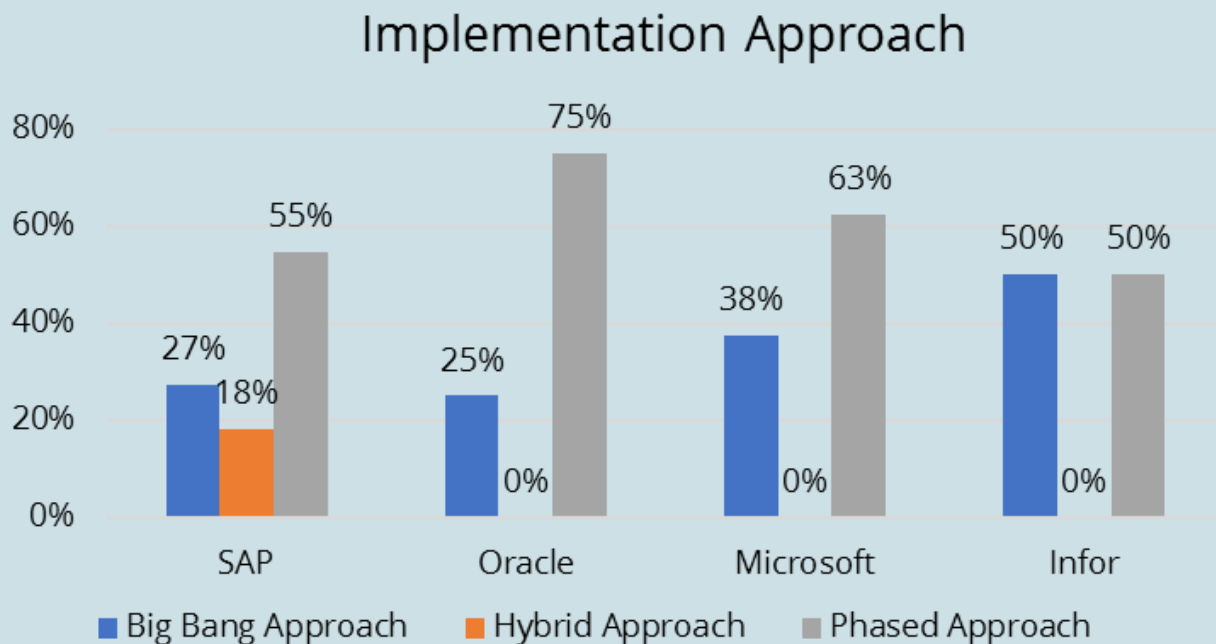
Least Functionality Achieved = SAP

When organizations achieve a low level of functionality, a lack of organizational change management could be to blame.

Implementation Approach

Many risk-averse organizations implement their enterprise software in phases. Other organizations choose a “big bang” approach and implement the entire system at once, regardless of module, location or department. Some organizations use a hybrid approach, which combines these two extremes.

There is no one-size-fits-all approach. Organizations should choose the approach that best suits their level of risk tolerance.



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Highest Use of Big Bang Approach = Infor

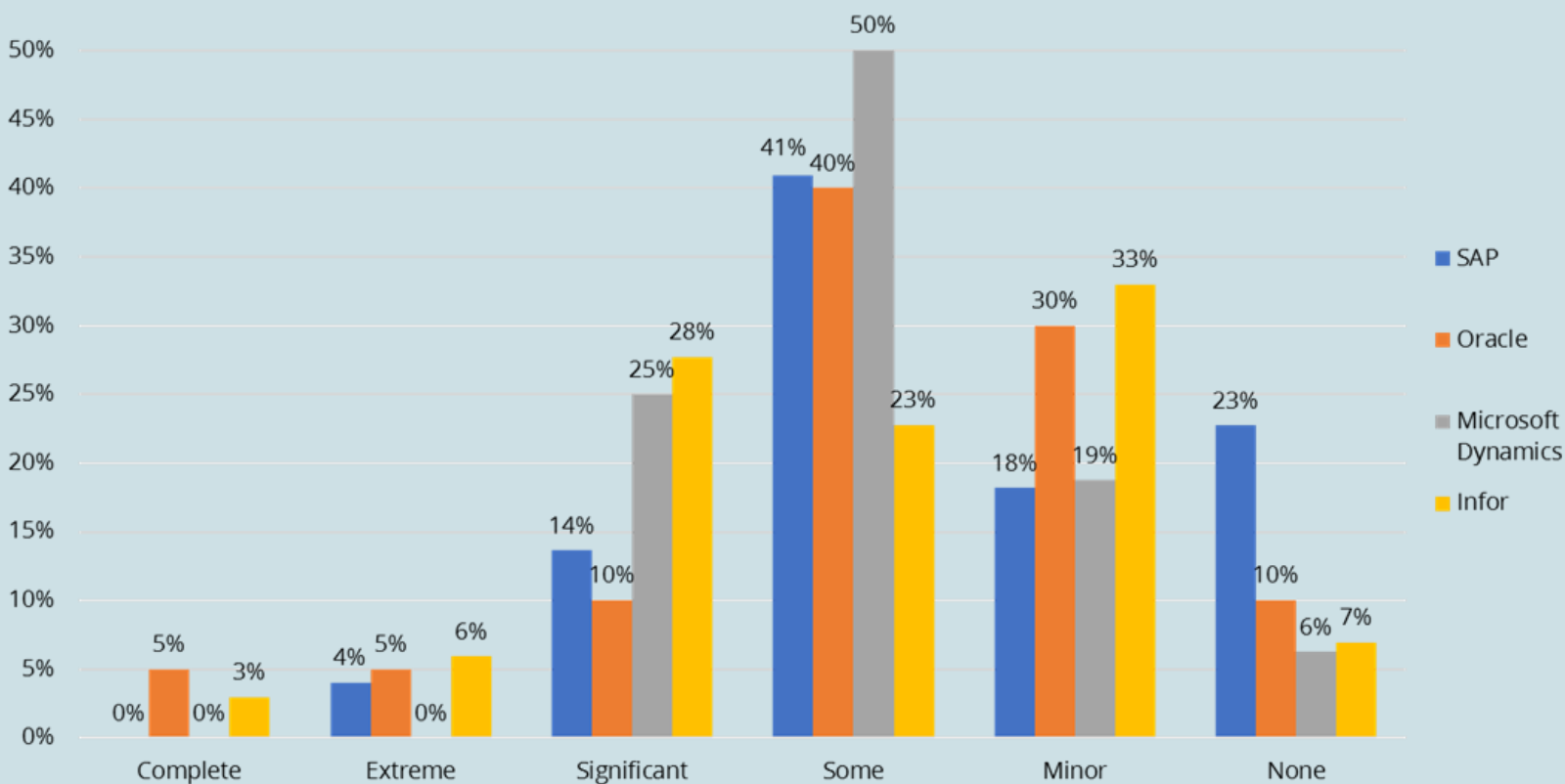
Highest Use of Hybrid Approach = SAP

Highest Use of Phased Approach = Oracle

Customization

The majority of respondents indicated that they customized their enterprise software to some extent. While customization is always necessary, it is ideal to leverage as much out-of-the-box functionality as possible.

Level of Customization



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Most Customization = Infor

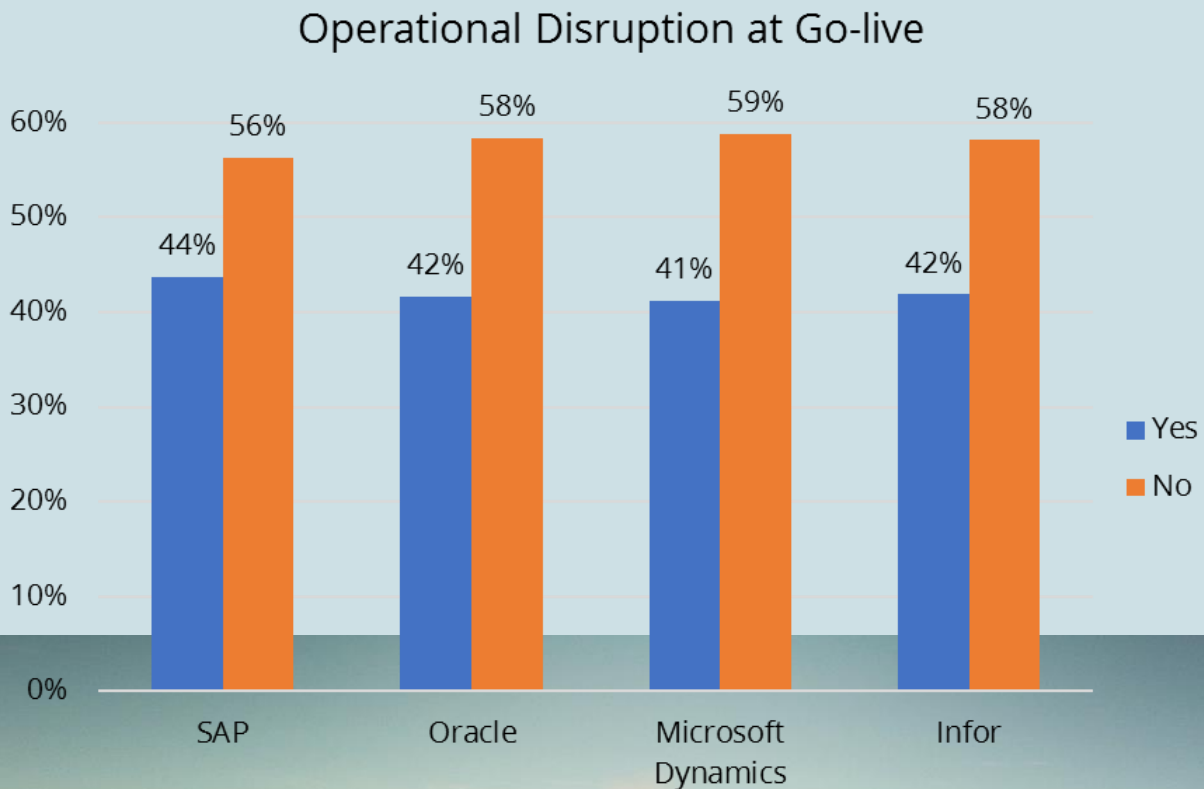
Least Customization = SAP

High levels of customization may indicate that organizations are failing to perform proper due diligence when evaluating systems against their business requirements. This can lead to selection of a system that is not the best fit for the organization. Organizations should document detailed business requirements, including current state processes, to evaluate each system against their business needs.

Operational Disruption

In this report, operational disruption is defined as any material disruption to business processes once an enterprise system goes live - such as inability to ship product or close the books. Unfortunately, operational disruption is quite common, especially among organizations that do not conduct pre-implementation planning or business process mapping.

Regardless of vendor, almost half of organizations experience at least some level of operational disruption at go-live.



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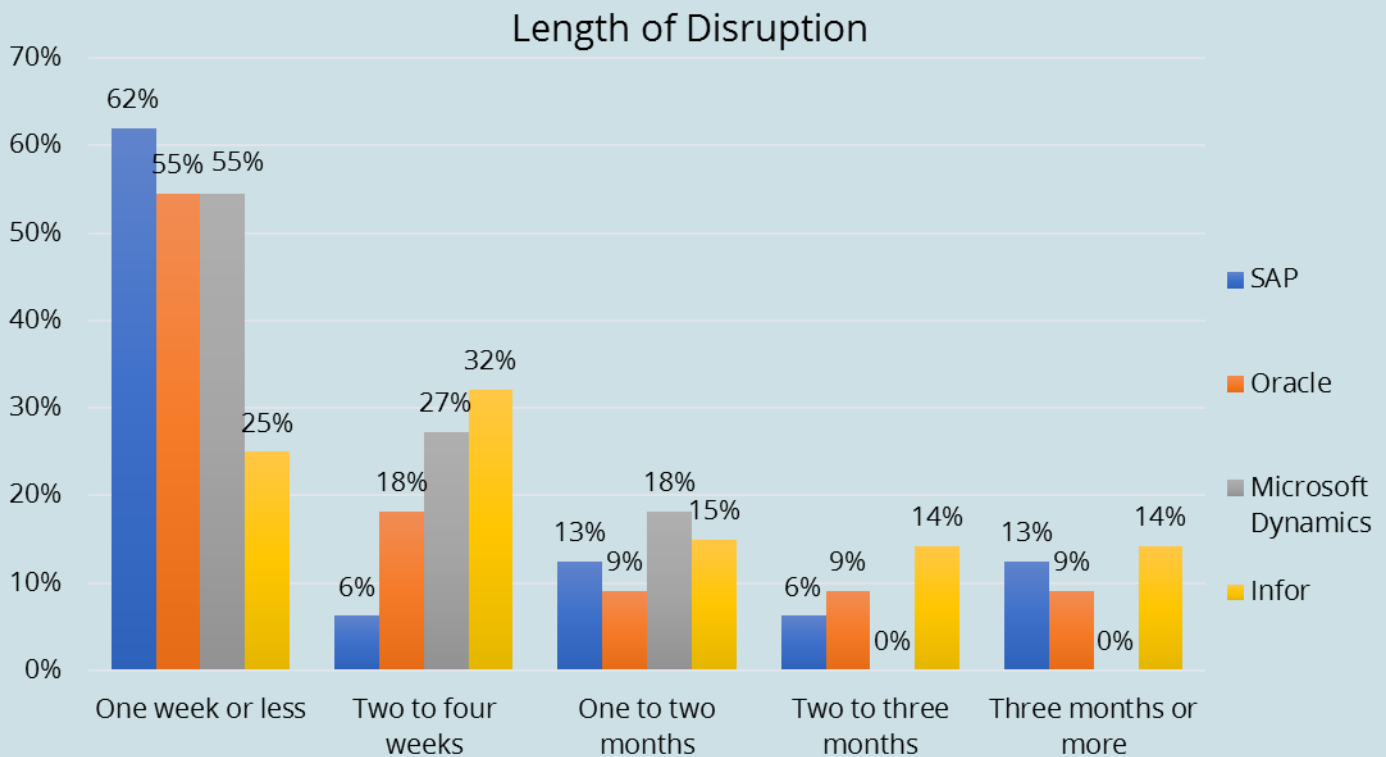
Most Operational Disruptions = SAP

Fewest Operational Disruptions = Microsoft Dynamics

Operational Disruption

Most operational disruptions are due to process and organizational issues within an organization. To mitigate the risk of operational disruption – and decrease the duration of the disruption – organizations should plan for adequate organizational change management.

In terms of the duration of these operational disruptions, most were one week or less.



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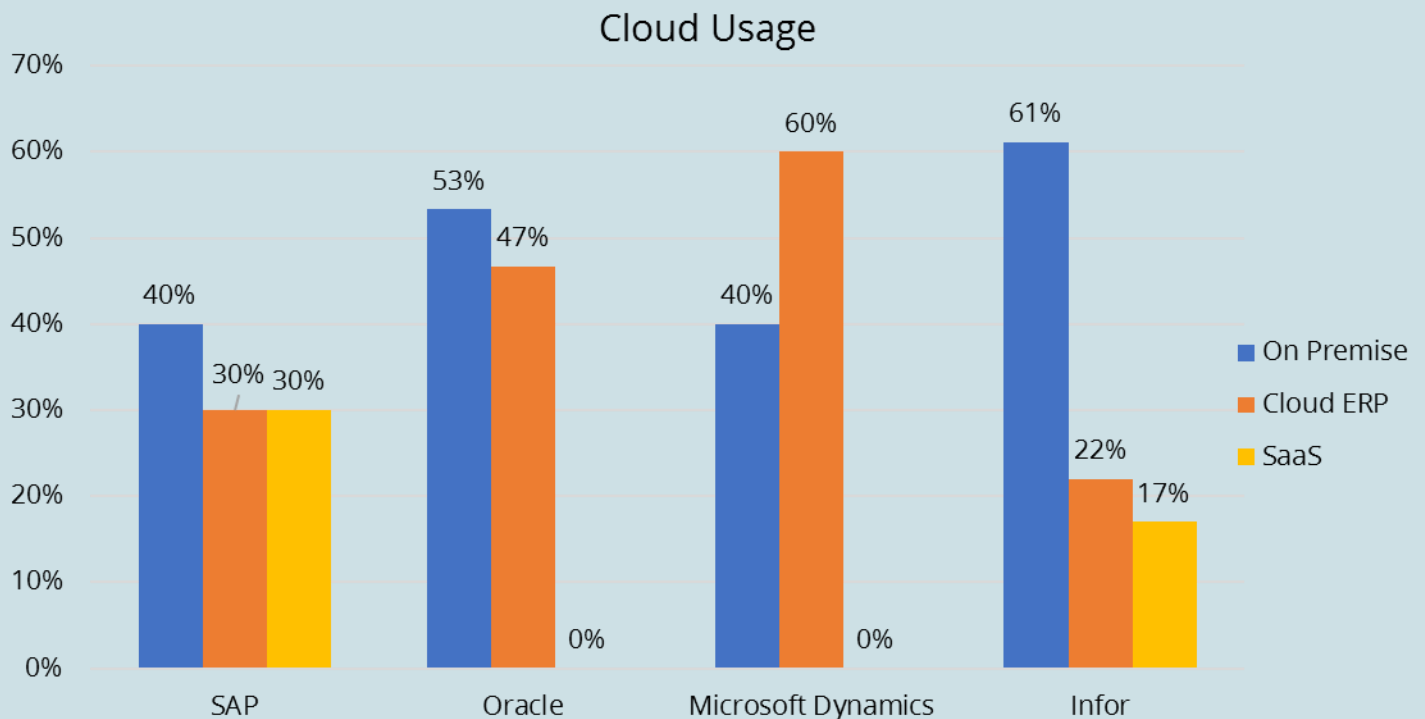
Longest Operational Disruptions = Infor

Shortest Operational Disruptions = Microsoft Dynamics

Cloud Usage

While the cloud is becoming increasingly popular in the enterprise software market, Panorama's research in previous years has shown that a relatively low percentage of SAP, Oracle, Microsoft Dynamics and Infor customers implement their software in the cloud.

Recently, however, more organizations appear to be moving to the cloud - at least among those implementing SAP, Oracle, Microsoft Dynamics or Infor.



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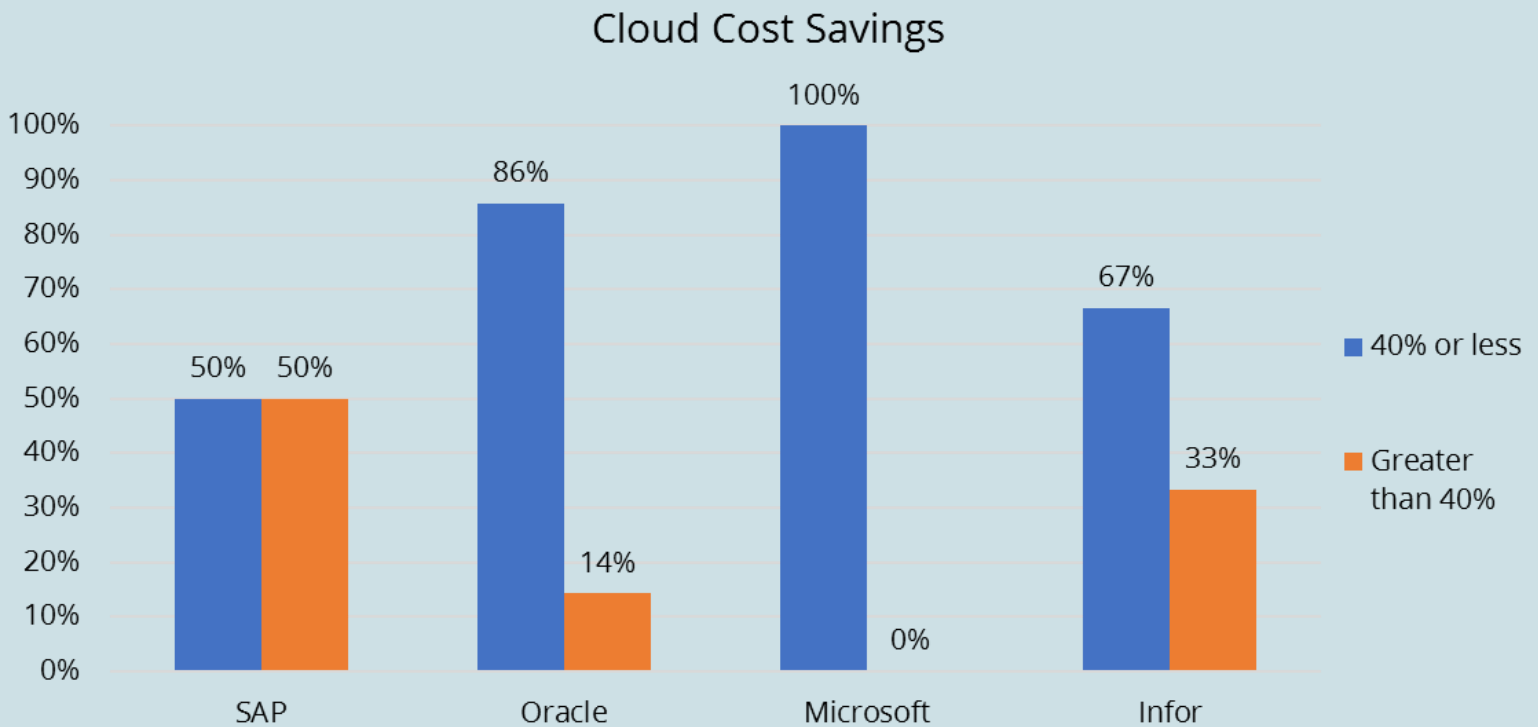
**Most Cloud Usage =
Microsoft Dynamics**

Least Cloud Usage = Infor

Cloud Cost Savings

While the cloud has advantages such as easier implementation, lower upfront costs and lower total cost of ownership, many organizations are finding hidden costs. These are often in the form of integration costs and subscription fees.

Few organizations realize greater than 40-percent cost savings from cloud usage.



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Most Cost Savings = SAP

Least Cost Savings = Microsoft Dynamics

Summary

Vendor	SAP	Oracle	Microsoft Dynamics	Infor
Market Share	19%	13%	16%	13%
Short-list Rate	38%	18%	31%	13%
Selection Rate After Short-listing	38%	22%	22%	19%
Implementation Duration (months)	23.1	24.5	23.6	15.3
Total Cost of Ownership	\$2.09 million	\$2.38 million	\$2.06 million	\$1.51 million
Payback Period (months)	30.0	29.0	12.0	8.5
Realized 50%+ Benefits	34%	21%	26%	10%
Achieved More Than 50% Functionality	44%	86%	80%	75%
Disruption at Go-live	44%	42%	41%	42%
Implemented in the Cloud	30%	47%	60%	22%
Achieved More Than 40% Cost Savings With Cloud	50%	14%	0%	33%

SAP Summary

Highest Market Share

Highest Short-listing and Selection Rates

Least Predictable Implementation Cost

Longest Payback Period

Highest Benefits Realization

Least Functionality Achieved

Highest Use of Hybrid Implementation Approach

Least Customization

Most Operational Disruptions

Highest Cost Savings With Cloud Usage



Oracle Summary

Longest Implementation Duration

Highest Total Cost of Ownership

Most Predictable Implementation Cost

Most Functionality Achieved

Highest Use of Phased Implementation Approach



ORACLE®

Microsoft Dynamics Summary

Least Predictable Implementation Duration

Fewest Operational Disruptions

Shortest Operational Disruptions

Highest Cloud Usage

Lowest Cost Savings With Cloud Usage



**Microsoft
Dynamics™**

Infor Summary

Shortest Implementation Duration

Most Predictable Implementation Duration

Lowest Total Cost of Ownership

Shortest Payback Period

Most Respondents With No Recouped Costs

Lowest Benefits Realization

Highest Use of Big Bang Implementation Approach

Most Customization

Longest Operational Disruptions

Lowest Cloud Usage

The Infor logo consists of the word "infor" in a white, lowercase, sans-serif font, centered within a solid red square. The background of the slide features a grayscale image of a volcanic eruption with thick plumes of ash and smoke rising into the sky.

infor

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Conclusion

Before evaluating potential enterprise systems, be sure to define your current and future state business processes. This will provide a good vantage point from which you can assess the strengths and weaknesses of various strategic options.

While every organization has different business needs and requirements, this study can be the starting point for your own ERP evaluation and selection. Your organization's unique business processes and priorities will ultimately determine your IT and enterprise strategy.

About Panorama Consulting Solutions

Panorama Consulting Solutions specializes in the enterprise consulting, enterprise resource planning (ERP) and IT market for mid- to large-sized, private and public sector organizations across the globe. One-hundred percent independent of affiliation, Panorama helps firms evaluate and select ERP software, manages the implementation of the software and facilitates all related organizational changes to ensure that each of its clients realize the full benefits of their ERP implementation.

We also offer our clients IT strategy, business process reengineering, ERP staffing, sales assessments, energy fueling assessments, emergency/disaster fund management, independent verification and validation, project management oversight and expert witness testimony.

Panorama maintains a global presence with current offices in Denver, Chicago, Boston, San Francisco, Lima, Dubai, Houston and New York.

More information can be found on its website, Panorama-Consulting.com and Twitter feed, [Twitter.com/PanoramaERP](https://twitter.com/PanoramaERP).

