

ERP Systems Market Primer

Focus Research
ERP Group
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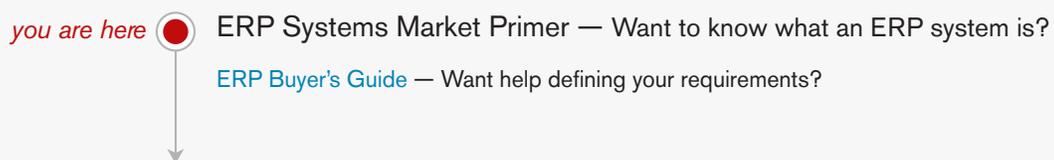
Introduction

The use and application of ERP (Enterprise Resource Planning) has a much broader scope in today's world than just planning and managing enterprise resources. Though most companies know about the benefits of ERP, a majority lack awareness about the how to evaluate products or when the time is right to upgrade or make a change. Moreover, they may not be up to date with the latest ERP features, market trends and other essential information. Focus's ERP System Market Primer offers necessary background knowledge on ERP to potential buyers and sales executives. The report is an introduction to our Buyer's Guide, a resource that assists prospective buyers in the purchase process.

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Our ERP Systems Market Primer is one of several research reports based on the Focus Research Methodology, which is designed to support your entire ERP purchase process.



1

ERP Basics

An ERP system is an integrated information management system that manages the flow of data among different functional divisions within an enterprise. It generally includes a common enterprise-wide database and various application modules to support routine business activities, such as planning, manufacturing, sales, marketing, distribution, accounting, finance, human resources, project management and inventory management. An ERP system is used to standardize processes and store information – and recall this data when it's needed – in a real-time environment.

ERP solutions have several modules. Some of the most common are modules for:

- Financial Management
- HCM (Human Capital Management)
- Manufacturing Management
- Project Management
- SCM (Supply Chain Management)
- CRM (Customer Relationship Management)
- SRM (Supplier Relationship Management)
- PLM (Product Lifecycle Management)

Why Businesses Buy

The initial decision to implement an ERP solution is always driven by an organization's business process inefficiencies. Along with delivering the obvious benefits of business process automation, better information accessibility and improved operational efficiencies, ERP implementation can overhaul the way an organization executes its daily processes. Companies consider buying ERP solutions when they face numerous interrelated and complex business problems; many expect to gain an assortment of business benefits from implementation, including:

- Meeting the organization's financial objectives through productivity gains and efficiency resulting from the automation of business processes
- Streamlining and managing the large-scale operational processes of the organization, which may have grown in complexity as a result of recent major organic growth or acquisitions in the recent past, and acquiring multi-office, multi-geography, and/or multi-currency support
- Upgrading or replacing an existing ERP system that is obsolete or incapable of supporting the organization's daily processes
- Achieving the benefits of better data management through the improved accessibility of information, minimized duplication of data and better forecasting capabilities.

Prime Yourself: 10 Things to Know About ERP Systems

1. **No exact fit:** Understand that no ERP package offers functionalities that can exactly meet all the business requirements of an organization. Some level of configuration and customization of the ERP package as well as of the organization's business processes is always required during ERP implementation.
2. **Suite vs. Modules:** An organization can implement the complete ERP suite or select modules as per its requirements. Each module can be implemented alone or in combination with other modules.

10 Things to Know about SFA

1. No ERP package is an exact fit.
 2. You can buy a full suite or individual modules.
 3. The key is to pick only the modules you need.
 4. Add-on features drive product differentiation.
 5. On demand is a growing alternative to on premise.
 6. Licensed-based pricing is the most prevalent model.
 7. ROI for ERP is a different beast.
 8. Try to configure before customizing.
 9. Implementation is the most difficult and crucial phase.
 10. There are a number of hidden costs to watch out for.
3. **You must mix and match modules:** A wide variety of ERP modules and features are included in different ERP packages. ERP modules can be broadly classified into three categories: cross-industry, sector-specific, and extended ERP modules.
 4. **Add-on functionalities/features drive ERP:** Due to the commoditization of core ERP functionalities (such as financial accounting), add-on functionalities, industry-specific applications, and enhancements are becoming more important and are the real drivers of the ERP market these days.
 5. **Alternatives to On-Premise Exist:** The traditional on-premise ERP implementation has been joined by on-demand/SaaS ERP and open source ERP as viable ERP options. SaaS ERP applications, especially pertaining to CRM and HCM, have started gaining traction; however, open source ERP solutions have yet to truly carve out a place in the market.
 6. **Pricing models:** Licensed-based pricing, with software costs paid upfront, is the most common pricing model for ERP systems. Various options available within this model include package-based pricing, user-based (named user and concurrent user) pricing, module-based pricing, and/or location-based pricing. Another pricing model—subscription-based pricing—is usually used for on-demand ERP solutions. In this model, service costs are paid on a monthly or a periodic basis.

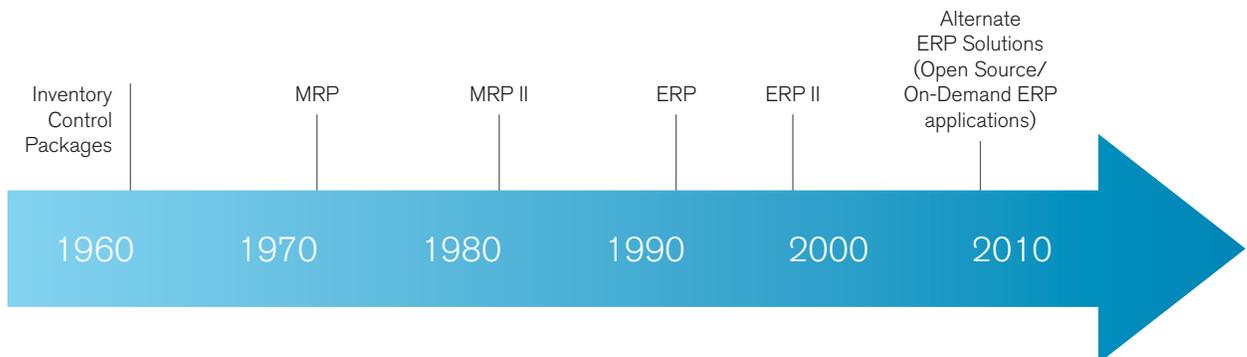
- 7. ROI expectations:** It is rare when Return on Investment (ROI) from ERP is seen immediately. In case of ERP, ROI is realized from process improvements and not just from ERP applications. Business process realignment in any organization depends on factors such as number of stakeholders involved, user acceptance of the proposed change, and complexity of the process, and these usually take time to become effective.
- 8. Configuration or customization:** During configuration, an ERP system is set up to make it work the way you want to the extent the system allows. Beyond that, the organization must customize or modify the source code or developing software to meet its requirements. Configuration of an ERP system should always be pursued before customization. Customization should always be the last resort, as it can cause the system to become complex, difficult to maintain, difficult to integrate with other systems, and nonviable for vendor support.
- 9. Implementation:** The implementation of an ERP system is the most crucial and difficult task in the whole process. Poor implementation, faulty data migration/conversion and lack of post implementation support will cause even feature-rich software work poorly. However, a thorough implementation and good post-implementation support can make ERP software a good fit.
- 10. Cost components:** In addition to standard license fees and implementation services fees, there are other small unforeseen cost components that can get out of hand and can take customers by surprise. These costs include high and recurring training costs, huge unexpected customization costs, data conversion/migration costs, replacement costs of key ERP team members, and the cost of maintaining parallel systems.

2 Market Summary

The evolution of ERP systems closely followed the significant developments in the field of computer hardware and software. During 1960s, manufacturing systems focused on inventory control. Consequently, inventory control packages were designed, customized and implemented to automate inventory control based on traditional inventory concepts. Material Requirements Planning (MRP) systems were developed in the 1970s and mainly involved planning the product or parts requirements according to Bills of Materials (BoM) and Master Production Schedules (MPS). The decade of the 1980s witnessed the evolution of the concept of Manufacturing Resource Planning (MRP II), which was an extension of MRP with emphasis on optimizing manufacturing processes by synchronizing materials delivery with production requirements. MRP II included areas, such as shop floor, distribution management, finance, human resource and project management.

The diagram below summarizes the evolution of ERP systems.

ERP Evolution Highlights



Source: Focus Research analysis

Market Evolution

ERP evolved from the concept of MRP and MRP II systems starting in the late 1980s. The term ERP was coined at the beginning of 1990s by the Gartner Group. Built on the technological foundations of MRP and MRP II, ERP systems emerged with the ability to integrate enterprise-wide inter-functional business processes, providing real-time accessibility, visibility and consistency across the organization.

During the late 1990s, ERP vendors started adding more modules and functions as “add-ons” to cater to business processes such as financial transactions, giving birth to the concept of “ERP II.” The evolution of extended ERP reflected the fact that many non-manufacturing sectors started adopting ERP systems for financial, accounting and other business processes. The ERP extensions include SCM, CRM, advanced planning and scheduling (APS), and e-business functionalities.

Market Trends

The Story So Far

- 1. Dominance of top vendors:** The ERP software market has always been highly consolidated. In the late 1990s, it was dominated by SAP, Oracle, PeopleSoft, JD Edwards, and Baan, which accounted for more than 50 percent of the total global ERP market. Currently, Oracle and SAP control over half the market. However, other vendors, such as Agresso, Epicor Software, Infor, Lawson Software, Microsoft and Sage Group are performing well by exercising a variety of approaches to achieve differentiation.
- 2. Industry-specific ERP offerings are key differentiators for vendors in the market:** The ERP market has matured to such a level that most of the basic business activities pertaining to organizational functions, such as human resource and finance, are successfully supported by most of the ERP packages in the market. Consequently, vendors have started differentiating themselves on the basis of industry-specific business functionalities supported by their ERP products.
- 3. Shift in focus from large enterprises to small- and mid-size businesses:** The complexity of ERP systems, associated high costs, and problems related to their implementation are driving organizations to reevaluate their plans for acquiring and implementing enterprise-wide systems. Since the ERP market is growing slowly due to saturation among large enterprises, ERP vendors are shifting focus from large corporations to small- and mid-size businesses.

The Road Ahead

- 1. Industry-specific ERP functionalities will continue to drive success in the ERP market:** According to Forrester's latest ERP study, "ERP Applications 2008: Battle Goes Vertical," the ERP software market, which is currently about US\$38 billion in size, is growing at an annual rate of 6.9 percent and is expected to reach US\$50 billion by 2012. With the introduction of new regulations, compliance requirements and issues in different industries, users will require new ERP functionalities to address these requirements as well.
- 2. Increasing emphasis on user interface:** A significant product differentiation is expected in this area. Rich Internet Applications (RIA) will transform the Web-based user interfaces of back-end enterprise applications.
- 3. Alternative ERP models to gain traction in the market:** The SaaS or on-demand ERP model will strengthen its position as a mainstream ERP solution model among buyers.

Vendor Landscape

With the ever-growing importance of industry-specific applications, vendors offering specialized and vertical-specific ERP solutions remain competitive. We have categorized ERP software vendors into the following five broad categories:

- **Vendors serving large businesses:** There are two “tier-one” vendors—Oracle and SAP—that provide ERP software for multi-facility, multi-language, billion-dollar enterprises. The products they offer are well equipped to support the global operations of large enterprises through multi-location, multi-currency and compliance features.
- **Vendors serving medium-size businesses:** A majority of ERP vendors serve mid-sized businesses (100–999 users). Therefore, there is an intense competition in this segment of the market. The product offerings of ERP majors, such as SAP, Oracle and software giant Microsoft, and midmarket-focused vendors, such as Infor, Lawson, Deltek, Epicor, IFS, QAD, Sage Software, and Exact Software, are estimated to have generated approximately \$2.2 billion in 2007 in North America (Gartner 2008 study). Also, vendors providing on-demand/SaaS ERP solutions register a strong presence in this segment. Intacct, Netsuite, Workday, and SAP (Business ByDesign solution) are some of the major SaaS ERP vendors.
- **Vendors serving small businesses:** Though ERP adoption by small businesses (20–99 users) is in the nascent stage, ERP vendors are eyeing this segment with great anticipation. According to a 2008 Gartner study, the North American small-business ERP suite software market is estimated to have generated \$327 million in 2007 and is expected to grow at a CAGR of 11.3 percent through 2012. Microsoft, Sage Software, Infor, Exact Software, and Epicor are the front runners in this segment. SaaS ERP vendors offering low-cost standard ERP applications attract a large segment of small businesses and are well positioned to be key players in this segment.
- **Vendors serving specific vertical industries:** Vendors are offering ERP solutions for industry verticals ranging from generic sectors like manufacturing, retail and professional services to more specialized sectors such as defense, fashion, and non-profit. There are two classes of vendors in this segment. The first class of vendors includes large ERP majors, such as Microsoft, SAP, Oracle and Lawson that offer ERP solutions for most of the verticals. The second class of vendors focuses on specific sectors/target area. For example, QAD, Infor and Sage Software focus on the manufacturing sector; Deltek on the services sector; IFS on the retail sector; and Epicor on multi-national firms.
- **Vendors providing open source ERP solutions:** Though traditional licensed ERP systems account for a majority of the ERP market, the scope of open source ERP has increased, and the trend is expected to continue in the future. Currently, a number of open source ERP projects exist. However, only a few of them, such as Compiere, Open For Business (OFBiz), Adempiere, and Openbravo, have gained traction and have grown to a considerable level of functionality. Compiere, Apache (OFBiz), and xTuple (OpenMFG) are the key players in the open source ERP space.

For detailed list of vendors and their products, please refer to the Vendor Landscape section at the end of the primer.

Before defining requirements and beginning the purchasing process, prospective purchasers need to familiarize themselves with product features, functionalities, modules, etc. A purchaser should be aware of different solution models available in the market and the pros and cons of each one of them.

3 Product Overview

ERP Systems, Modules and Features

The concept of ERP has evolved from the MRP and MRP II systems. Thus, the initial focus of ERP systems was primarily on the management of companies' manufacturing, inventory and supply chain processes. However, the need for unifying, coordinating and standardizing the functional units of an organization required ERP systems to encompass other functionalities. Traditionally, ERP concentrated on the following processes:

- **Finance:** Including all the traditional business processes pertaining to financial transactions, such as accounts receivable, accounts payable and general ledger.
- **HR (Human Resources):** Involving all the people-related business processes, such as payroll, and time and labor tracking.
- **Operations:** Involving all the operational processes associated with the movement and storage of goods, services and related information from their points of origin to their points of consumption across the supply chain, such as procurement, manufacturing, sales and transport.

With the widespread adoption of ERP systems, organizations demanded more functionality for areas associated with the core functionalities of an enterprise. This led to the evolution of extended ERP functionalities to manage business processes pertaining to customers, vendors and other peripheral but important stakeholders of the enterprise. Additionally, the evolution of industry-specific functionalities made ERP more useful for different industries. Many vendors introduced specific functionalities to their ERP systems to help companies comply with government regulations and follow industry best practices. For example, the adoption of FDA requirements for the pharmaceutical industry was built into the system.

ERP Modules

An ERP system is an integrated suite of modules supporting core business processes. ERP modules are software packages that perform a set of functions to support a set of business processes. By and large, customers prefer to select ERP modules to complete their ERP suite to precisely meet their needs and budgets. Consequently, various ERP vendors offer their ERP solutions on a modular basis, so that the modules can be deployed individually and can be easily integrated when more ERP modules are phased in.

ERP solutions are implemented to automate and streamline core business processes and support an organization's functions. Though support functions such as human resources, corporate finance, IT and infrastructure management are unlikely to vary across sectors, many core business functions or operations largely depend on the organization's industry segment. Consequently, ERP modules are broadly classified as cross-industry, industry-specific, and extended ERP modules.

Cross-industry ERP Modules

These modules help manage the business processes of organizations as well as support functions such as human resources and finance. They are unlikely to vary much across industry verticals, and hence are the only common denominator among ERP solutions for all kind of industries and companies. Cross-industry ERP modules comprise the following:

- Human Capital Management (HCM): The ERP HCM module manages and automates HR activities that have been developed around the HR functionalities of payroll management, time and labor management and human resources management.
- Financial Management: The Finance module deals with accounting and financial transactions. It helps businesses prepare financial reports and maintain books of account electronically. Most of the finance modules perform the following set of functions:
 - General Ledger
 - Accounts Receivable
 - Accounts Payable
 - Time and Billing
 - Cash Management
 - Expense Management
 - Compliance Management

Sector-specific ERP Modules

These modules cater to the core operations of an organization. Almost every vendor tends to package its ERP offering with industry-specific functionalities tailored to the needs of that particular industry segment and based on the vendor's area of expertise. Therefore, major product differentiation occurs in these industry-specific ERP modules. For instance, Manufacturing and Project Management are two common ERP modules that may vary dramatically depending on the target vertical industry of a particular ERP solution.

Extended ERP Modules

New ERP modules have emerged as organizational processes have evolved. These modules were perceived as an extension of core ERP functionalities, and have evolved as a part of the broader enterprise world. Currently, most of these modules are packaged with core modules in ERP suites, but they may also be offered as stand-alone business applications. These modules mainly include SCM, CRM, SRM and PLM.

For more details on these ERP modules, refer to the Glossary Section of the Primer.

ERP Features across Modules

Each ERP system is supported by a standard set of ERP features that are part of an ERP package. These features support all the modules of the ERP package. ERP features such as ERP system administration and integration, ensure a hassle-free execution of all business functionalities that an ERP package supports. Other features, such as analytics & reporting, consolidation and compliance equip an ERP system to address business requirements more effectively. The configuration and customization features allow an organization to modify the way the original ERP package functions.

For more details on these ERP features, refer to the Glossary Section of the Primer.

What is an ERP System?

An ERP system is an integrated information management system that manages the flow of information among different functional modules in an enterprise.

The following are the most common ERP modules:

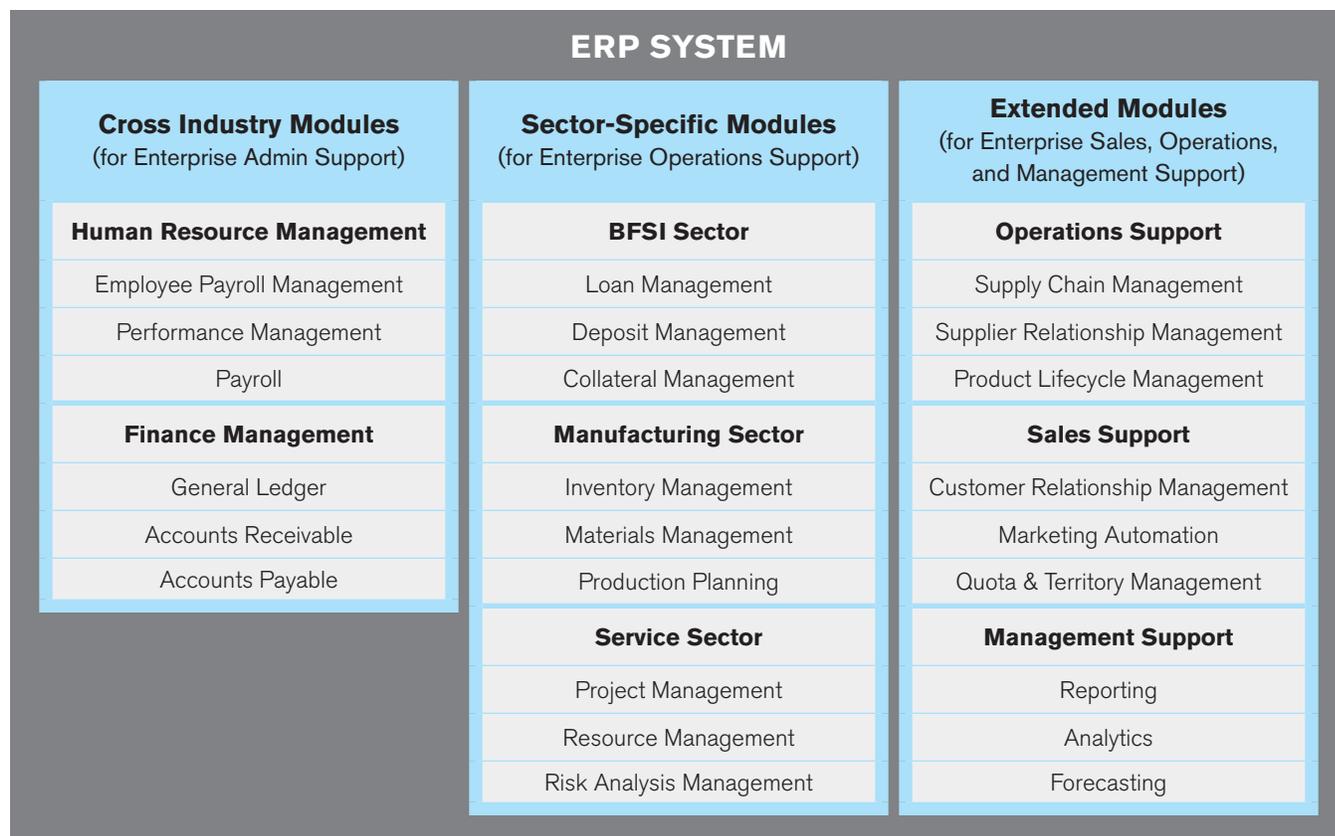
- Financial Management
- Human Capital Management
- Manufacturing Management
- Project Management
- Supply Chain Management
- Customer Relationship Management
- Supplier Relationship Management
- Product Lifecycle Management

Other Product Considerations

Beyond functionality, organizations also need to determine the type of solution model required. Depending on its internal resources, size and budget, it can opt for an on-premise solution, an on-demand solution or an open source solution.

Currently, a small but growing number of vendors is offering alternative ERP solutions to provide greater flexibility and more options in the ERP market, which is still being ruled by traditional license-based on-premise ERP solutions. A majority of companies know that the implementation of an on-premise ERP system is an expensive, tedious and time-consuming process. Moreover, the current grim and turbulent economic scenario is likely to further push them to consider alternative ERP solutions that can meet their requirements at lower costs.

Break-up of ERP System across Different Families of ERP Modules



On-Demand ERP Solutions

SaaS or on-demand ERP applications are hosted by a third party, and users can access these applications through the Web. The advantages are faster implementation, regular upgrades and cheaper startup costs. Small- and mid-market businesses, startups, government bodies and academic institutions comprise the majority of the early adopters of these alternative solutions. However, these solutions are also gaining attention from large enterprises who want to break free from historically expensive ERP solutions.

Open Source ERP Solutions

Open source ERP solutions provide an alternative to on-premise ERP, allowing companies to download the solution and customize it to suit their business processes. This solution allows them to save on license fees and reduce the initial cost of the solution. However, maintenance, support and customization costs are higher for open source solutions than they are for a licensed ERP solution; this increases the total cost of ownership of the open source ERP solution considerably.

4 Tools

To try to help you simplify a complex subject, we've included a set of tools that can explain the jargon used in ERP systems, show the vendors currently offering ERP products, and help you evaluate whether your company is ready for an ERP solution.

7 Signs That Your Company Is Ready for an ERP Solution

Glossary of Key Terms

Vendor Landscape

7 Signs That Your Company Is Ready for an ERP Solution

Because of the benefits that ERP can bring, and the long period during which those benefits may manifest themselves, ERP implementation is always a strategic investment for an organization. Increased productivity, reduced operating expenses, improved information flow and enhanced performance management are some of the benefits that an organization can realize by implementing an appropriate ERP solution. On the other hand, huge unanticipated costs, enormous opportunity costs due to extended project timelines, and minimal ROI are some of the tribulations that an organization can get into without informed selection and well-planned implementation. Thus, the first and foremost thing is to identify whether your organization needs an ERP solution at all. We have listed below some of the business conditions that can help you make the decision. If an organization is experiencing one or more of the following business conditions, it is time to seriously consider implementing an ERP solution or replacing the current one:

- 1. Fast and uncontrolled growth:** Is your organization growing at a very fast pace? Your organization has recently opened multiple operational units/offices in multiple locations. There is significant increase in volumes of production, processes, and work force.
- 2. Lack of sufficient and accurate information on your company's performance:** You are facing problems in capturing exact figures or are receiving mismatched data on your company's performance indicators.
- 3. Consistent mismatch between inventories and production management:** There is a lack of coordination between sales order processing and inventory management in your organization.
- 4. Duplication of effort:** The finance and HR departments store and maintain employee details separately. Similar other instances of duplication exist in your company.
- 5. The right information is not accessible at the right time:** You are not able to access accurate data on stock in inventory, month-end sales figures, orders in transit and other required information on time.
- 6. Little or no ability to forecast and plan:** Your organization's strategic and planning division is not equipped to forecast and often relies on conventional methods for future projections.
- 7. Your current system is becoming obsolete:** The existing enterprise system in your organization is no longer efficiently supporting your day-to-day processes and is negatively impacting the organization's growth.

Glossary

Accounts Receivable: Accounting transactions dealing with the billing of customers who owe money to an organization for goods and services. In ERP, the accounts receivable module helps companies track and manage received payments, outstanding payments (receivables), payment due dates, etc.

Accounts Payable: Accounting transactions dealing with money that an organization owes to suppliers but has yet to pay. In ERP, the accounts payable module helps companies track and manage bills, payments and money owed by the company (payables).

Analytics and Reporting Feature: An ERP suite's analytics allow users to share and analyze the data that ERP applications collect from an enterprise-wide unified repository. The feature provides companies with a highly customizable, scalable, flexible and integrated reporting and analysis capability. The end result would be more informed decision making by everyone from executives and line managers to human resources professionals and accountants.

Benefit Administration Management: A tool for tracking and managing employee benefits programs, such as insurance policies, pension plans, tax saving investments and stock option plans.

Bill of Material (BoM): A list of all the items that make up a product or assembly. The list states the name, quantity and unit of measurement for each component.

Capacity Requirements Planning (CRP): A process that uses demand from production orders, production line rates, and capacity data to determine over- or under-capacity conditions.

Cash Management: In ERP, a module that automates processing, execution and tracking of all the transactions that impact the available cash levels.

Compliance Management: In ERP, this provides rules-based controls to help companies comply with Sarbanes-Oxley, BASEL II, and other regulatory guidelines.

Configuration Features: Configuring an ERP system enables a company to modify the system to work the way that company wants, to the extent the system allows. The system can be adjusted using configuration tables to achieve the best possible fit with the company's processes.

Consolidation (multi-company, -country, and -currency): In ERP, these features help an organization with multiple business units, subsidiaries, or franchises in the real-time consolidation of enterprise data across an organization by geography, currency or operation.

Customer Relationship Management: The technology and processes involved in acquiring and keeping customers by building relationships with them. CRM systems generally have a number of components that take care of the following customer-related business functionalities:

- Sales: Sales Force Automation, Sales Planning and Forecasting, Sales Performance Management, Quotation and Order Management, Opportunity Management, Territory Management, Pricing and Contracts, Incentive and Commission Management
- Marketing: Marketing Resource Management, Campaign Management, Lead Management, Segmentation Management
- Customer Service: Contact Center Management, Service Order Management, Warranty Management, Complaints and Returns

Customization: Customization of an ERP system includes any modification or extension that changes the functionality or the manner of operation of the original ERP system. There are two basic types of customization:

- Core system customization: Modifications to the source code of the proprietary ERP software to meet the customer needs. It is usually not preferred as the ERP software vendor will not be able to support the customized code and other ERP modules. Also, future upgrades and patches might not integrate well with the customized code. Such customization is usually maintained by an in-house IT team or outsourced to a software services firm. Core system customization should be used only to address critical complex business needs.
- Custom extensions: Bolt-on applications developed for the ERP system to enhance its functionality. It does not involve modifying the source code, but instead involves building a third-party or an in-house software application on top of an existing ERP application. Though the ERP application will still be supported by the vendor, the custom application needs to be supported by the in-house IT team or a third-party software services firm.

ERP System Administration: This provides an organization with fully secure log-in and password management, security at different levels (module level, form level, operation level), and ERP administration for managing user roles and privileges and audit trails for modification, deletion, viewing and printing. The following tasks are usually performed by an ERP system administrator:

- User role/rights definition
- Audit trail configuration
- Work flow management
- Database management
- Data back-up configuration

Expense Management: In ERP, it automates the entire expense reporting process—from the expense entry to the expense reimbursement.

General Ledger: In ERP, this captures all accounting transactions and presents the information in the form of financial statements.

HR Management: In ERP, this captures and manages all HR information about an employee from job application to retirement. It also takes care of employee training and development, skill management, and other related activities.

Integration features: Features which enable the integration of ERP with other systems.

Manufacturing Modules: Applications intended to make manufacturing operations more efficient and more simple. Most vendors support different modes of manufacturing, perform different types of job costing, and offer a BOM tool. Applications often include PDM, CRP, MRP, forecasting, MPS, work order management and shop floor control.

Manufacturing Resource Planning (MRP II): A method used for effectively planning all resources of a manufacturing company. It is made up of a variety of functions—business planning, sales and operations planning, production planning, MPS, MRP, CRP, and the execution support systems for capacity and material linked together. The MRP II is a direct outgrowth and extension of closed-loop MRP.

Master Production Schedule (MPS): A detailed manufacturing plan that involves all tasks that have an influence on a company's production flow - from arranging for construction drawings through the purchasing, manufacturing and tool procurement functions, to the delivery of finished products.

Material Requirements Planning (MRP): MRP is a scheduling procedure for the production processes of a manufacturing company. It is a technique that assists a company in the detailed planning of its production.

Open Source: Of or relating to a product/software that is licensed to permit modifications in and redistribution of its source code.

Payroll Management: In ERP it helps process employees' salaries based on time, attendance and other data, calculation of taxes, and generation of periodic pay checks, and tax reports.

Product Data Management (PDM): In ERP, it is used during product design to store and retrieve data to ensure information consistency throughout the life cycle of a product. It typically handles information, such as geometric models, CAD drawings, and images, as well as documents and engineering BoM, and supports approval processes and engineering change management.

Product Lifecycle Management (PLM): An ERP module that controls critical product information that must be shared with other enterprise systems, such as ERP, CRM, and SCM. PLM systems need to leverage information managed in other enterprise systems. This bi-directional connection between PLM and other systems is critical to enable a seamless flow of information among different functional groups involved in product development, particularly engineering and manufacturing.

Project Management: An ERP module most widely used by service-sector companies where a majority of operations are carried out in the form of projects. ERP Project Management systems enable project managers to effectively manage their projects with less effort. They provide managers with control and visibility throughout the project life cycle, including project planning, budgeting, forecasting costs and revenues, managing issues and change requests, tracking project status, and project performance. This module also has a central repository that maintains and categorizes all the project-related files and documents and allows them to be accessed in a timely fashion.

Sarbanes-Oxley: A U.S. law intended to reinforce top management responsibilities in terms of internal audit and information circulation, including public information. It emphasizes data protection and information flow control. It requires stricter rules in computer and data security.

Shop Floor Control: Methods and systems used to prioritize, track and report against production orders and schedules. It includes the procedures used to evaluate current resource status, and update labor, machine hour and other associated information required to support planning, scheduling and costing systems.

Software as a Service (SaaS): A software delivery model in which a software firm provides daily technical operation, maintenance and support for an application provided to its clients. The application runs on the vendor's servers and customers use it via Web browsers.

Supplier Relationship Management (SRM): A tool for strategic planning and central management of a company's relationships with its suppliers. The aim is to closely bind all suppliers to the company and support purchasing throughout the procurement processes. SRM systems help companies realize sustainable savings by centralizing and streamlining a number of business processes, including procure-to-pay, catalog management, centralized sourcing, contract management and supplier evaluation.

Supply Chain Management (SCM): Of all the ERP modules, SCM has the greatest variability among vendors. It is vast and varied, yet can often adapt to the needs of specific industries. According to Lawson Software, SCM improves the flow of materials through an organization's supply chain by "managing planning, scheduling, and procurement; fulfilling optimum service levels; and achieving maximum profitability." A few vendors segment their SCM into smaller modules. Oracle's JD Edwards, for instance, breaks it down into Supply Chain Planning, Supply Chain Execution (Logistics), and Supply Management (Procurement). SCM features also tend to include production scheduling, demand management, distribution management, inventory management, warehouse management, procurement, and order management.

Time and Billing: In ERP, the tracking and correlation of time spent on a particular customer and the hourly rate charged that customer. This functionality is useful for companies where time and expenses are tracked in detail and billed to specific customers, such as legal, engineering or accounting firm.

Time and Labor Management: In ERP, it collects, tracks and evaluates employee time/work information.

Vendor Landscape

This section summarizes the vendors serving the needs of all size of businesses—small, medium, and large. You will notice the presence of some common vendors across the categories, because they offer ERP solutions for all market segments. However, the solutions they offer are different in each category. Therefore, we have mentioned the corresponding ERP solution also.

We have categorized vendors into five categories; the first three are based on the size of the ERP customer they serve, while the last two provide solutions for industries and alternate ERP solutions. Though there are more vendors offering specialized and vertical-specific ERP solutions, we have tried to capture the major vendors in each segment.

Vendors Serving Small Businesses (<100 seats)

Microsoft Dynamics SL

Exact Software EXACT ONLINE solution

SAP Business One (midmarket focused as well)

Intuit QuickBooks Enterprise

Sage ERP X3

Vendors Serving Medium-Size Businesses (100-500 seats)

Microsoft

Dynamics GP

Dynamics NAV

SYSPRO

Exact Software EXACT GLOBE solution

SAP Business All-in-One

Sage

Sage MAS 90 ERP and MAS 200 ERP

Sage Accpac Extended Enterprise Suite

Infor ERP solution

Epicor ERP solution for Mid-sized businesses

Vendors Serving Enterprises (>500 seats)

Microsoft Dynamics AX

SAP

SAP Business Suite

SAP ERP

Oracle

JD Edwards EnterpriseOne

Oracle E-Business Suite

PeopleSoft Enterprise

Agresso Business World ERP Solution

Vendors Serving Specific Vertical Industries

Financial Services

Microsoft Dynamics Financial Management Solutions
 SAP® FINANCIALS for Banking
 Lawson M3 Financials - for manufacturing and distribution related industries
 Lawson S3 Enterprise Financial Management - for services sector industries
 QAD Enterprise Financials

Manufacturing

Microsoft Dynamics Solutions for Manufacturing
 QAD Manufacturing Solutions
 Infor ERP TRANS4M for Automotive Industry
 Infor ERP LN Solution for discrete and project-based manufacturers
 Sage PFW ERP – for manufacturers in paints and coatings, specialty chemical, consumer packaged goods, foods, and nutraceutical
 Sage Pro ERP – for manufacturing companies
 Lawson Process and Discrete Manufacturing Software

Distribution and Logistics

Microsoft Dynamics Distribution Management Solutions
 SAP for Wholesale Distribution
 Lawson distribution management software

Health Care

SAP for Healthcare software solution
 Microsoft Dynamics Health Care Management Solutions
 Lawson Healthcare Software Solutions

Retail

SAP Business All-in-One for Retail
 Microsoft Dynamics Retail Business Solutions
 end 2 end RETAIL by IFS and Centric
 Lawson Retail Software

Government

Microsoft Dynamics Government Management Solutions
 Lawson Solutions for Public Sector
 Deltek Government Agency Software Solutions

Education

Microsoft Dynamics Solutions for Education

Professional Services

SAP Business All-in-One for Professional Services
Microsoft Dynamics Solutions for Professional Services
Lawson Service Providers Software
Deltek Vision

Non profit Organizations

Deltek Non Profit Software
Microsoft Dynamics Non-profit Organizations Management Solutions

Multinational Organizations

Epicor ERP solution for Multi-national firms

Vendors Providing SaaS & Open Source ERP Solutions**On-demand/SaaS ERP Solutions**

SAP Business By Design
QAD On Demand
Intacct
Workday
NetSuite

Open Source ERP solutions

Compiere
Apache OFBiz
xTuple's OpenMFG

About FOCUS

Our Mission

Our mission is to support business professionals' critical purchase decisions by creating and distributing the highest quality, most relevant purchase research and tool sets.

Our Approach

To ensure maximum insight and relevancy, Focus has designed a four factor approach to buyer-centric research. All research at Focus begins with defining the buyer factor. Categorized in our research as Buyer Types, the buyer factor identifies the buyer needs and preferences in a market that make a difference in selecting the right product and vendor. Buyer Types are studied and developed based on Focus' interaction with thousands of buyers across a category. The buyer factor in turn shapes Focus recommendations on how buyers approach three other critical factors: 1) product requirements, 2) cost considerations and 3) vendor relationships.

Buyer Feedback

In addition to speaking with industry experts and other participants, a critical priority is to integrate feedback from experienced buyers. We speak with thousands of buyers each month and conduct our formal buyer surveys throughout the year.

For more information on our research approach, please visit [Focus](#).