

ENTERPRISE RESOURCE PLANNING FOR STARTUPS IN IRAQ

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refers to a type of software that organizations use to manage day-to-day business activities such as accounting, procurement, project management, risk management and compliance, and supply chain operations. A complete ERP suite also includes enterprise performance management, software that helps plan, budget, predict, and report on an organization's financial results. In Iraq, enterprise resource planning is used in most governmental and private companies and institutions. this Book For ERP systems (<https://www.pdfdrive.com/enterprise-resource-planning-erp-d42992753.html>).

INTRODUCTION

ERP which stands for Enterprise Resource Planning is a modular software system designed to integrate the main functional areas of a company's business processes into one integrated system. ERP software standardizes, simplifies, and integrates business processes including finance, human resources, procurement, distribution, and other departments. In 1990, Gartner coined the term ERP to describe the evolution of material requirements planning (MRP) and manufacturing resource planning (MRP II) as both expanded beyond manufacturing into other parts of the company, usually finance and human resources.

I. DEFINITION OF ERP SYSTEMS

ERP systems typically include the following characteristics:

- An integrated system
- Operates in (or near) real time
- A common database that supports all the applications
- A consistent look and feel across modules
- Installation of the system with elaborate application/data – integration by the Information Technology (IT) department, provided the implementation is not done in small steps [21]
- Deployment options include: on-premises, cloud hosted, or SaaS.

II. IMPLEMENTATION

ERP's scope usually implies significant changes to staff work processes and practices. Generally, three types of services are available to help implement such changes: consulting, customization, and support. Implementation time depends on business size, number of modules, customization, the scope of process changes, and the readiness of the customer to take ownership for the project. Modular ERP systems can be implemented in stages. The typical project for a large enterprise takes about 14 months and requires around 150 consultants. Small projects can require months;

multinational and other large implementations can take years. Customization can substantially increase implementation times.

III. CHARACTERISTICS

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IV. CONNECTIVITY TO PLANT FLOOR INFORMATION

ERP systems connect to real-time data and transaction data in a variety of ways. These systems are typically configured by systems integrators, who bring unique knowledge on process, equipment, and vendor solutions. Direct integration—ERP systems have connectivity (communications to plant floor equipment) as part of their product offering. This requires that the vendors offer specific support for the plant floor equipment their customers operate. Database integration—ERP systems connect to plant floor data sources through staging tables in a database. Plant floor systems deposit the necessary information into the database. The ERP system reads the information in the table. The benefit of staging is that ERP vendors do not need to master the complexities of equipment integration. Connectivity becomes the responsibility of the systems integrator Enterprise appliance transaction modules (EATM)— These devices communicate directly with plant floor equipment and with the ERP system via methods supported by the ERP system. EATM can employ a staging table, web services, or system-specific program

interfaces (APIs). An EATM offers the benefit of being an off-the-shelf solution. Custom-integration solutions—Many system integrators offer custom solutions. These systems tend to have the highest level of initial integration cost, and can have a higher long term maintenance and reliability costs. Long term costs can be minimized through careful system testing and thorough documentation. Custom-integrated solutions typically run on workstation or server-class computers.

V. HOW DOES AN ERP SYSTEM WORK?

The main purpose of an ERP system is to increase organizational efficiency of an organization by managing and improving how company resources are utilized. Improving and/or reducing the number of resources necessary without sacrificing quality and performance are keys to effectively improving business growth and profitability. ERP software has the ability to collect and compare metrics across departments and provide a number of different reports based on roles or specific user preferences. The data collected makes finding and reporting on data faster and gives a complete view of business performance with complete insights on how resources are being spent. ERP synchronizes reporting and automation by reducing the need to maintain separate databases and spreadsheets that would have to be manually merged to generate reports. This combined data collection and reporting offers valuable insight, such as where to cut costs and streamline processes, providing the information to make real-time business decisions.

VI. WHAT INDUSTRIES CAN BENEFIT FROM ERP?

ERP software can be used in any industry to help a business become more efficient. It provides an effective communication tool that can manage information between internal and external departments, assist with daily activities to manage projects, track adherence to guidelines, and handle day-to-day intricacies that come with running a business. Because the roots of enterprise planning software are closely associated with manufacturing, there are robust manufacturing ERP solutions that cater to a variety of specific industries. ERP software systems are very diverse and are key parts of many industries, including but not limited to:

- Industrial Machinery and Components
- Construction and Home Improvement
- Electronics and Technology
- Aerospace and Defense
- Healthcare, Pharmaceutical and Life Sciences
- Agribusiness, Farming and Agriculture

VII. WHAT IS THE BUSINESS VALUE OF ERP?

ERP systems are used to help businesses of all sizes overcome challenges—from small businesses to massive enterprises. Early business practices may no longer keep up with growing demand and require more efficient business tools, like ERP, to effectively manage a business' systems and resources. ERP software systems provide many benefits to the health and growth of a business.

VIII. CONCLUSION

There are as many reasons for successful ERP implementations as there are for failed projects. However, success seems to often be measured by whether or not the project came in on time and under budget. Whereas, fully utilizing the system to achieve improved business practices appears to be ignored. Performance measures must be developed and standardized to give organizations a clearer picture of the benefits derived from Enterprise Resource Planning implementation. Much has been written about and learned from some well-publicized successes and failures in ERP implementations. Some of it has even been directly contradictory. However, most agree on some basic rules:

- Establish the business processes prior to selecting the software.
- Staff the project team with members of the user community in addition to IT staff.
- Develop an implementation plan and stick to it.
- Train the users thoroughly on the process changes and flow of information in addition to the actual software.
- The project doesn't end with "go-live", but must be continually monitored.

IX. REFERENCES

1. Eric L. Keller, "Lessons Learned", *Manufacturing Systems*, v17, iss.11, pp. 44-50.
2. R. Michael Donovan, "No magic cure will fix all ERP ills."