ENTERPRISE RESOURCE PLANNING IN BUSINESS Manasyan N.K.¹, Muradyan M.G.²

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Abstract: enterprise resource planning (ERP) is a type of software system that is used to manage core business processes and business functions in a company or organization to achieve optimal performance. To be successfully implemented, ERP systems must include structured project management, full transparency, and user support at all levels of the organization. The article analyzes enterprise resource management systems, their functions, as well as a comparison of the two best ERP systems and how to make the right choice of system for the enterprise. Keywords: enterprise resource planning, ERP in business, Oracle ERP system, Microsoft Dynamics 365 ERP system.

ПЛАНИРОВАНИЕ РЕСУРСОВ ПРЕДПРИЯТИЯ В БИЗНЕСЕ Манасян Н.К.¹, Мурадян М.Г.²

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Аннотация: планирование ресурсов предприятия (ERP) — это тип программной системы, которая используется для управления основными бизнес-процессами и бизнес-функциями в компании или организации для достижения оптимальной производительности. Для успешного внедрения ERP-системы должны включать структурированное управление проектами, полную прозрачность и поддержку пользователей на всех уровнях организации. В статье анализируются системы управления ресурсами предприятия, их функции, а также сравнение двух лучших ERP систем и как сделать правильный выбор системы для предприятия.

Ключевые слова: планирование ресурсов предприятия, ERP в бизнесе, ERP-система Oracle, ERP-система Microsoft Dynamics 365.

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The major goal of ERP is improving business processes and decreasing costs by increase operating efficiency. Enterprise systems or ERP systems are commercial software packages promises the seamless integration of all the information flowing through an enterprise e.g. Financial and accounting information, human resources information, Customer information, manufacturing information, supply chain information, plant maintenance information and so on. ERPs are user friendly and works successfully at each level of organization. It allows different departments with diverse needs to communicate with each other by sharing the same information in a single system. ERP thus as a result of its benefits, ERP has become the backbone of business intelligence for organizations by regularly upgrade their systems. Excellent project management is also needed for successful ERP implementation, because without good project management, ERP implementation projects that are large in scale and must take place over longer time periods may end in failure. So project teams should have guidelines to execute ERP implementation from their project objectives and work plan to their resource allocation plan [1].

ERP is a single system that allows you to manage all business processes: Plan sales and production, Manage inventory in a warehouse, Maintain a customer base, Correspond with customers by e-mail directly to the ERP, Place customer's orders, Create orders for suppliers, Keep accounting records and submit reports, Manage personnel, Calculate the cost of production, receive management reports and analyze the results of the business. ERP system is an essential tool for modern businesses, and to understand ERP, you must first understand functional areas and how a business works. A business processes is a collection of activities that accomplish a specific organizational goal.

Businesses must always consider the customer's viewpoint in any transaction, so business creates an output that is of value to the customer [2].

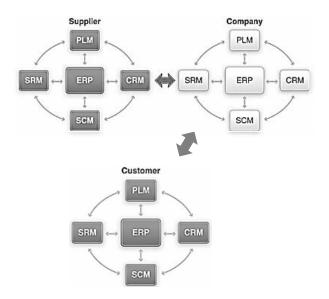


Fig. 1. The Enterprise system application suite.

One of the key advantages of utilizing a complete suite of software is that the data and processes are integrated among the system in the suite. Figure 1 describe that are separate systems, they are designed so that they work together in an integrated manner. Examples of inter-company systems are Supply Chain Management (SCM) system, which connect a company's ERP system to those of its suppliers. SCM connects a company to other companies that supply the materials it needs to make its products. SCM system help companies plan for their production requirements and optimize complex transportation and logistics for materials. SRM systems manage the overall relationships with the materials suppliers. These systems contain functionality to manage the quotation and contracts processes and act as extensions to the procurement and material planning processes of ERP systems. Customer Relationship Management (CRM) system connect a company's ERP system to those of its customers and provide companies with capabilities to manage marketing, sales, and customer service. CRM systems are an extension of the fulfillment process of ERP systems. On the other side of manufacturing and sales processes, Product Lifecycle Management (PLM) systems help companies administer the processes of research, product management and design, help companies take new product ideas from the virtual drawing board [3].

Although most ERP systems will provide similar functionality, due to the complex nature of sophisticated ERP, it can be difficult to compare them, especially when evaluating more than 2-4 potential vendors. If a project team does not clearly understand the changes in its organizational structure, strategies, and processes from ERP implementation, it will not be in a position to benefit from ERP's competitive advantage. There are several ways, thanks for you can compare ERP software offerings: Understanding business needs, Include the right stakeholders when gathering and ranking ERP evaluation requirements, Company history and current standing [4].

Remember, the 'best ERP' is the one that meets the needs of your business, but not the first search result on Google. According to Forbes, two leading vendors in the industry is Microsoft Dynamics 365 and Oracle ERP. Let's compare Microsoft Dynamics 365 and Oracle, and although these are winning in the ERP leaderboard, they may not necessarily be the right choice for your business.

Oracle ERP is a business management software application that provides a platform for managing all aspects of a business, from product procurement to financial reporting. Oracle ERP offers a broad range of capabilities that make it an ideal choice for businesses looking for a powerful enterprise resource planning software solution. Thanks to the Oracle ERP solution, such well-known companies as ZOOM, Xerox, FedEx, MTN, etc. have achieved success [5].

Microsoft Dynamics 365 is a leading ERP solution for businesses of all sizes. The Microsoft Dynamics ERP system provides your company or organization with a single, end-to-end solution across finance, operations, supply chain, sales and customer service. This solution has the flexibility to easily allow you to upgrade from other 3rd party financial accounting legacy ERP systems. Dynamics 365 offers pre-built applications and easy-to-use Application Programming Interfaces (APIs), allowing business to gather and use data faster. The end-to-end support of business

processes across the whole organization enables the integration of internal organization units and external business partners in Dynamics 365. Most people feel comfortable with Dynamics 365 from the very beginning, because of its intuitive user interface. It helps to start working in Dynamics 365 easily and efficiently [6].

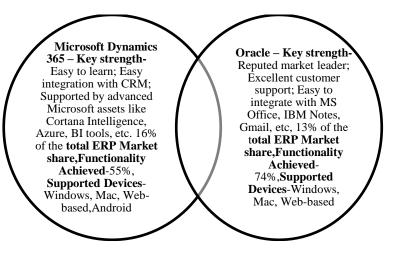


Fig. 2. Difference between Microsoft Dynamics 365 and Oracle.

Both Dynamics 365 and Oracle offer free trials, so you and your team can get a feel for the user experience that their products provide. When we comparing the following ERP systems, the following important features are highlighted that the company should take into account when choosing a vendor:

• Microsoft Dynamics 365 is very expensive, while the introduction of Oracle's integrated cloud ERP system has reduced costs,

• The successful Oracle's ERP implementation is complete when every employee adopts the system, which in turn requires a training learning session. Hence, making it a challenging and time-consuming process. Although Microsoft Dynamics 365 ERP software is often a large investment, it can merge your IT costs to help you save money in your organization. Instead of spending dollars on multiple systems that need different staff, infrastructure, and licenses, you can use one single ERP system to lower the overall cost.

• Microsoft dynamics 365 lack of transparency, while Oracle's ERP working on a shared platform maintains transparency between departments, ensuring easy communication and eliminating data redundancy.

• Oracle customization takes a lot of time, expertise and effort. It also requires a fair amount of monetary investment, while Microsoft dynamics 365 simple to manage the ERP software and customize it to your business needs. Dynamics 365 integrates with other Microsoft products which makes it even more efficient to move between apps.

With each owning a substantial market share, it's clear that both Microsoft Dynamics and Oracle have a lot of fans in the business software system. Not all ERP solutions have the same purpose. Which one is right for you will solely depend on your particular organization's requirements and preferences, therefore it should be given thoughtful consideration before finalizing the decision. Selecting the right ERP can be one of your biggest investment.

CONCLUSIONS

ERP plays an important role in modern business, helping businesses to be competitive and successful in a dynamic and complex business environment. ERP administers and integrates the business into a single system that facilitates the free flow of information and knowledge within the organization, resulting in increased efficiency. In an increasingly competitive business environment, you must be able to keep up with ever-changing technology trends. However, without ERP, organizations tend to function separately, with different departments using different, incompatible system. ERP systems encourage collaboration and information exchange between departments and teams, as well as system integration to improve productivity and efficiency. Switching to an ERP system can have unpleasant consequences if a company does not take the time to make sure that its culture is ready for change and that its organizational structure can adapt to the new system. It is worth nothing that the ERP system must be customized for the company and it must be implemented correctly to achieve the desired results.

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