



## ERP FOR SMALL AND MEDIUM COMPANIES

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**Abstract** *In the article I studied the impact of ERP systems in small and medium-sized companies. In the first part we started with a presentation of systems based on the current trends of the companies, the origin of this term, their advantages and their characteristics. In the second part we presented the success factors regarding the implementation of the ERP platforms and also analyzed the rate of failure of the implementation of this platform. Following the analysis of ERP systems, we have found that they want to ensure the core functions of the company regardless of its business.*

**Key words:**  
Company, ERP,  
optimization, process,  
system

**JEL Codes:**

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### 1. INTRODUCTION

Due to current trends, companies want to integrate their businesses so that they respond in a more efficient and flexible way to market demands. ERP (Enterprise Resource Planning) systems respond to these needs and are present in most companies and are increasingly used in small and medium-sized businesses. The term ERP originates from the systems designed to be able to plan the use of resources in a business.

ERP systems try to cover the core functions of the organization regardless of its business. They are used by businesses, non-profit and non-governmental organizations, etc. It can be mentioned that any ERP system can be considered as a software package that has to ensure its functionality in a single package. From a technical

point of view, software packages provide the financial and accounting functions of the institution.

ERP systems can be defined as a complex software solution in which elements are integrated into a common platform used to manage the organization's resources. E.R.P. and acts as an assurance tool for optimizing productivity and maximizing procedures to achieve the services of an organization in a unified system.

ERP systems offer additional benefits such as: maintenance costs are reduced, increased reporting capacity and efficiency. ERP systems contain IT security solutions and are thus protected from external attacks.

It can be said that an ERP system is a multi-modular complex software system that integrates the business processes of the enterprise with the aim of optimizing and increasing their efficiency.

From a functional point of view, ERP software covers the following areas of business interest, namely: production planning, procurement management, stock management, supplier interaction, customer relationship management, order tracking, financial management and human resource management.

**The features of ERP systems are:**

- have a modular design
- the database is common and central
- modules are integrated and data between modules is automatically created
- can be configured and adapted to company requirements
- systems are complex and flexible and offer good practice
- most ERP systems can also be accessed

via the Internet

ERP systems differ from each other, but basic modules are generally the same, some of them providing management for: accounting, production, sales, distribution, transportation, human resources.

**Here are some of the benefits of an ERP system. These are :**

- build relationships with customers and suppliers,
- reducing production costs
- Full enterprise resource planning
- Improving productivity
- profit maximizes with increased flexibility and responsiveness to market requirements

Production is the most important value chain process in a manufacturing company, and the quality and competitiveness of the products resulting from the production process on the market is essential. To achieve these goals, the efficiency of the IT management system is essential. Only the implementation of a perfectly sophisticated IT solution on the specificities of a manufacturing enterprise can provide the premises for its competitiveness.

In a company, the investment of an ERP system is justified by:

- Enhance the company
- Standardization of economic processes
- Elimination of information islands

Generally, according to published studies, there are two types of motivations that determine the implementation of an ERP:

1) Technological motivations

- replacing an information system that is not integrated or technologically overtaken
- improves the quality and accessibility of information.
- i can integrate the business processes and systems that support them.
- the process of integrating a new business can be simplified

2) Operational motivations

- business processes can be optimized
- structural costs can be reduced
- customer response times can be improved
- complex business processes can be simplified
- new business strategies can be implemented

Ideally, ERP offers a single database that contains all data for the software modules that will include:

- Production: Engineering, cost of materials, programming, quality control, cost management
- Supply flow management: inventory, order entry, procurement, product configuration,
- Financial: Great book, register of: house, payments, register, receipts
- Projects: costs, billing, time and expenses
- Human resources: human resources, payroll, training, benefits, timing.
- Customer relationship management
- Data storage

The selection of ERP systems is complex and important, and the purchase decision is made on the basis of presentations from the supplier where the client sees many spectacular and complicated functionalities that the ERP system can achieve.

## 2. SUCCESS FACTORS IN DEPLOYING ERP PLATFORMS

ERP implementation decision is a critical point in the life of a company. The activities of selecting and implementing an ERP system are in an environment of (re) creating or (re) building the values of an organization. In the absence of complete prior documentation, managers and, in general, individuals in companies that will interact directly with ERPs have, for the most part, the impression that ERP is a software that "does everything" about the financial and accounting sector, reducing to a minimum, effective human

labor, a sort of "universal panacea" that can turn a mediocre firm into a successful company, possibly with low costs and effort. Unfortunately, software to their liking has not yet been invented, and the ERP, an efficient weapon if handled properly, can show the reversal of the medal even from the early phases of its use if errors are made.

Given the confusion between a true ERP system and punctual accounting applications, warehouse management, etc., it is necessary to stop identifying and the technologies that a powerful ERP solution should contain:

- A modern database available on any platform (Windows, Linux, AIX) to allow communication with other applications (ODBC, TCP / IP, XML);
- A full range of eBusiness technologies such as external and internal email, chat, VoIP telephony, virtual store support;
- mobile interconnection support (laptop, PDA), a company portal that allows the application to be used from anywhere in the world via the Internet, or running the application on parallel servers;
- Responding to important requirements for centralizing and integrating information, availability, security, scalability, etc.;
- Integration of the different modules implemented so that the system is interfacing, easily configurable, able to support on-line processes and provide tools for decision support.

Considering the rather high costs involved in acquiring an ERP, it is more than natural to try to

discover the factors that determine a successful implementation of such a solution:

- Selection of a performance platform that is close to the client's specific activity so that the configuration level is minimal and does not generate stability, functionality or expansion issues.
- Appropriate communication between the two project teams. Customers need to understand that the purchase of an ERP is completely different from the simple buying process of commodities and should not start with the wrong mentality, that of the purchaser who, by providing the financial resources, awaits completion of the implementation and the guarantee.
- Involvement in the implementation of all departments within the company. It should be noted that not only the IT department is in charge of implementing the ERP solution, but, although at first sight it is not necessary, the marketing, sales, finance, accounting, human resources departments are mandatory.
- Eliminate customer's suspicions of supplier suggestions. It is assumed that a serious company has a strong background to be able to offer effective business practices and ways to improve the work environment. However, if the customer is not sufficiently open to the supplier's proposals, there is a risk that the cumbersome practices used up to that point will perpetuate the new system by diminishing its value.
- Removing users' reluctance towards a new way of working. The manager has a crucial role in educating employees, making sure that they understand the need to use an integrated solution and are ready for another approach to their activities.
- Avoiding the "Big Bang" implementation. The so-called "Big Bang" approach assumes that switching to the new system is made "from a blow" rather than being done on components. More cautious approaches, where the new parts of the system are gradually introduced, allow finding and correcting potential problems before switching to the next phase, thus reducing the level of shock to users.
- Developing discipline within the system that can be supported by: introducing new data into the system correctly, modifying existing data in a timely manner, avoiding continuing work by misleading the system.
- Realism about the duration of implementation and immediate benefits. ERP makers are often blamed if the estimated results do not materialize. The truth is that true results are not immediately visible, but it may take years even for profit to come from using ERP.
- Avoid the delay of the enunciation process on old applications. Although it is not advisable to work in parallel for more than two months, customers continue this practice for up to half a year.

Minimize hidden costs by:

- Concordance between negotiation and implementation (when negotiating customer

requirements are minimal with the aim of lowering the purchase price, but during implementation, requests are the maximum inconsistent with the initial negotiation);

- At the bidding stage all adjacent costs involved in implementing an ERP should be discussed, namely: business analysis costs, application costing costs, license of modules, application technical requirements (user licenses, hardware upgrade investments ) and its maintenance (harmonization with local legislation, technical support, updates, etc.), operating system, databases;
- avoiding triggering of the implementation process without substantial training, which must be based on a professional analysis of the IT system;
- the beneficiary must be aware that the implementation process is led by a project manager who permanently pursues compliance with the projected costs.

### 3. ANALYZE THE FAILURE OF PLATFORM DEPLOYMENT

The software industry has so high a failure rate that it has become a kind of negative reference in terms of project management. On average, about 70% of projects related to ERP deployment fail to meet their goals. This failure rate is not even shocking if ERP systems are not just software but they require greater coordination between IT and business management, which has led to the downfall of many of the early ERP implementers. Companies typically deploy ERP systems to replace

outdated technology and consider new processes as extra luggage, not as an extra value.

The main components of an ERP platform are: ERP software, the commercial processes that ERP software supports, system users, hardware, and operating systems running ERP applications. The failure of one or more components can lead to the failure of the entire project. If hardware-related errors are easier to identify and repair, with the other components the story is different:

- module-based ERP software is the core of ERP systems, and ERP projects involve a significant degree of adaptation.
- business processes are on three levels: strategic planning, managerial control, operational control. Organizations constantly review commercial processes at all levels in response to changing business environments.
- ERP system users are employees of organizations at all levels.

Due to the fact that the success rate is far exceeded by the failure rate in ERP implementations (mostly due to human influence and deployment strategies), many companies are intimidated and discouraged from trying these solutions. A company should not be reluctant to ERP platforms as a consequence of the numerous past failures of other companies. By identifying mistakes committed by companies in the past and learning from them, a company can assume the ability to prevent similar mistakes while implementing an ERP solution. This should be considered as an advantage and should not use the

ERP to inspire fear because it offers a lot of benefits that some only dare to dream about.

Famous cases such as Boeing, Panasonic or Siemens illustrate the failure of the projects, in the sense of missed targets or overpriced budgets. The consequences of these failures are serious, taking into account the consistent amounts spent and the years of effort invested.

But at high risks, great benefits. Or who does not risk, does not win.

### CONCLUSIONS:

ERP systems are trying to cover the core functions of a company regardless of business or its organization chart. Due to their effectiveness, they are already present in most large companies and are increasingly used in the small and medium business segment.

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