

ERP : Myth or Fact?

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The main idea for this presentation comes from the rumors about benefits of ERP. Usually companies are not concentrating on the real needs, and try cutting the costs no matter of results. Even ERP is a “cost” for most of them.

Necessitate of ERP is to implement complete control over the company, having processes and data availability, integrity and confidentiality at any time. Having this implemented, reduce of the costs is essential result.

I. INTRODUCTION

ERP stands for Enterprise Resource Planning. ERP is a way to integrate the data and processes of an organization into one single system. Usually ERP systems will have many components including hardware and software. In order to achieve integration, most ERP systems use a unified database to store data for various functions found throughout the organization. Enterprise resource planning (ERP) is a company-wide computer software system used to manage and coordinate all the resources, information, and functions of a business from shared data stores. An ERP system has a service-oriented architecture with modular hardware and software units or "services" that communicate on a local area network. The modular design allows a business to add or reconfigure modules (perhaps from different vendors) while preserving data integrity in one shared database that may be centralized or distributed. The term ERP originally referred to how a large organization planned to use organizational wide resources. In the past, ERP systems were used in larger more industrial types of companies. However, the use of ERP has changed and is extremely comprehensive, today the term can refer to any type of company, no matter what industry it falls in. In fact, ERP systems are used in almost any type of organization - large or small. Today's ERP systems can cover a wide range of functions and integrate them into one unified database. For instance, functions such as Human Resources, Supply Chain Management, Customer Relations Management, Financials, Manufacturing functions and Warehouse Management functions were all once stand alone software applications, usually housed with their own database and network. Today, they can all fit under one umbrella - the ERP system.

II. MYTHS AND FACTS

The biggest myth of ERP is that it is no more than an upgraded version of old systems. Most of the SMEs think

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like this. But it is not true. Some of the common myths vis-à-vis integration of the software is easy job, transfer of data is unidirectional, copying data in software integration, it can increase the efficiency of the business, it has magic box- can generate any type of report or can take any decision.

Latest ERP is good for your organization, it will reduce the IT staff - but in actual things are totally different which is discussed below.

MYTH: “Our project is not progressing as planned because it lacks management commitment”

FACT: Progress is often not achieved because of management burn-out. People involved can be cynical by promises made and expectations that were built-up by overzealous vendor reps, consultants who collect very expensive fees as the project lingers and IT personnel who were looking for big budgets and the opportunity to rub shoulders with the “big boys.” When management is made aware of the process, and understands that there are no silver bullets in ERP or quick fixes, then expectations don’t run amok and progress can be measured in a real and meaningful manner. A successful ERP implementation can provide a realistic ROI.

MYTH: “Our system went live in just a few months”

FACT: It is more likely that the financial part of the ERP went live in a few months rather than the whole system. Corporate financials are fairly straight forward to implement. Also, in most organizations the financials are already “under control.” An ERP system’s biggest added value is not in the financial area, but rather in other parts of the operation and perhaps in tying those other parts into the financials. Modeling and effectively managing operations in an integrated ERP system may take years to implement. In fact, it is an ongoing process. Ultimately, the system must be flexible enough to accommodate operational changes indefinitely.

MYTH: “Once we finished getting our ERP system up and running, our expenses went down drastically.”

FACT: Outside consulting fees may have been reduced and the initial costs for setting up the system are paid off, but companies often fail to take ongoing internal implementation investment into consideration. In the words of one CIO, “we planned for \$600,000 and a 6 months project; we reached both and then stopped counting.” An ERP implementation extends over long

periods of time, and any worth its salt will take years, not months.

MYTH: "Consultants are professionals who can guide the selection process and manage the project while maintaining an objective stance."

FACT: We believe that anyone reading this already knows the facts.

MYTH: "Comparing ERP functionality lists is a good practice for initial screening of vendors for your project."

FACT: Functionality lists are of marginal value in the selection of potential ERP systems. A single line in a list may represent a world of functionality in one software packages and very little in another. Even if the desired functionality is fully supported in the software, actually making it work for your specific needs may make implementation complex and cost prohibitive. Referrals in your industry are a much better yardstick. As the implementation team is just as important as the software in terms of successful projects, referrals from industry representatives regarding the implementation team are the second most valuable indicator.

Many industry leaders have believed on the evasive nature of ERP benefits. But how real is the issue of ERP benefits realization? To find out, it helps to look into some key statistics from ERP benchmark study. The study, which focuses on companies across the globe that have implemented or are in the process of implementing various ERP packages, reveals some interesting points:

- 30% of those surveyed did not realize any sort of staff reductions after go-live
- 18% did not measure benefits after go-live
- 28% had some type of problem or operational stoppage after go-live

Surprisingly, only 18% of companies did not measure post-go-live benefits (in other words, 82% did indeed measure). Besides almost 100% of the companies that have implemented ERP, does not measure post-implementation benefits. Second, the fact that 28% experienced stoppages seems somewhat alarming. It does highlight that at least 1 in 4 companies have operational problems and/or stoppages because of the disruptions caused by ERP. So what does this all mean? First, the results show that ERP benefits are by no means guaranteed. Second, the risk of ERP disrupting an organization's core operations is a significant business risk. These factors are clearly areas that will affect the ROI of the investment in ERP and should be carefully managed as part of an overall ERP Benefits Realization plan.

III. ADVANTAGES & DISADVANTAGES

There are a number of powerful advantages to Enterprise Resource Planning. It has been used to solve a number of problems that have plagued large organizations in the past. At the same time, it is not without a number of disadvantages. Being able to weigh the two will allow a

company to decide if this solution will properly meet their needs.

Advantages of ERP:

In the absence of an ERP system, a large manufacturer may find itself with many software applications that do not talk to each other and do not effectively interface. Tasks that need to interface with one another may involve:

- design engineering (how to best make the product)
- order tracking from acceptance through fulfillment
- the revenue cycle from invoice through cash receipt
- managing interdependencies of complex Bill of Materials
- tracking the 3-way match between Purchase orders (what was ordered), Inventory receipts (what arrived), and costing (what the vendor invoiced)
- the Accounting for all of these tasks, tracking the Revenue, Cost and Profit on a granular level.

Change how a product is made, in the engineering details, and that is how it will now be made. Effective dates can be used to control when the switch over will occur from an old version to the next one, both the date that some ingredients go into effect, and date that some are discontinued. Part of the change can include labeling to identify version numbers. Computer security is included within an ERP to protect against both outsider crime, such as industrial espionage, and insider crime, such as embezzlement.

Disadvantages of ERP:

Any problems organizations have with ERP systems are due to inadequate investment in ongoing training for involved personnel, including those implementing and testing changes, as well as a lack of corporate policy protecting the integrity of the data in the ERP systems and how it is used. Limitations of ERP include:

- Personnel turnover; companies can employ new managers lacking education in the company's ERP system, proposing changes in business practices that are out of synchronization with the best utilization of the company's selected ERP.
- Customization of the ERP software is limited. Some customization may involve changing of the ERP software structure which is usually not allowed.
- Re-engineering of business processes to fit the "industry standard" prescribed by the ERP system may lead to a loss of competitive advantage.
- ERP systems can be very expensive to install often ranging from 30,000 to 500,000,000 for multinational companies.

- ERP vendors can charge sums of money for annual license renewal that is unrelated to the size of the company using the ERP or its profitability.
- ERPs are often seen as too rigid and too difficult to adapt to the specific workflow and business process of some companies—this is cited as one of the main causes of their failure.
- Systems can be difficult to use.
- Systems are too restrictive and do not allow much flexibility in implementation and usage.
- The system can suffer from the "weakest link" problem—an inefficiency in one department or at one of the partners may affect other participants.
- Many of the integrated links need high accuracy in other applications to work effectively. A company can achieve minimum standards, then over time "dirty data" will reduce the reliability of some applications.
- Once a system is established, switching costs are very high for any one of the partners (reducing flexibility and strategic control at the corporate level).
- Resistance in sharing sensitive internal information between departments can reduce the effectiveness of the software.
- There are frequent compatibility problems with the various legacy systems of the partners.
- The system may be over-engineered relative to the actual needs of the customer.

Conclusion:

The success of the system is fully dependent on how the workers utilize it. This means they must be properly trained, and a number of companies have attempted to save money by reducing the cost of training. Even if a company has enough money to implement ERP, they may not be able to successfully use it if they do not have enough money to train their workers on the process of using it. One of the biggest problems with ERP is that it is hard to customize. Very few companies can effectively use ERP right out of the box. It must be modified to suit their needs, and this process can be both expensive and tedious. Even when a company does begin changing the system, they are limited in what they can do.

IV. ROI

ERP covers a multitude of topics, all integral parts of a very expansive and comprehensive process. In learning what it's about and how it works, there are some central features one must understand.

Business process reengineering: ERP is about leveraging a company's information, as well as the information resources of partner companies, in the pursuit of more efficient ways of doing business. In general, a company's business processes already leverage existing resources and information availability optimally in order to achieve the most efficient operation possible. But by

reconfiguring information resources, combining and extending applications, and partnering with other companies in the sharing of information, new possibilities emerge in terms of how business processes (such as manufacturing, order processing, and inventory control) may be implemented. Making business systems better is a central ERP objective.

Database integration: Most traditional businesses store information by business function. Financial information is in an accounting database, customer data is in a customer database, and so on. ERP calls for the integration of databases into a super-database that enables logical links between records that traditional applications would not require but that process-oriented ERP applications do require. Often, ERP platform software simply creates convenient and easily maintained bridges between existing databases rather than requiring the awkward generation of new databases from old.

Enhanced user interfaces: ERP applications, in general, cease to be stand-alone and become steps in a process. Often, a user interface will initiate down-line processes, in addition to its primary function, in highly efficient ways (such as the triggering of updates in down-line databases when a record is changed in the database the user interface is using). It is also often the case that ERP-integrated databases offer wider reporting options via application interfaces than conventional systems do. It is important to learn what options are useful and how this extended reporting may be enabled.

Data transport between companies: As the Internet continues to blossom, the sharing of strategic information between partner companies and logistical data between companies partnered in supply chains is increasingly important. The enhanced databases and interfaces of an ERP-based company are made all the more valuable if partner companies are invited to the party. So a broad and detailed knowledge of the various data communication options is essential to an ERP designer.

Extended and distributed applications: What exactly does it mean to extend an application or to share in a distributed application? Basically, a conventional information system is much like a farm covered with ponds: you go to a particular pond and scoop out a bucket of water in order to water your plants. In an ERP environment, the ponds are all converted into an irrigation system: the water is routed to the section of the farm where it's needed. And this includes sharing water with neighboring farms. An extended application has ancillary functions; a distributed application accommodates many users—even if the users have different needs and are all making use of different portions of database records. It is essential to understand how to facilitate this varied use of common data and to familiarize yourself with how a particular development environment can enable it.

V. SMALL BUSINESS

Despite aggressive cost cutting, middle-market enterprises still consider pressure to reduce operating costs as key to their business strategies. Yet these businesses are in the market for new technology — specifically customer

relationship management (CRM), an area in which either slight increases or significant investment over the next two years is most often designated.

ERP for small business calls for voluminous investments. The amount was fairly affordable to small business entities. There is no doubt or two say about its benefits. But the question that kept ringing in the market was can everyone afford it. The answer was a stubborn no initially but not anymore. ERP outsourcing, Open Source ERP's and ERP applications designed for S.M.E.'s (Small and medium Enterprises) have successfully overcome the above said limitations.

Enterprise Resource planning was a term restricted purely to elite class. This scene was witnessed in the IT market for some long time ever since ERP was introduced. The large organizations went ahead with ERP process unmindful of negative consequences, not to forget mentioning the fact that they took every proactive measure to curb the same. Needles to say firms were interested in serving such large players. So the fate of Small and Medium enterprises remained unanswered. ERP for S.M.E's remained a mere dream. It so happened that the number of larger companies without ERP turned out to be nil. Thanks to the awareness created by vendors and IT researchers. No doubt companies were initially hesitant lot and apprehensive on just hearing the word ERP. However the industry proved them otherwise. Then came a stage where a company could not exist but without ERP. Even if their performance was satisfactory they were not able to gain any competitive advantages. This explanation of how goliaths adapted to ERP has lot of significance in studying their intervention with S.M.E. These bigger companies were not providing the required business to ERP vendors. Even though there are many big companies the number of vendors was always greater in multiples. This means only the best could strike deals and there was no possibility for mediocre or average vendors (in terms of performance). The best players also found that they had none to serve after a point of time because almost every company in the market successfully established ERP (whether on the first or further attempts).

So they had to naturally look for greener and fresher pastures. S.M.E.'S was the only answer. The next question was how to provide best services at an affordable cost and still make profit. In this case the vendors had to be worried only about the number of sales they could make and not the quantum of profits because the number of vendors was few and far between when compared with the number of S.M.E.'S choosing to go for ERP. As the saying goes "necessity is the mother of Invention" vendors had to devise cost effective applications to meet the demands of the Small and Medium enterprises. This was the origin of ERP for S.M.E.'S. This benefited them in terms of business. On the other hand the firms enjoyed greater benefits by making use of this application. Hence ERP and S.M.E. was weighed on the same scale.

The key things driving small businesses to ERP seems to be 1) growth of the small business sector, and 2) more focus on the small business market from ERP software vendors. Most of our small business clients are considering or implementing ERP because of their rapid

growth and the corresponding strain it puts on their legacy systems. In addition, large ERP vendors that typically focused solely on the Fortune 500 market are now developing lower-cost solutions with more appropriate functionality for smaller businesses.

A third and final possible reason is because many niche ERP players have entered the marketplace to provide functional solutions for specific industries. Open technologies such as .net have reduced barriers to entry into the ERP market, so many smaller, industry-specific niche players are able to fill the voids left by the big ERP companies at a lower cost.

Although this increasing focus on small business is good for companies with limited capital budgets, it also poses additional risks. Now, there are more choices than ever, and some vendors' products are much more proven than others. So small businesses should be especially thorough when evaluating and selecting an ERP package. They should engage in a vendor selection process that ensures they choose a solid software package that provides a strong ROI to the company.

S.M.E.'s are becoming the popular choice of ERP vendors. There is an increasing awareness of ERP in S.M.E. market. It has practically helped to unravel the myth that ERP is exclusively meant to business empires. ERP and S.M.E have become important part of enterprise studies.

VI. EFFECT & ESSENCE

ERP (Enterprise Resource Planning) systems are used in the organizations for information integration and aligning & streamlining their processes for delivering high value to the customers. Through its very use, it influences manager's jobs and the organization structure as well.

ERP has significant impact on the organizations and has tremendously changed the way of manager's job and organization structures. ERP implementation on five dimensions of Manager's job (autonomy, use of power, delegation, people skills and privileged information), five dimensions of organizational structure (specialization, formalization, centralization, standardization and complexity of work flow) and on the flexibility of organization has been effected by the use of ERP in organisations of all levels.

ERP is an outcome of 40 years of trial and error. It has evolved as a strategic tool because of continuous improvement in the available techniques to manage business and the fast growth of information technology. Prior to 1960s, the business had to rely on the traditional ways of inventory management to ensure smooth functioning of organisation. The most popularly known amongst them is EOQ (Economic Order Quantity). In this method, each item in the stock is analysed for its ordering cost and the inventory carrying cost. A trade off is established on a phased out expected demand of one year, and this way the most economic ordering quantity can be decided. This technique in principle is a reactive way of managing inventory.

How does an ERP system make it all happen? The essence of it is the fundamental premise that the whole

being greater than the sum of its parts. The traditional application systems, which the organisations generally employ, treat each transaction separately. They are built around the strong boundaries of specific functions that a specific application is meant to cater. For an ERP, it stops treating these transactions separately as stand-alone activities and considers them to be the part of the inter-linked processes that make up the business.

VII. IMPORTANCE

ERP is a Rising Need of Enterprises. It is a strategic tool helping an organization to gain an edge over its competitors by helping in successfully integrating its key business operations, synchronizing, planning and optimizing the resources available in the existing extremely competitive environment.

Its use has a much broader scope in today's world rather than of just planning the use of the enterprise resources.

Organizations (especially those which are borderless) face many difficulties in quickly making out the information required. The integration of the business processes improves coordination between bodies, streamlines, workflows and processes and benefits them in terms of retaining and satisfying customers by delivering their orders "just-in-time" and keeping them well informed about their orders' current status rather than keeping them waiting for just a small piece of information. ERP has the effect of making an enterprise more time-sensitive. Another benefit is of better marketing opportunities. ERP penetrates one segment after the other and addresses solutions to many debacles existing in an enterprise.

VIII. PLANNING & IMPACT

The success rate for implementing not just MRP and ERP systems but all large software packages has never been very good. In survey after survey, in the USA, Europe and elsewhere, less than one third meet the basic criteria set out at the start of the implementation. Too many software engineers know how the software works but do not know how to integrate it into the business in a way that delivers real business benefits. With enterprise resource planning (ERP) packages costing hundreds of thousands, many costing millions, this failure rate is frightening.

The question is - how can you minimise the chance of failure or, more difficult, rescue a package that is not delivering sufficient business benefits to justify the cost of implementation? The good news is that, when properly implemented, an ERP package can be the most cost effective project a company has ever seen.

ERP failure cannot be tolerated by organizations as it involves great money. On the contrary ERP success makes great money. Selecting a new ERP system can be time-consuming and risky — but with the right strategy and tools, the selection can be turned into a positive change. Here are some steps to help identify the best solution for a company. The following elements acting in combination or individually results in good planning and choosing the best possible ERP solution:

ERP implementation can positively affect the process capital of a company: process capital can positively affect customer capital and customer capital ultimately affects business performance. Companies implementing ERP can build process capital to meet the challenges of the competitive market environment.

ERP'S impact on its stakeholders: Impact of ERP on the role of managers or organization or stakeholders can be best studied and understood if the subject is analyzed right from the implementation stage. Nevertheless it has a strong influence on the business process itself as soon as it is gripped and decides major issues for employees, customers and other stakeholders. It is better to analyze it in this context rather than debating on "How will ERP impact the accounting Profession?"

Impact during the Implementation Process: ERP has a significant impact right from the time it is conceived in the organization. Firstly it facilitates the members in the organization to arrive at a consensus though after a detailed and deliberate discussion. It paves way for restructuring which would not have otherwise happened in organizations sticking to traditional and conventional values. ERP is an eye-opener for such organizations because they get to realize the nuances and edge involved in modifying the business process. This would not have happened but for the intervention of ERP. Organizations disclose vital information in the public domain which was otherwise considered confidential and not meant for dissemination. All this happens in the implementation process as this is the time the seeds sown (FOR ERP Intervention) gets shaped in this phase. Nevertheless the impact of ERP on managers is noteworthy.

Impact on Departments: It brings about interactions and tends to nurture healthy relationships among departments in organizations which would have otherwise remained isolated. The problems of coordinations faced by each department are made known to the company. They can arrive at a better means of doing things on such group discussions. It is therefore necessary to study the impact of ERP on all departments rather than restrict it to issues like "How will ERP impact the accounting profession?"

Impact on the organization as a whole: The ERP consultant will be able to identify the flaws and guide the organization in devising better procedures. It helps organizations to adapt and adjust to change right from the implementation process.

Impact on Employment: It throws job opportunities to many individuals, whom the organizations hire at the implementation process. They even realize the need to retain them on permanent rolls once ERP goes full-fledged in the organization. The good news is that it gives another room of employment for the existing IT professionals in the country. They were able to update themselves on ERP modules and continue serving the organization in terms of enhancing user interface with ERP applications.

Impact on the nature of Job and information access: ERP has directly and indirectly helped to redefine functions in the organization. Anything that people

wanted to know about the company was available by a click of the mouse. There was no more relying on the department of internal communications even for single information. Outsiders don't have the hassle of obtaining permission and following stringent procedures to access information. IT has helped vastly and so it is not necessary to ask exclusive questions like "How will ERP impact the accounting Profession"?

Impact on the individual employees: ERP provided more freedom, authority and responsibility to the individual employees which were mutually beneficial to the management. Each employee became more aware of his/her function while ERP has given the confidence to execute it individually and successfully. Above all it resulted in transparency and accountability. The tasks of employees became totally independent as ERP succeeded in doing away the need of exclusive interdepartmental dependence in order to elicit information. This has resulted in easing the process of handling and answering customer queries and undertaking clientele orders.

Conclusion: A one phrase explanation for the impact of ERP would be "Simplifying Complex Process". One has to have an idea of the above issues which will help in understanding the impact of ERP on the role of managers.

IX. REASONS & BENEFITS

Many people say that ERP is the future, that it is completely necessary nowadays. The following are the reasons to implement an ERP software system in an organization.

Enhance productivity, flexibility and customer responsiveness: From quote to cash, an integrated business system helps you get product out the door faster. ERP gives you the tools to maximize the efficiency of business processes across the entire enterprise. Forecast demand to suppliers. Increase on-time delivery. Automate the shop floor. Decrease lead times. Increase order capacity. Make commitments you know you can keep.

Enable new business and growth strategies: Undertaking new business strategies requires an infrastructure that can handle the demands of an industry that is increasingly dependent on technology. Updating and integrating your business processes with an enterprise system enables you to take on more business and grow in new directions. Connect multiple plants. Take advantage of the Internet and wireless technology to connect to customers and partners. Introduce new product lines. Mobilize your sales force.

Eliminate costs and inefficiencies: Using an enterprise system to standardize your business processes can dramatically improve your company's bottom line. Better resource management results in more inventory turns. Management of your vendor relationships reduces costs for purchased items. More efficient scheduling on the shop floor reduces downtime and overtime. Improved customer service leads to repeat business.

Expand your knowledge of key business data : An ERP system integrates all business management functions, eliminating contradictory information from disparate systems. Reports, graphs and charts on key business data can be automatically generated to provide a higher level of business performance visibility, with the drill-down capability into details behind the data that you've always dreamed of.

Extend your business using the Internet: Taking your business onto the Internet can give your company a competitive edge. Web-enabled technology allows you to access information, sell product, run business processes, and communicate with your customers and partners at any time and from anywhere in the world.

Help reduce operating costs: ERP software attempts to integrate business processes across departments onto a single enterprise-wide information system. The major benefits of ERP are improved coordination across functional departments and increased efficiencies of doing business. The immediate benefit from implementing ERP systems we can expect is reduced operating costs, such as lower inventory control cost, lower production costs, lower marketing costs and lower help desk support costs.

Facilitate Day-to-Day Management: ERP programs are being developed and updated all the time. With so many different types on the market, companies should make sure they do due diligence and try out different packages before choosing one to use. Some of the programs even offer mobile capabilities so that you can always have a finger on the pulse of your business activities from your pda. With real time capabilities and the ability to be able to see what is going on with your company as it happens, ERP systems are handy when you deal with high volume. With an ERP system, your company will never have inventory shortages or wasted time spent transferring files. You can test out an ERP system before buying it and see how it will work with your business.

Support Strategic Planning: Strategic Planning is "a deliberate set of steps that assess needs and resources; define a target audience and a set of goals and objectives; plan and design coordinated strategies with evidence of success; logically connect these strategies to needs, assets, and desired outcomes; and measure and evaluate the process and outcomes." Part of ERP software systems is designed to support resource planning portion of strategic planning. In reality, resource planning has been the weakest link in ERP practice due to the complexity of strategic planning and lack of adequate integration with Decision Support Systems (DSS).

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