



An Overview of Implementation of Enterprise Resource Planning

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ABSTRACT

Enterprise resource planning is business process management (BPM) software that consent to an organization to bring into play a system of incorporated applications to deal with the business and computerize countless back office tasks interconnected to services, technology and human resources. ERP software assimilates all aspects/facets of an operation or action, comprising product arrangement, manufacturing, growth, sales and promotion. Evolution in information technology, expansion of the Internet and electronic business as well as an ever-growing worldwide antagonism or rivalry has made running a prosperous business more fiddly than ever before. At present, a trendy approach to the expansion of an incorporated enterprise-wide system is the implementation/execution of an Enterprise Resource Planning system. Enterprise Resource Planning is up-to-the-minute and the mainly efficient programming tool for the entire enterprise resources and has a special look in the direction of all actions of the companies/organization and seize them from the task-oriented look/glance to process-oriented rank or position. At the moment the implementation/execution of this system is gambling with many dilemmas in the world. In this paper, we confer the issues that grounds or gives birth to the calamities in organizations Information systems, challenges of ERP implementation.

Keywords

ERP Implementation, Challenges, Failure Factors

1. INTRODUCTION

Enterprise resource planning (ERP) systems are one of the largest and most important areas of information systems implementation in organizations is. Because ERP is the key businesses that facilitate the associations to achieve a viable pro/benefit by putting together all business procedures, processes, practices running and optimizing the possessions/resources on hand as described in [1][2]. [3][1] classify an Enterprise Resource Planning system as a profitable and configurable software package that administers and incorporates of all the information flowing or going all the way through functional and serviceable spots or regions in the concern organization i.e. supply chain and customer information, sales and distribution, financial, accounting, production planning, human resources management and materials management. In this regard, [3][4] identify an Enterprise Resource Planning system as an information system consisting of software hold up module/components/units where information is flowing/running among them and they share or allocates a central database. And some of these specific modules/units comprise utilities for production and inventory control, field service, product design and development, procurement,

process design and development, marketing and sales, manufacturing, human resources, quality, finance and accounting, information services distribution, and industrial facilities management. ERP coalesce or joins business processes/units into one particular incorporated solution. It is not just only a piece of software package but also a professional and resourceful approach of carrying out your business. ERP doesn't only automate the organization's business process/modules; but it lends a hand for the organization to re-engineer or re-organize its business process to accomplish its long term triumph. ERP endows with numerous pros/benefits such as enhanced process flow, superior data scrutiny, abridged/reduced or condensed inventories, enhanced enterprise performance and superior efficiency and improved customer service,. All of these advantages are a magnet for organizations to implement ERP systems to strappingly go into the bloodthirsty market [3][2][4][1]. Various ERP implementation/execution projects pulled off restricted achievement and the failure or disappointment rate is towering between 60% and 90% as researches [3][5] brought into being. [3] submitted that typically the towering or elevated failure rate/tempo of ERP implementation approach from the diversity in concentration or awareness among consumer organizations that endeavor to grant the most favorable solutions for business dilemmas and Enterprise Resource Planning vendors who like better a basic solution or way out appropriate to a broader market. Also, numerous investigations such as [1][5] pointed out that the foremost cause for failure or breakdown of ERP systems was the resistance/confrontation of customers to transform/change/modify or non-acceptance of novel or fresh systems. Since the antagonism or struggle/contest among the organizations and the companies to present their products goes to globalized path, they at present are to acquire part in the worldwide markets. One of the information technology and communication tools that take part in significant role in the information structure in the organizations and the one which is the fundamental step in taking part in worldwide markets is the ERP. The system comprises an all-inclusive information, engineering and management system which meets or assembles all requirements of the organization all the way through process point of view to reach the organization needs.

At the moment, 70% of the organizations and the companies all over Europe and America, are capable to utilize the most imperative information technology and communication tools like ERP systems in dissimilar stages of providing the resources and production, marketing, distribution and the guarantee services all at once or individually in a wide area or virtual offices. The outlays and the time required for ERP implementation/execution are very high and it also directs to dilemmas and challenges/tests in numerous parts of



organizations with basic changes or modifications in process and if the organizations don't forfeit/pay the required concentration to them, many barriers will disembark onward the implementation/execution of the Enterprise Resource Planning which will conclude in the breakdown of the implementation. Due to deficiency of official researches regarding this subject 'If we scrutinize the last decade trials associated to the ERP systems implementing in Iran industry, we can identify the crisis of implementation/execution of Enterprise Resource Planning and come across innovative true ways or methods for its implementation.

2. ERP CHALLENGES DURING IMPLEMENTATION

There are different types of challenges have been facing by the concerns organizations while implementing an ERP System. These challenges are mostly just because of the size of system and in particular its overall or entire upshot/outcomes on the concern company's business processes. As far as Enterprise Resource Planning System features are concern so it provides real-time incorporated data and information to all the units/modules of an organization/association all the way through one solitary application. Earlier arrangement for ERP Application development is very vital to prevail over the challenges or hinders confronted by this centralized application. Enterprise Resource Planning implementation provokes different problems and challenges among which economic returns and value creation are some of the decisive or serious ones. In spite of manifold powerful benefits offered by the implementation of ERP System, these issues and challenges assume particular importance within SME organizations. Enterprise Resource Planning problems and challenges are very decisive to comprehend before or prior to its planning, development and integration/incorporation with other applications. Perfect and victorious implementation ERP is of huge importance or else the number of challenges face by Enterprise Resource Planning will be a shining spot as compared to its advantages. Following are the Challenges you should be aware of when implementing an ERP System:

2.1 An incorporation of ERP Modules

Enterprise Resource Planning system comprises with various functional modules/units and the incorporation of ERP modules may possibly be either the integration of modules from manifold vendors, or could be either from the diverse versions of the modules/units from the identical vendor. Integration with other e-business software such as Business Intelligence (BI), Customer Relationship Management (CRM), Information Management Systems (IMS), Supply Chain Management (SCM) and more are the other challenging factors of ERP implementation. Furthermore, integration of ERP systems with legacy or inherited systems is much trickier as compared to the integration of Enterprise Resource Planning modules/units and integration of e-business applications. As third-party interface software installation is needed to transfer the data between legacy systems and ERP systems.

2.2 Past Implementations Experiences Failure Fear

Several companies refused to go along with ERP implementation after hearing about disastrous and letdown stories of organizations that have stabbed or tried to implement an ERP System. This is the reason that it is still

more decisive or serious to opt the right or correct ERP system for your particular industry and with an ERP vendor who has a victorious track record and retention rate with other enterprises just like yours.

2.3 Competitive benefit deficiency

As far as the competitive benefit is concern so it is not guaranteed or confirmed by an ERP implementation. The foremost concern is to guarantee that Enterprise Resource Planning would produce optimistic results and return on investment. For that reason comprehensive analysis of systems, objectives, software vendors, goals and expected returns is mandatory.

2.4 Draining of time and costly

Implementation:

Ample or enough time and endeavor requirements to be place in into an Enterprise Resource Planning implementation/execution before it truly initiates producing result. ERP outlay structure types/categories:

- Investigation or Analysis
- Designing system and customization
- Implementation or Execution
- Working out or Training cost
- Upholding or Maintenance
- Support cost

Usually, the implementation/execution and support costs are not considered appropriately due to which corporations have to slash or cut back on ERP maintenance services and supports.

2.5 Resistance and Constraints to switch or change to ERP

Here the most imperative concern is to spot out what system is capable and not capable. A test run of ERP software is very essential to identify constraints and errors associated with the application. Furthermore, the major challenge associated with ERP adoption is the organizational cultural resistance. To persuade business units of an organization to switch from already running business processes to an ERP system is not an easy task. Generally in these situations the two most important fears/threats are substituting identified processes with an unidentified and taking away decision-making authority for the routine business actions. If the benefits or advantages of ERP systems are not elucidated well enough, the employees will be able to oppose and decelerate the development/expansion and adaptation process of the Enterprise Resource Planning system.

2.6 Partial or full fledged ERP

The biggest challenge faced by many organizations is to implement ERP full fledged or modified an already existing one. Different companies have different requirements so therefore it is not worthwhile to opt full fledged implementation unless it is very necessary or either in organization best interest. Customized or Partial ERP specifies implementation/execution of ERP to carry out only discriminating/choosy functionalities and tasks. ERP is a flexible/supple application yet the most important challenge is to put in only need based functions.



2.7 Rigidity & Complication

[6] An execution/Implementation of Enterprise Resource Planning can be so difficult or complex and a handy task to grip on. The hunt has to initiate from looking for Enterprise Resource Planning software that will meet the goal of our company. Once the explore for the right kind of software is ended, chain or series of experiments will have to be conceded on the chosen software for likely weakness. Some times, you in fact can't bend/twist/supple the software to transform to any most up-to-date development unless or except the software vendor do that for your business or organization

2.8 Configuration complexity:

[6] The configuration of software's and consequently making them in reality practical to the business is an characteristic or feature of ERP implementation/execution that no business/organization manager is ever eager to face or confront. For a second time, getting the staff members to find out how the ERP software's are typically challenging and complex.

2.9 Is not custom-ly developed?

You don't have the chance of telling your developer that what you actually desire to be incorporated or included in the software. Your corporation may possibly have a peculiar or unusual/odd requirements that possibly will demand that the software be squeezed or tweaked, but, will not have the chance of doing so.

3. IMPLEMENATAION CHALLENGES OF ERP IN GOVERNMENT ORGANIZATIONS:

If we glance at ERP so its implementations are always tricky job to sort out, and carrying out is not more than that of finishing a marathon. Several by no means make it, and lots of of those who do finish are miles behind the winners. As far as the government Agencies are concern, so all of this intricacy or complexity is compounded by the exclusive characteristics or aspects of organizations in the public sector. Effectively implementing/executing an Enterprise Resource Planning system such as Microsoft Dynamics GP in a government organization/agency requires or entails a big deal of planning. The momentous and considerable problems with ERP implementation are all what we can say are cause of three key areas of government organizations:

3.1 Modification Conflict

In these times of budget and salary cuts, it can be thorny to encourage employees to gain knowledge of a new system when their old system 'worked just fine'. Oftentimes, government employees have been strained to put up sole and exceptionally intricate or difficult workarounds that they have become or befall at ease or comfy with. Asking them to dump or leave their routines for something that would apparently formulate their lives easier is a grueling or demanding task.

3.2 Communication Fence/Hurdle

Government agencies frequently maneuver autonomously of one another. In order to implement/execute a system to wrap/cover several departments within an organization, you ought to carry on the lines of communication unbolt/open. Implementing/executing an Enterprise Resource Planning system in any organization entails individuals to stay or hang on the similar page. Given the size of some agencies,

therefore constructing patent and obvious objectives or goals and a comprehensive plan from the beginning is particularly imperative.

3.3 Intricacy or Complication

Organizational charts oftentimes are top-heavy with manifold high-level administrators all calling the shots in the public sector. In addition, you possibly will have to also deal with the concerns/matters of external/outdoor stakeholders, such as private donors, lobby groups, standards boards, higher-level government agencies and private taxpayers. You ought to have a brawny and strapping/strong platform to call for the change/alter and investment for implementing an Enterprise Resource Planning system in such a complex or thorny environment with lots of voices frequently speaking to diverse subjects and with unstable concerns. You possibly will have to persuade many different groups that your plan is valuable and will happen as expected. Not a bit of this is intended to recommend that implementing/executing a novel Enterprise Resource Planning system for a public sector organization is impracticable, moderately the contrary or opposite. When Enterprise Resource Planning systems those are aging or going to be too mature and call for substitution continues to be utilized, Decisive business intelligence is gone astray. Implementing/executing a new/fresh or novel solution is not that much simple, but u can greatly increase the chances of success with the appropriate planning and hold up [7].

4. QUESTIONS & ANSWERS REGARDING CHALLENGE OF ERP IMPLEMENTATION:

(I) Question: - Enterprise Resource Planning Systems look like an excellent initiative, so why is return on investment so squat or short?

Answer: Resistance or confrontations frequently slaughter several of these fresh systems. Still though the guarantee of what an Enterprise Resource Planning can capable of is lofty, the planners often not succeed to glance at how the users/customers are expected to analysis this 'improvement.' Enterprise Resource Planning systems get rid of the aged tried-and-true ways of working. Still though few of these paved or cobbled together systems are not good up to the mark, individuals realize them. When they are asked to give up what they make out or know and what they can rely on, you habitually catch resistance to utilizing a new and novel software system. ERPs also intimidate the delicate stability of power and control. The old or mature system permits departments and few individuals to manage the kind of information that gets out -and manage the approach data get distributed. The new or novel system demolishes all of that and that can be aggressive.

Millions has spent by one manufacturing plant on an Enterprise Resource Planning, and kept lobbying money at the technical parts of project, with no victory. What they botched to observe was that the technical dilemmas they faced or confronted were slight compared to the human response against these modifications or changes.

(II) Question: - What are the major drawbacks when setting up an Enterprise Resource Planning?

Answer: As far as the major drawbacks are concern so by far is assuming that Enterprise Resource Planning implementation/execution is exclusively a financial & technical challenge or defy. The human side of change is the



most neglected or mistreated, and as a result most probable to result in time & cost overruns, or breakdown to meet the anticipated objectives.

(III) Question: - How can we maximize the chances in our favor?

Answer: Plan or Preparation for the human part of the Enterprise Resource Planning. We have three most important causes that why individuals oppose a change or modification. They do not get a hold it [Cause 1], they do not be fond of it [Cause 2], or they do not reminiscent or like of you [Cause 3]. Any one among those can discontinue the Enterprise Resource Planning lifeless in its trails. And what you require is the confliction of all these three: individuals need to acquire what it's all about, they have to like it and be enthusiastic to seize or get part in making sure it is a victory, and they need to have confidence and poise in you. Make strategy that tells to individuals in their own language to assist them realize why these modifications are serious and decisive to your organization or business. Pay out a lot of time building the case for the change before you get into the often mind-numbing details of the ERP process itself. This concentration to Cause 1 is crucial but not enough for victory. You have to concentrate the other two levels as well. If inhabitants react or retort against the change/modification, discover it why. It is typically terror. In a few cases people are frightened that the new/novel Enterprise Resource Planning will charge them their job. So then why would they support it in that case? You have to find ways to connect people to assist you address the downside of the change. Let say, if people are frightened that the new/novel system will not let them to modify or tailor and be as approachable to customers, encourage them into the development to guarantee that the new/novel system endows with the characteristics they require. And if they do not have poise in you or your team (Cause 3), you have to do all you can do demonstrate that you are commendable of their faith. This most likely will not come about over night. It's not about just one meeting. You have to demonstrate and attest yourself time and time again. No, it's not easy, and functioning on Cause 3 issues/problems can be grueling, but it may possibly be the merely game in town if you truly wish for people/individual to build a dedication and pledge to you and the new/novel system. Then we must say Good luck and wish u all the best.

5. STEPS BEFORE IMPLEMENTING ERP

You have to identify the challenges/defy that implementing or executing an Enterprise Resource Planning system into your organization/business can bring, before going towards to an ERP software solution and a vendor. The key is to draw from the nearly all advantages and diminish the hazards of project breakdown. Delivering tangible business paybacks or advantages: productivity improvement, cost reduction, and measurable bottomline results are the main objectives of the ERP software. As TMC's [News - Alert] Tracey Schelmetic mentioned, odds are, if you have worked for a huge corporation at any tip or stage in your career, you have seen an enterprise software project go off the rails: as in, poorly chosen, over-scope, over-budget, poorly implemented/executed and a massive dissipation of everyone's time. Whether it was a new/fresh client/customer relationship management (CRM) project, a new payroll project, new/novel database system, or a new bit or portion of contact center software, these "tick or vampire" projects are all about

sucking the money out of a company's budget and also sucking the life out of its recruits souls or essences. Michael Krigsman, president and Chief Executive Officer of Asuret, a consulting firm concentrating on serving companies/businesses advance the result and upshot of IT projects, enlightened PC Magazine that he wish to bring into play the more threatening metaphor/symbol/image of 'the Devil's Triangle' to illustrate the three-fold factors or aspects – vendors, consumers, and implementation/executing teams – in big, tricky implementations/executions. He also spoke up the magazine he witnesses no rapid and trouble-free answer/solution. "There is no magic bullet," noted Krigsman. "The magic bullet is to alter human character, to construct us astute/intelligent and all-seeing." So be realistic and implement/execute the following checklist before implementing an Enterprise Resource Planning system and software solution.

- i Identify your business objectives or goals
- ii Classify infrastructure
- iii Opt for an Enterprise Resource Planning vendor/seller
- iv Commence a project management scaffold/framework/structure
- v Build the implementation/execution agenda
- vi Hire the development team and support staff
- vii Administer the implementation/execution if a modular solution
- viii Test or check the ERP system
- ix Educate staff to utilize the application
- x Hire maintenance personnel/staffs and ongoing or enduring support staff
- xi Carry out a methodical and an efficient evaluation

It is not an easy task to choose a vendor for this demanding and tricky plan or idea. With open source applications, businesses or organizations generate good revenue by normally doing away with vendor power, which turns out to be too expensive. It is this desire to shatter free from vendor lock-in, which directed several enterprises to shift to an open source. Now the question is, if a vendor is sentient or aware of this can it does something differently or amazing, to make or fashion Enterprise Resource Planning more cost effective? [8]

6. CONCLUSION

Since every adaptation implementation/execution to a novel Enterprise Resource Planning system ought to be deliberated in steps with deep or profound drill-down detail, definitions for overlying sub-projects with unlike go live dates can effortlessly be added. Additional exertion or work will be required to classify and create/modify impermanent procedures or measures and subsystem interfaces. The amount of work required for each feasible provisional interface can be judged against to the advantages of focusing on one area at a time. Slighter victories permit quicker exploitation. The Learn-as-you-go moves toward acknowledge that there will be blunders, which can be recognized and abolished from following sub-projects. IT holds up for on hand systems can be farmed out so that the IT staff/employees can spotlight on training and creating methods and procedures for utilize with the new/novel system. Individual "Operational support" such as care of modems, printers, and tapes for backup from



"Functional IT support" such as batch processing monitoring, DBA tasks, security, etc. Enterprise Resource Planning implementation/execution takes supportive teamwork among top corporate administration, IT management/support users, software vendors, and such specialists in the exercise of these intricate systems as autonomous consultants and trainers. Eventually, though, Enterprise Resource Planning implementation/execution has to be user driven for business purposes/basis. Customization and interfacing are decisive, because systems integration/incorporation is where the actual paybacks are originated. For the cause that it depends so heavily on precision, customer possession of the Enterprise Resource Planning system is still the most imperative aspect. Without repeatable, verified processes for sustaining data superiority, all of the magnificent fresh metrics for enhanced business verdicts derived from improved Enterprise Resource Planning systems are insincere or worthless.

7. REFERENCES

- [1] Jing, R., & Qiu, X.(2007). A Study on Critical Success Factors in ERP Systems Implementation. IEEE International Conference on Service Systems and Service Management.
- [2] Noudoostbeni, A., Yasin, N.M., & Jenatabadi, H.S.,(2009). To investigate the Success and Failure Factors of ERP implementation within Malaysian Small and Medium Enterprises. Information Management and Engineering, 157-160.
- [3] Xia, L., Yu, W., Lim, R., & Hock, L. (2010). A Methodology for Successful Implementation of ERP in Smaller Companies, Service Operations and Logistics and Informatics (SOLI). 380 – 385.
- [4] Upadhyay, P. & Dan, P. (2008). An explorative study to identify the Critical Success Factors for ERP implementation in Indian small and medium scale enterprises . IEEE International Conference on Information Technology.
- [5] Al-Shamlan, H. M., & Al-Mudimigh, A. S. (2011). The Chang Management Strategies and Processes for Successful ERP Implementation: A Case Study of MADAR. International Journal of Computer Science, 8, 431-435.
- [6] <http://chinweike.hubpages.com/hub/some-challenges-of-ERP-before-during-and-after-implementation>
- [7] <http://www.erpssoftwareblog.com/2011/10/the-challenges-of-implementing-erp-in-government-organizations/>
- [8] <http://www.tmcnet.com/channels/erp-software/articles/140948-facing-challenges-implement-erp-system-with-right-steps.htm>