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Project Management, A Solution for ERP Failures

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Abstract_ *Enterprise resource planning (ERP) implementation solves business problems. Effective, efficient implementations can bring a customer millions of dollars in returns, improve implementation consultancies' profit margins. The study reported in this paper aims to identify, assess and suggest improvements to ERP implementations and post implementation shortcomings. The study also indicates a strong need for change in the management structure provided by vendors in order to successfully implement the ERP system. In contrast change management techniques applied are more crucial to potential ERP failures and can have long term implications for the success of ERP.*

Keywords –ERP,failure,Project management,Human aspect,cost,stakeholder,flexibility,scalability

I. INTRODUCTION

ERP is huge, complex and expensive enterprise system that provide integrated, real time environment. ERP originated as an extension of material requirements planning and computer integrated manufacturing. However, not all ERP implementations have been successful.

An enterprise resource planning or ERP system is an information backbone and reaches into all areas of the business and value-chain. It is a set of applications with a structured approach to optimizing an organization's internal and external value chain. According to a study by the ARC Advisory Group ERP systems have become very important in modern business operations and ERP market is expected to recover from the sharp downturn in 2000 and 2001 and grow to $9.5 billion by 2006. The studied [5] come out same as what all researchers studied the most important and the goodness of ERP. So that, we believe that ERP is an integrate all data and processes in organization into a unified system (database) consist of more modules, such as marketing, inventory control, production, procurement, distribution, human resource and accounting[2].

Despite the popularity of ERP, the failure rate of ERP implementation remains high. According to a survey of 117 organizations conducted by the Conference Board, 40% of ERP projects failed to meet the business case. This result is corroborated by another study done by information technology (IT) management consultancy Robbins-Gioia LLC, which found that 51% of companies across a wide range of industries stated that their ERP implementations were unsuccessful. Thus, it is critical for executives and managers to fully understand and manage project management issues so that effective approaches can be devised to address project management problems [1].

The issues of ERP implementation have been given much attention due to its high failure rate. This paper attempt to find the real answer to problems faced in ERP implementation and what really makes an ERP implementation successful.

II. IMPLIMENTION PHASE AND IMPORTANT DISCIPLINES

Four main phases of ERP implementation are planning, pre implementation phase, implementation and post implementation phase[3].

In the first phase, business processes are studied and the company tries to find the link point between various processes. The objectives of the processes are designed and the exceptions of the clients are finalized. The next sub phase is Analysis of needs, the

stakeholder tries to understand the benefit of the new system .Gap analysis provides the points of differences between the requirements of the company and the Standard capabilities of the new system [3].Identifying and creating crucial data was done as the company prepares to move the database to the new system. At the next stage implementation team is define and allocating tasks are designed. Infrastructure is prepared and client ensures that the infrastructure and hardware is ready to install the new software.

During the implementation phase the software is implemented and client ensures everything is working properly.

In the testing phase, software is tested for integration, scalability and robustness with the new data transfer requires regular careful handling and frequent testing as the report and the further work will be based on this phase.

In the post implementation phase training users and documenting are done repeatedly to ensure the software does not case error in any condition [3].The EUP includes seven enterprise management disciplines that tackle the cross-system issues:

- Enterprise Business Modeling.
- Portfolio Management.
- Enterprise Architecture.
- Strategic Reuse.
- People Management.
- Enterprise Administration.
- Software Process Improvement [7].

III. PROJECT MANAGEMENT FRAMEWORK AND AREAS

Project management is application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project. Meeting or exceeding stakeholder needs and expectation invariably involves balancing competing demand among:

- Scope, time, cost, and quality.
- Stakeholder with different need and expectations.
- Identified requirement and unidentified requirements [3].

The term project management is used to describe an organizational approach to the management of ongoing operations.

The project management frame work provides a basic structure for understanding project management.

- Introduction defines key term and provides an overview of the rest of document.
- The project management context, describes the environment in which project operate.
- Project management process, describes a generalize view of how the various project management processes commonly interact.

The project management areas describe project management knowledge and practice in term of its component processes. The processes have been into nine knowledge areas as described integration, scope, time, cost, quality, human resource management, communication, risk, procurement.

Although project management includes supporting disciplines such as computer programming and overlap general management, but it has organizational behavior to provide a more detailed discussion of general management.Fig.1 shows relationship of project management to general or application management area.

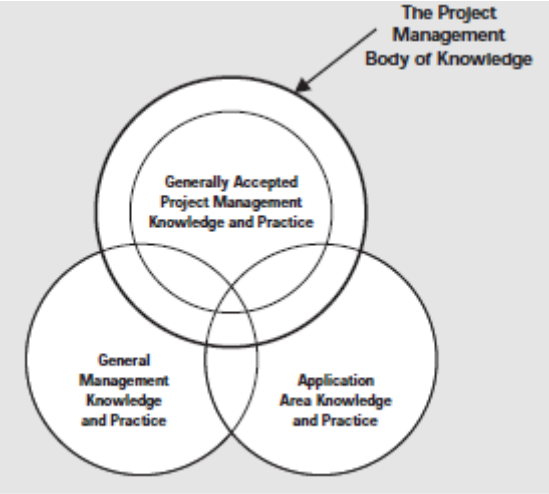

Figure1-relationship of project management to other management disciplines.

Software engineering in many cases doesn't start from scratch but integrates existing frameworks and modules or is based on a comprehensive code base. We argue that software engineering must take on that challenge [9].

IV. CHALLENGE

A project, large or small, IT or None IT has Constraint of three gold factors: Scheduling, quality, cost. If these factors balanced, the project is successful.

Projects involve doing something which has not been done before and which is therefore, unique [8].A project may be unique but there are common reasons to

failure. Because each project is unique, management processing of project characteristics must be carefully coordinated with proper project scope definition, particularly if the project is performed under contract. Our objective was to understand the characteristics and challenges of ERP implementation to guide the developer. Consultants frequently seek to reuse solutions in new contexts. The challenge is to retrieve relevant solutions.

When the same software package is implemented at many sites, case-based reasoning can significantly improve quality; reduce costs, and lower design risks.

However, a case-based approach can be only as good as the cases' knowledge base. The main challenge of utilizing the case-based approach is the lack of support for building and growing the knowledge base.

A key challenge is finding an existing solution, which is half the success. [4]

A. Unreal ,conflict expectation of stakeholder

The project management team must identify the stakeholders, determine what their needs and their expectations, and then manage and influence those expectations to ensure a successful project. Key stakeholder on every project includes:

project management, customer, performing organization, sponsor[8].In addition to these there are many different names and categories of project stakeholders-internal and external, owners and funders, suppliers and contractors, team members and their families, government agencies and media outlets, individual citizens, temporary or permanent lobbying organization, and society at large.

Managing stakeholder expectation may be difficult because stakeholders often have very different objectives that may come into conflict [8].In general, differences between or among stakeholders should be resolved in favor of customer.

Communication planning involves determining the information and communications need of the stakeholders: who need what information, when they will need it, and how will it be given to them. While all project share the need to communicate project information, the informational needs of the stakeholders and determining a suitable means of meeting those needs is an important factor for project success.

Project Communication Management includes the processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. It provides the critical links among people, ideas, and information that necessary for success. Everyone involved in project must be prepared to send and receive communications in the project language and must be understand how the communication they are involved in as individuals affect the project as a whole [8]. Major process of communication management is:

- Planning, determining the information and communication needs of the stakeholder, who needs what information, when will they need it, and how will it be given to them.
- Making needed information available to project stakeholders in timely manner.
- Performance reporting means collecting and disseminating reports, progress measurement, and forecasting.
- For project completion, generating, gathering, and disseminating information [8].

B. COMPUTING WRONG COST

Nowadays, ERP are continuously growing up and most companies use these system for make it their management going with no much trouble but more effortlessly and efficiencies. Although in recent years most ERP system suppliers have increased their focus on SMEs, but the current ERP systems are still expensive [6]. In a study done by Meta Group, surveyed by 63 companies including of small, medium and large enterprise in a range of industries, it was found that the average cost of implementation of ERP system was $15 million, with minimum at $400 thousand and maximum at $300 million [10].

The worst cases of failures are reported when a company buying the software underestimates the total costs of implementation and buyers are not ready to pay for the new extensions. Taking short cuts to reduce effort and cost can damage the system.

Project cost management includes the processes required to ensure that the project is completed within the approved budget. It provides following major processes: resource planning, cost estimating, cost budgeting, and cost control. These processes interact with each other and with the processes in the other

Knowledge areas as well, each process may involve effort from one or individuals or groups based on the need of the project, each process generally occurs at least once in every project phase.

C. CHANGE PROJECT SCOPE

Last minute change is one of failure reason. Sometimes the business processes are very complex and it cannot be integrated in software in the way it is practiced by company-changes in last minute and disagreements over the changes can cause failure [3].

Scope management is the solution. This area includes the processes required to ensure that the project

include all the work required, and only the work required, to complete operation successfully. It is primarily concerned with defining and controlling what is or is not included in the project. In the scope planning phase, has developed a written scope statement as the basis for future project decisions. In scope verification formalize acceptance of the project scope and there is change control process generally at least once in every project phase.[8]

D. HUMAN ASPECT

Human aspects play a critical role in ERP implementation. As Dittrich and her colleagues point out, ERP implementation quality depends largely on how the implementation personnel's knowledge and past experiences are reused and communicated [5].Although knowledge reuse, collaboration, and communication are important for all software projects, they're particularly critical in ERP implementation owing to its unique challenges [4].

The team working should have proper communication with the user to ensure that every minute detail is provided to them because for very minute issues the process can come to an end [3].Identifying, documenting, and assigned project roles, responsibilities, and reporting relationships is the processes required to make the most effective use of the people involve with the project. It include all the stakeholders to getting the human resource needed assigned to and working on the project [3].

All the process mentioned is in the human resource planning project management.

E. FLEXIBILITY AND SCALABILITY

Market keeps on changing and eventually companies are pushed to adopt changes in the business process to cope up with the market needs. If ERP is unable to handle these changes it becomes impossible to work with that system which leads to its failure [3].Gap-filling rather than building from scratch, Instead of the traditional "requirement gathering ".design - implementation" paradigm, ERP implementation typically involves "matching requirement to existing solution - gap analysis - reengineering business process to reduce the gap, modifying existing solution to fill the gap [11].

CONCLUSION

This paper reviewed the related literature of project management and main challenge of ERP systems. An approach was introduced to integrate and support management of organization when taking decision regarding the implementation of ERP.

The lessons learned from our research, apply to ERP or packaged software communities in general. Software vendors should start building ERP by using project management process and areas, if they have not done so, they increase ERP failure.

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