



PRE-ASSESSMENT MODEL FOR ERP IMPLEMENTATION

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ABSTRACT

ERP systems are capable of providing significant return on investment. Implementing these projects place tremendous demand on organization's time and resource. Unfortunately the success rate of ERP implementations is limited. Much has been written about implementation and critical success factors (CSF) but there is little effort to predict the success before starting of the implementation. The present study focuses on developing a pre-assessment model which can predict the time frame on which the project is expected to complete. It uses previous research on user acceptance models for IS to understand the success of ERP systems adaptation and developed a new ERP success model based on key players associated in the implementation. It uses case study methodology; eight cases were studied to derive the model, four successful & four unsuccessful implementations of a same Project manager.

Keywords: Assessment, Critical Success Factors, Enterprise Resource Planning, Implementation time frame.

I. INTRODUCTION

The business environment in most industries is becoming more complex and international, which means that managing and utilizing information effectively is very important for the success of modern companies. Concentration on core competencies and outsourcing other activities are leading to wider partner and subcontractor networks and often to internationalization. Managing the whole operation throughout the network requires information systems that can integrate both external and internal information into readily available and usable forms. Many companies are using information technology solutions, such as ERP systems, to manage their business processes and to integrate all the different

operations in order to enhance information flow within the company as well as collaboration with partners, suppliers and customers. That is the case because during the latter part of 1990, firms have rushed to implement ERP. However, the ERP implementation is costly & complex. Thus, the difficulties & high failure rate in implementing ERP system have been widely cited in the IT literature [12]. Recent survey held by an US consultancy services, 2000 responses from 61 countries, collected between February 2006 to May 2012, indicate 28% of implementation finished on time & 11% completed the project sooner than expected. The consultancy said it is 'distressingly common' to see ERP projects running so late (61% of the implementations).

Generally package based projects are likely to experience delay when clients do not realize that an integrated package implementation is not an IT implementation but a business transformation enabled by IT. Such projects involve the client making important decisions about the extent to which it will either adapt its business processes to fit the package or customize the package to fit its business processes (the former is generally preferable). This means that clients must ensure following ten golden rules to avoid delay.

- Clear scope, cost & benefit
- Stakeholder support
- Clear service description
- Supplier due diligence
- Appropriate contractual documentation
- Sufficient resources
- Informed decisions
- Project management
- Contractual incentives
- Data migration

Though every project tries to adopt these golden rules, delays occur in the implementations because it involves change. Generally ERP implementation research focus on identifying the factors or variables that are critical for implementing ERP successfully. Although factor research is valuable for advancing our understanding of ERP implementation success, it adopts a rather static view, which limits its adequacy in explaining the dynamics of the implementation process. Thus, factor research alone is not adequate for explaining how the transition from resistance to success has happened.

There are risks associated with this type of investments. Most of the investors burn their fingers after entering into this exercise. Hence a pre-assessment is an absolute requirement. This research seeks to contribute to the business community for assessment of the situation before embarking themselves on the implementation project. The research aims are stated as:

- to exhibit readiness of the organisation for the change process of ERP implementation
- to evaluate the team involved in the implementation process to effect possible course correction.
- to minimize risk and save time & effort required for the implementation.

Against the backdrop of these aims are the following main objectives of this study:

- to develop an ERP system success model based on the key players of ERP project;
- to propose a framework for estimation of implementation delays & time frame of the implementation;

In achieving these objectives, the research attempts to answer the following research questions:

- How the people involved in the ERP project influence ERP project success or failure?
- Can we create a benchmark based on key players' involvement for a more accurate forecasting model of the ERP system operation of a company?
- How much delay contributed by key players associated with the ERP projects?
- How can we predict the time frame of the implementation before starting the project?

II. REVIEW OF LITERATURE

Concepts of ERP system was first introduced in 1990 [1]. Many researchers [2][3] worked on to identify key areas where things must be go right for the implementation to be successful. Those key areas are called Critical success factors (CSF). Twelve commonly accepted CSFs are identified by [4] for the success of ERP implementation project. The key players associated with ERP implementation & stake holder analysis is detailed in [5][6]. All ERP implementations goes through selection, implementation & post implementation phases and follow standard implementation methodology as per [7][8][9][10][11].

ERP implementations can turn into nightmare if it is not carefully planned, also insufficient integrations between groups, processes & latest technology prevents getting the fruit of the implementation [12]. The full potential of ERP system was not utilized in most cases, hardly 10% achieved [13]. Many projects are unsuccessful, mostly due to their complexity being under estimated [14][15]. 70% of the large scale implementation failed [16]. The fix / upgrade schedule forced by ERP vendor make many implementations become outdated. Therefore delay in implementation schedule becomes much more costly [17][18].

Hence prediction of ERP implementation success upfront is a point of concern. These predictions enable organizations to decide whether to initiate ERP, inhibit adoption or take remedial action to increase the feasibility of successful ERP. Few researches [19][20] on this area was carried out using Case based reasoning model & Artificial intelligence techniques.

IS success models detailed in [22],[23],[24] is referred because ERP implementation is also one of the Information system project..

III. THEORITICAL FRAME WORK

Since ERP systems integrate various business processes, previous research on user acceptance models for IS can be a starting point to understand the success of ERP systems adaptation. The proposed study extends ERP success model developed by [15] for construction industries which incorporates two prevalent models related to IS acceptance and integrates those with key project management principles.

- Technology acceptance model (TAM) (22)
- DeLone & McLean IS success model (23)

The success of ERP system can be classified into two categories: the success of ERP adoption and the success of ERP system implementation. For the successful ERP adoption, it used already proven user acceptance models for IS such as TAM and D & M IS success model as the starting point. The model developed the rationale for the causal relationship based on the combined theoretical backgrounds and incorporated three main dimensions for identifying the truth about the success of ERP systems: success factors, intermediate constructs, and success indicators.

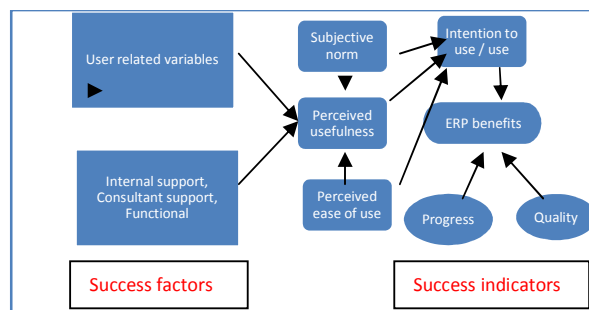


Fig 1. Reference ERP success model.

The success factors suggested by (24) are used in the model because they were already validated by previous research. This success factors directly affect the perceived usefulness, and finally lead to ERP success or failure..eg., the User related attributes directly affecting the perceived usefulness as per [15] are Output quality, Job relevance, Image, Result demonstrability, Compatibility and System reliability

The reference model success factors are broadly grouped into three stakeholder groups.

- Users
- Internal groups
- External groups

Further the study by [5] stress a point that there needs to have a focus beyond the adaption and acceptance stages of implementation to include both pre- and post- implementation behavior of key players associated in the project . The study conclude following important key players:

- Top management
- Users
- Project team
- Consultants

IV. RESEARCH METHOD

The study follows three phase approach to develop a pre-assessment model for ERP implementation. First it develops a conceptual ERP success model , then develop a frame work for estimation of delays and total implementation time based on key stake holders behavior , then validate the model with a pilot study .

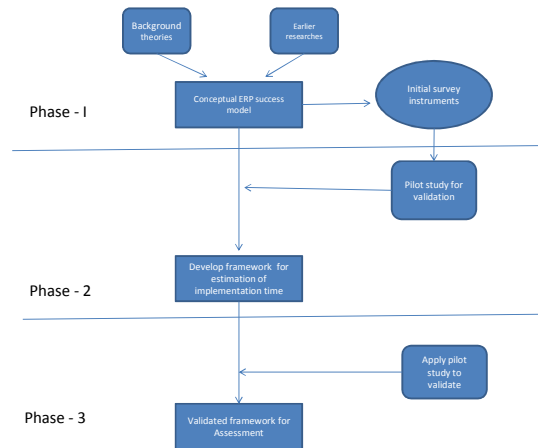


Fig.2. Three phase approach.

It uses case study methodology. Eight cases were identified, four successful and four unsuccessful implementation of the same project manager (First author of this article). The project manager has implemented ERP systems like SAP, JDEdwards Enterprise one, Oracle E-business suite and many custom software for more than 20 organizations in India and abroad. Many projects were successful and some were failure. Details of the chosen eight organizations are shown in Annexure – A. Data collected by administering a questionnaire at various levels of the subject organization.. The questionnaire is enclosed in Annexure – E.

V. RESULTS & DISCUSSION

1). Phase 1: Conceptual ERP success model:

Fig below shows the proposed model, referred to as conceptual ERP success model. This model combines the result of both the study referred above but primarily concentrates on the study of [15] and expands the stake-holder group used by that study.

Expansions of the three stakeholder group used by the study [15] are given below:

1. Users:
 - a. Transaction users
2. Internal Groups
 - a. Top management
 - b. Project team
 - c. Positional power users
 - d. Knowledge power users
3. External Groups
 - a. Vendor
 - b. Consultants

The internal group is expanded in detail to understand the behavior of influencing group affecting ERP implementation change management process. The attitude and behavior of the people are likely to depend on the power they have and their perception of the effect of change. Power is the ability to control all types of resources, such as information, people, expertise, assets, etc. Power does not rest with position. There is positional power and knowledge power. The positional power comes from official authority, the knowledge power accrued over a period by an individual through the acquirement of critical knowledge related to organizational product and processes. As ERP focus on process integrations, this knowledge power user plays a dominant role in the implementation stages like business analysis, to be process design, conference room pilot testing, data migration and post implementation.

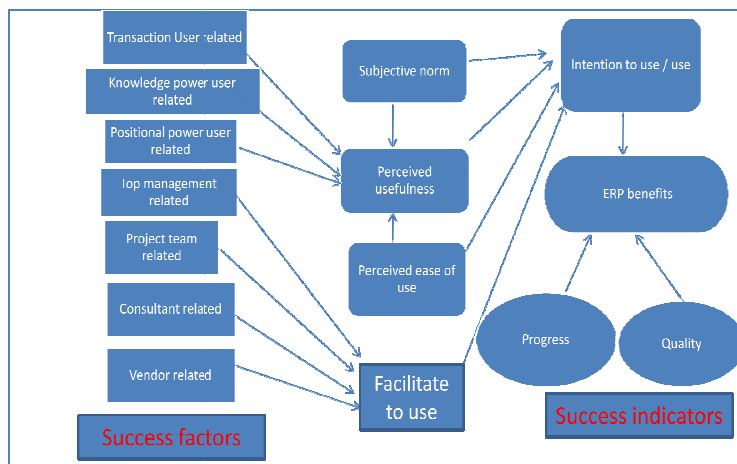


Fig.3. Conceptual ERP success model.

Each success factors contribute certain attributes which directly influence the perceived usefulness or facilitate to use and finally affect the ‘intentions to use / use’.

TABLE – I
ATTRIBUTES FOR EACH SUCCESS FACTOR

Success indicators	Attributes
Transaction user	Output quality, Job relevance, image, Result demonstrability, system reliability, willingness to learn// change.
Knowledge power user	Output quality, Job relevance, Image, Result demonstrability, System reliability, willingness to involve in design, testing, training, data migration and post implementation, act as spokes person
Positional power user	Output quality, Job relevance, Image, Result demonstrability, System reliability, willingness to involve in design, training and monitoring , act as spokes person, giving priority, assigning key resources, support project team, interdepartmental co-operation and communication
Top management	Priority, Personal involvement, assigning key resources, Funds, Empowering project team, Motivating the project team
Project team	Dedication, Image, Result demonstrability, Job relevance, Commitment to achieve, act as spokes person
Vendor	Transparency in product capability, resource capability, project management, past performance, scope , project time frame and understanding the customer requirement.. Commitment, Partnership, tools availability, post implementation support,
Consultant	Quality of output, customization, training, documentation, knowledge sharing, willingness to reach out for help

The above model got validated using the eight cases referred in Annexure-A. These seven success factors revealed accurately the success and failure implementations. Those success projects got total scores of more than 50% and failure projects scored less than 50% as shown in Annexure – B.

2). Phase 2: Develop a frame work for estimation of delays and implementation time frame. :

All ERP implementations go through following three phases. Success or failure depends on the activities carried out each of the phases.

1. Selection phase where requirement finalization, ERP selection & Vendor selection takes place.
2. Implementation phase where the activities like Business Analysis, Set up / Configuration, Conference room pilot. Customization, Production set up, Data migration, Security profile, Readiness assessment, Go live takes place.
3. Post implementation where activities like Report generations, Monthly / yearly closing, Refinement takes place.

Time frame for ERP implementation varies for different type of implementation as well as number of modules implemented. Following are the standard implementation time frame (ST) of different type of implementation (excluding selection phase) based on the experience of the first author .

1. Green field site (GF) – 7 months.
2. Roll out implementation (RO) – 10 months
3. New implementations for existing company (NEW) – 12 months
4. Pilot implementation for a group company (PILOT) – 15 months

Based on the standard norms advocated by different ERP vendors for the implementation of existing single company, effective percentage of contribution by the seven behavior factors discussed earlier was arrived at and shown in Annexure – C & summarized in Table II .

TABLE – II
PERCENTAGE OF CONTRIBUTION BY BEHAVIOUR FACTORS

Sl.no	Behavior parameters	Contribution % (BP)
1	Vendor related	15
2	Top management related	6
3	Positional power user related	17
4	Knowledge power user related	7
5	Project team related	22
6	Transaction user related	12
7	Consultant related	21

Estimation of time frame is arrived using the standard implementation time frame of different type of implementations and the delay contributed by each behavioral parameter

$$\text{Estimated time (T) = Standard Time (ST) + Standard Time (ST) * Total Delay (TD)}$$

$$\text{Total Delay (TD) = Delay due to behavior parameter 1 (D1)+Delay due to behavioral parameter 2 (D2) +.....+ Delay due to behavioral parameter 7 (D7)}$$

Where as Delay due to behavioral parameters (D) = Behaviour pattern contribution (BP) * Percentage delay (Y)

$$D=BP*Y$$

$$D1=BP1*Y1$$

$$D2=BP2*Y2$$

.....

$$D7=BP7*Y7$$

Percentage Delay (Y) = X * C, which depends on the score (S) obtained through Survey / Interview on each behavioral parameters.

TABLE III

‘X’ & ‘C’ VALUE TABLE

Score (S)	X	C
S > 5	10-S	20
S < 5	6-S	100

Hence $T = ST + ST * (\sum_{n=1}^{n=7} BP_n * X_n * C_n)$

3) Phase 3 : Validation of frame work developed in the previous phase :

Above model is applied in the eight cases discussed in this paper. Data and application of the framework is shown in Annexure – D. The estimation of time frame (prediction) is summarized in Table IV. Accuracy of prediction in the range of 85% to 97% as shown below.

TABLE – IV
PREDICTION OF IMPLEMENTATION TIME FRAME

		Actual (months)	Prediction (months)	Variation %
1	Case -1	12	11	-9
2	Case -2	15	17	12
3	Case-3	14	16	13
4	Case-4	15	17	12
5	Case-5	Stop	64	-
6	Case-6	60	56	-7
7	Case-7	36	35	-3
8	Case-8	34	40	15

VI. CONCLUSION

It is evident from the above analysis that prediction of ERP implementation success is possible through the seven behavior parameters of people involved in the project. All these seven parameters can be measured up front before starting the project. The study provides the business community following advantages:

- Exhibits the readiness of the organization for this change
- Pinpoints possible course correction required for the success of the implementation
- Reduce risk
- Save huge implementation cost

Annexure –A

Case no.	Company	Status
1	(A Glass manufacturing company in India) SAP implementation in six month	Successful
2	(A construction group with 9 companies in Saudi Arabia). JDEdwards Enterprise one implementation for one company in six months)	Successful
3	(A medical equipment sales & service organization in Saudi Arabia), JDEdwards Enterprise one implementation in six months)	Successful
4	(A construction company in India), JDEdwards Enterprise one imp. in six months)	Successful
5	(Group with more than 50 Higher sec.schools in Dubai), Custom developed ERP implementation , More than 15 months impl., project stopped	Failure
6	(An IT services organization in India), Tried JDEdwards implementation for 4 years failed, then started Oracle E-business suite implementation for one year	Failure
7	(A polymer products manufacturing company in India), JDEdwards Enterprise one implementation. Went live in 12 months, implementation team left immediately, Localization module not stabilized, went for re-implementation after six months.	Failure
8	(A needle manufacturing company in India), JDEdwards Enterprise one implementation , Gone live in 15 months, system crashed, re-implementation started after six months)	Failure

Annexure –B

MASTER DATA SHEET FOR THE PILOT STUDY ON THE RESEARCH WORK "PRE-ASSESSMENT MODEL FOR ERP IMPLEMENTATION"											
CASE	Actual status	Question	no.of	Strongly	Agree	Agree	Partially	Not	Score		
	of	No.	questions	agree		some	agree	agree	out	Total	Total
	implementation					what			of	score	score
									10		out
				100%	75%	50%	25%	0%			of
											100
1	Success	4.1	15	6	8	1	0	0	8		
		4.2	10	1	9	0	0	0	8		
		4.3	15	2	6	7	0	0	7		
		4.4	10	0	10	0	0	0	8		
		4.5	10	2	8	0	0	0	8		
		4.6	10	2	4	4	0	0	7		
		4.7	10	3	4	3	0	0	8	54	77
2	Success	4.1	15	4	10	1	0	0	8		
		4.2	10	6	4	0	0	0	9		
		4.3	15	4	10	1	0	0	8		
		4.4	10	2	8	0	0	0	8		
		4.5	10	2	8	0	0	0	8		
		4.6	10	4	4	2	0	0	8		
		4.7	10	4	4	2	0	0	8	57	81
3	Success	4.1	15	6	5	3	1	0	8		
		4.2	10	4	4	2	0	0	8		
		4.3	15	4	10	1	0	0	8		
		4.4	10	2	8	0	0	0	8		
		4.5	10	4	6	0	0	0	9		
		4.6	10	3	6	1	0	0	8		
		4.7	10	4	4	2	0	0	8	57	81
4	Success	4.1	15	6	5	3	1	0	8		
		4.2	10	1	9	0	0	0	8		
		4.3	15	4	10	1	0	0	8		
		4.4	10	0	10	0	0	0	8		
		4.5	10	2	8	0	0	0	8		
		4.6	10	2	4	4	0	0	7		
		4.7	10	3	4	3	0	0	8	55	79

5	Failure	4.1	15	0	1	3	8	3	3		
		4.2	10	0	5	0	1	4	4		
		4.3	15	0	4	3	2	6	3		
		4.4	10	0	0	4	4	2	2		
		4.5	10	0	2	2	0	6	3		
		4.6	10	0	0	0	4	6	1		
		4.7	10	0	0	4	3	3	3	19	27
6	Failure	4.1	15	3	4	4	3	1	6		
		4.2	10	0	0	2	4	2	2		
		4.3	15	0	0	4	4	7	2		
		4.4	10	0	0	1	3	6	1		
		4.5	10	0	0	2	4	4	2		
		4.6	10	1	0	4	3	2	4		
		4.7	10	0	3	4	3	0	5	22	31
7	Failure	4.1	15	0	1	6	5	3	3		
		4.2	10	0	0	8	0	2	4		
		4.3	15	0	5	4	6	0	5		
		4.4	10	1	1	5	2	1	5		
		4.5	10	0	0	5	1	4	3		
		4.6	10	1	0	3	5	1	4		
		4.7	10	0	2	5	2	1	5	29	41
8	Failure	4.1	15	0	1	3	8	3	3		
		4.2	10	0	5	0	1	0	4		
		4.3	15	0	1	6	8	0	4		
		4.4	10	0	1	4	4	1	4		
		4.5	10	0	0	2	4	4	2		
		4.6	10	1	0	4	4	1	4		
		4.7	10	2	2	6	0	0	7	28	40

Success factors questions : 4.1- Vendor 4.2- Top mgmt , 4.3- Pos. power user , 4.4 – Knowledge power user, 4.5 – project team, 4.6- Transaction user, 4.7 – consultant

Annexure - C

Activity		Implement. norm		Vendor	Top mgmt	Pos. Power	Know. power	Proj. team	Tran. user	Consultant
		Days	months							
Implementation phase										
1	Project kick off & core team mob.	7			7	7				
2	Ordering HW / SW	0	14 d parallel	14	14					
3	Core team training	28		28		28		28		28
4	AS IS Study	28		28		28	28	28		28
5	Hardware software installation	0	20 d parallel	20						20
6	To Be process	28		28		28	28	28		28
7	Gap analysis sign off	7		7		7	7	7		7
8	Data collection templates	2								2
9	Configuration	35								35
10	Conference room pilot sign off	14			7	7	7	7	7	14
11	Customization	28		28						28
12	Sample data upload	7					7	7		7
13	User Acceptance Test sign off	14				14	7	14	14	14
14	Final data upload	0	7 d parallel				7	7		7
15	User training	28				28		28	28	
16	Security profile	0	7 d parallel	7						7
17	Readiness assessment	2						2		
18	Go live	1	8		1	1		1		1
Post go-live phase										
19	Transactions update in the new system	28		7	28	28		28	28	28

20	Reports from new system	14		14		14		14	14	14
21	Reconciliation with Legacy system	15		15		15		15	15	15
22	Legacy system switch off	21			28	28		28	28	
23	Financials from new system	28						28	28	
24	MIS from new system	28						28		
25	User maintenance sign off	2						2	2	
26	Project sign off	1	4	1	1					
		366		210	79	240	91	307	171	283
	WEIGHTAGE			0.15	0.06	0.17	0.07	0.22	0.12	0.21

Annexure - D

Estimation of implementation delays and implementation time frame for the 8 cases												
Case	Type	Standard	success	contri-	Question							
	of	time	factors	bution	No.	Score	X	C	Delay	Prediction	Actual	Variance
	impln	in		%								
		months										
1	New	7.5	V	15	4.1	8	2	20	6	11	12	-9
	impln		TM	6	4.2	8	2	20	2			
			PP	17	4.3	7	3	20	10			
			KP	7	4.4	8	2	20	3			
			PT	22	4.5	8	2	20	9			
			TU	12	4.6	7	3	20	7			
			C	21	4.7	8	2	20	8			
									45			
2	New	12	V	15	4.1	8	2	20	6	17	15	12
	for		TM	6	4.2	9	1	20	1			
	existing		PP	17	4.3	8	2	20	7			
			KP	7	4.4	8	2	20	3			
			PT	22	4.5	8	2	20	9			
			TU	12	4.6	8	2	20	5			
			C	21	4.7	8	2	20	8			
									39			

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3	New	12	V	15	4.1	8	2	20	6	16	14	13
	for		TM	6	4.2	8	2	20	2			
	existing		PP	17	4.3	8	2	20	7			
			KP	7	4.4	8	2	20	3			
			PT	22	4.5	9	1	20	4			
			TU	12	4.6	8	2	20	5			
			C	21	4.7	8	2	20	8			
									35			
4	New for	12	V	15	4.1	8	2	20	6	17	15	12
	existing		TM	6	4.2	8	2	20	2			
			PP	17	4.3	8	2	20	7			
			KP	7	4.4	8	2	20	3			
			PT	22	4.5	8	2	20	9			
			TU	12	4.6	7	3	20	7			
			C	21	4.7	8	2	20	8			
									42			
5	Pilot	15	V	15	4.1	3	3	100	45	64	60	6
	for		TM	6	4.2	4	2	100	12			
	Group		PP	17	4.3	3	3	100	51			
			KP	7	4.4	2	4	100	28			
			PT	22	4.5	3	3	100	66			
			TU	12	4.6	1	5	100	60			
			C	21	4.7	3	3	100	63			
									325			
6	Pilot	15	V	15	4.1	6	4	20	12	56	60	-7
	for		TM	6	4.2	2	4	100	24			
	group		PP	17	4.3	2	4	100	68			
			KP	7	4.4	1	5	100	35			
			PT	22	4.5	2	4	100	88			
			TU	12	4.6	4	2	100	24			
			C	21	4.7	5	1	100	21			
									272			
7	New	12	V	15	4.1	3	3	100	45	35	36	-3
	for		TM	6	4.2	4	2	100	12			
	existing		PP	17	4.3	5	1	100	17			
			KP	7	4.4	5	1	100	7			
			PT	22	4.5	3	3	100	66			
			TU	12	4.6	4	2	100	24			
			C	21	4.7	5	1	100	21			
									192			

8	New	12	V	15	4.1	3	3	100	45	40	34	15
	for		TM	6	4.2	4	2	100	12			
	existing		PP	17	4.3	4	2	100	34			
			KP	7	4.4	4	2	100	14			
			PT	22	4.5	2	4	100	88			
			TU	12	4.6	4	2	100	24			
			C	21	4.7	7	3	20	13			
									230			
Success factors : V- Vendor, TM-Top mgmt, PP-Pos.Power user, KP-Knowledge power user, PT-Project team												
TU - Transaction users, C- Consultant												

Annexure - E

QUESTIONNAIRE							
SRM University, Research work on ERP implementation success from implemented sites							
1	Organization profile	a. Organization Name & Address	No. Of year in the business	Industry	Approx turnover INR	Growth rate	No.of employ-ees
			(b)	©	(d)	(e)	(f)
			No. of offices	No. Of offices	No. of business units	Approx no.of customers	Approx ranking in industry
			Domestic	Abroad			
			(g)	(h)	(i)	(j)	(k)
2	Implementation history	a. ERP software	Implementation period in months	Financial statements from ERP	Process automation started	MIS released through ERP	Established ERP is the only reliable data base
			(d)	(e)	(f)	(g)	(h)
		b. modules implemented		Yes / No	Yes / No	Yes / No	Yes / No

		c. Implementation partner	Internal controls set thro ERP is working	Achieved process cycle time reduction	Reduced inventory / wastages	ERP improved customer / supplier satisfaction	Achieved ROI of 25% / 50% / 100% / 200% (specify)
			(i)	(j)	(k)	(l)	(m)
		d. Type of implementation *	Yes/No	Yes/No	Yes/No	Yes/No	
3	Respondent profile	a. Respondent name	Year of service in the org.	I.T Head ? Say Yes / No	Decision maker ? Say Yes/No	Part of the impl.team / yes /no	Associated with the impln. Yes/no
			c.	(d)	(e)	(f)	(g)
		b. Designation					
4	Success factor analysis						
		Mark '√' in the selected column. In a row , only one '√' is allowed	Strongly agree (100%)	Agree (75%)	Agree some what (50%)	Partially agree (25%)	not agree
4.1	Vendor related	1. . Transparent in the recommended product's real capability					
	(Transparent with us in the	2. transparent in product fit to the organization					
	items listed in the next column)	3. Experience in implementing the product					
		4. Success and failure cases					
		5. Resource capability					
		6. Project management capability					
		7. Understanding on the product					
		8. Promises on the project delivery in terms of scope, time frame and value proposition					
		9. Understanding on the process of partnership delivery					
		10. Understanding on the true customer requirement					
		11. The support after go-live					
		12. The tools available with them					

		13. Their capability to build technical infrastructure					
		14. Their capability to interface other customer's system					
		15. Their commitment to the project.					
4.2	Top management related	1. The project is assigned high priority even at the cost of sales / production					
		2. Personal involvement for project review periodically					
		3. Assignment of key resources to the implementation					
		4. Empowering the ERP project team to set or change other's priority					
		5. Priority in allocating fund for the project					
		6. Motivating the project team – announcing awards/rewards					
		7. Involving in the change management process					
		8. Support and monitor risk management					
		9. Involve in setting clear goals for the project					
		10. Set a path for strategic alignment of business with ERP system.					
4.3	Positional power user	1. Convinced on the quality of the system output					
		2. Convinced the system will improve his job performance					
	(Positional power users , we mean Head of the departments / Managers involved in the project directly, comment on the items listed in the next column - agree /not agree/partially agree)	3. Involve in business analysis and redesign of business processes					
		4. High priority to the project team and project work					

		5. Assignment of key resources to the project					
		6. Realized that the implementations if its features like web enabling, workflow, security etc proves its worthiness					
		7. Work with project team to manage the risk					
		8. Work with top management and project team to set clear achievable goal for the project					
		9. Work with project team to align business requirements with ERP capability					
		10. Work with project team to set internal controls through ERP system					
		11. Work with other department to maximize the benefits					
		12. Act as champion for the project					
		13. Involve in training the new process es to his team					
		14. Convinced that the technical infrastructure built for the ERP guarantees the reliability of the system					
		15. Realize that success of this system will improve his image inside the organisation and also his value in the job market					
4.4	Knowledge power user	1. Willing to involve in the project in business analysis , redesign the business processes and testing					
	related	2. Willing to be a member in the data migration team and guarantee the quality of original data					
	(Knowledge power user means some key resources who possess organizations process knowledge /data to share with project team members for maximizing the benefit of the ERP implementation)	3. Willing to be a member training team to train the end user					

		4. Realization of his growth depends on the success of the project					
		5. Convinced that system will give required business benefit					
		6. Convinced that the system is suitable to origination in terms of functionality & reliability					
		7. Willing to act as a spokes person for the project					
		8. Convinced that system will produce quality outputs					
		9. Willingness to be key player in the post implementation period					
		10. Willingness to involve in the CRP testing process					
4.5	Project team related	1.Dedicated for the project & give Top most priority for the project					
		2. Realization of his growth depends on the success of the project					
		3. Convinced that the technical infrastructure built for the ERP guarantees the reliability of the system					
		4. Willingness to learn new things & practice					
		5. Realize that the software selected is the best fit for the organization					
		6. Willing to act as a spokes person for the project					
		7. Willingness to train the end user					
		8. Convinced on the quality of the system output					
		9.Realized that the implementations of its features like web enabling, workflow, security etc proves its worthiness					
		10. Ability to understand the user requirement and convert that in the ERP system					
4.6	Transaction user related	1. Willingness to learn new things and practice					

	(Transaction user or the End user who use the ERP system for transaction entry/reports)	2. Convinced that the system is consistent and meets all the job's requirements					
		3. Realized that the implementations of its features like web enabling, workflow, security etc proves its worthiness					
		4. Realization of his growth depends on the success of the project					
		5. Convinced its suitability to the organization in terms of functionality & quality of output					
		6. Convinced that system is reliable in all times					
		7. Realize that the success of the project does not harm his status in the organization					
		8. Realize that the ERP will improve his performance in the current job					
		9. Realize that ERP knowledge will give greater mileage for him in the job market					
		10. Realize that the change is required to be successful in the competitive world					
4.7	Consultants related	1. Willingness to resolve all customer requirement and map the product with little customization					
		2. Willingness to reach out for help (utilizing his professional I network) to provide best practice in the industry and give optimal solution to the customer					
		3. Willingness of the consultant to spend extra effort to satisfy the customer & to get user acceptance					
		4. Willingness to maintain quality and even ready to face the third party audit on the deliverables.					

		5. Willingness to train the customer resources for the post implementation support					
		6. Willingness to provide adequate documentation for future use and support					
		7. Willingness to provide utmost system security for the customer growth					
		8. Willingness to provide solutions which are reliable					
		9. Willingness to provide interface with existing systems for the customer to get total integrated solution					
		10. Willingness to develop world class solution model to customer in both hardware /software infrastructure					
		* Type of implementation - Green field site(1), Roll out (2), Pilot implementation for a group (3), New implementation(4)					
		Thank you for your co-operation					
Date :					Signature of the respondent		

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