

## ERP Project Stakeholders

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### ABSTRACT

ERP systems are the standard software modules implemented for core business processes along with tailored customization for competitive differentiation. ERP systems improve interaction across the organization and its supply chain, increase productivity, reduce financial and operating costs and enhance competitiveness. Though, ERP systems promise many benefits predicting successful enterprise resource planning (ERP) systems is still an elusive problem. The cost of ERP implementation failures is very high in terms of quantifiable financial resources and organizational disruption. Past research has shown that one of the reasons for ERP systems failure is that the environment in which such software is used and implemented consists of a variety of stakeholders. The implementation of software can impact the interests of these stakeholders and they may react by influencing the course of events. Stakeholder theory emphasizes that the organization has to create and maintain the support of these stakeholders by considering and balancing their relevant interests. In this study the relationship between these stakeholders and their influence on the course of events of an ERP project is examined through literature review and propositions are formulated, future research directions are discussed.

**KEY WORDS:** Enterprise resource planning, ERP implementation, Stakeholders,

### 1. INTRODUCTION

ERP systems are the standard software modules implemented for core business processes, with tailored customization for competitive differentiation. Many firms across the globe, purchase and implement ERP software packages to achieve the organizational goals like reducing financial and operating costs, increase productivity[1], attain integration across the supply chain, attain competitive advantage [2], and so forth. ERP systems are considered to be successful if they enhance these organizational goals of the firm. Although successful ERP systems can bring competitive advantage to organizations, the high failure rate is a major concern. The evidences from literature shows that about 70% of ERP implementations fail to deliver anticipated benefits[3], on

average, 78% are over budget, took 2.5 times longer time than intended and delivered only 30% of promised benefit[4]. These statistics imply that ERP projects are one of the most difficult system development projects. Past research has shown that one of the reasons for ERP systems failure is that the environment in which such software is used and implemented consists of a variety of stakeholders. The implementation of software can impact the interests of these stakeholders and they may react by influencing the course of events. [5, 6,7, 8, 9]. Stakeholder theory emphasizes that the organization has to create and maintain the support of these stakeholders by considering and balancing their relevant interests.

[10]Freeman (1984) introduced the notion of stakeholder to general management. The stakeholder thinking is brought into project management paradigm by [11]. In 21<sup>st</sup> century the role of stakeholder management in the project management literature has gained as much importance as, today even the concept of project management is defined through stakeholders as “the process of adapting the specifications, plans, and approaches to the different concerns and expectations of the various stakeholders”[12,13]. Keda Industrial Company limited, manufacturer of ceramics machinery located in Shunde, China is experiencing a remarkable success of ERP systems, though 80% of ERP implementation efforts in China fail. Keda contributed the success to the support rendered by stakeholders of ERP project i.e.; vendors, top management, project team, key users and others. Keda created and maintained the support of these stakeholders by considering and balancing their relevant interests. It is very essential to classify the stakeholders of ERP project environment and study the dimensions related to stakeholders that are contributing to ERP systems success [13] This study classified the stakeholders of ERP project environment into internal, external [10] and project team stakeholders. Internal stakeholders are “the stakeholders who are formally members of the project coalition and hence usually support the project” [14]. Internal project stakeholders are the stakeholder groups of the ERP adopting organization who will provide direction, dedicate resources, involves in training, system understanding, during and after the acquisitions of ERP systems. Examples of internal project stakeholders are top management, key users, end users etc.

External stakeholders are not formal members of the project coalition, but may affect the project. Such groups are often referred to as non-business stakeholders or secondary stakeholders [15]. The quality of external project stakeholders is crucial for the success of ERP systems. External project stakeholders are the external mediating entities such as vendors, consultants, third parties who provide knowledge, training, maintenance, and other technical support to the adopting organization [16]. Examples of external stakeholders are vendors, consultants, any other third party support firms. Past research has shown that ERP implementation in organizations is directed by an ERP project team composed of key users (user representatives who will provide training to end-users), external contractors (representatives from vendor organization and consultant organization), and Management information department staff/ IS staff. When once a business firm decides to purchase an ERP system, the internal ERP project team (key users) is formed to select the appropriate vendor and later the representatives from external vendor organization, external consultant/contractor organization and IS staff will join with the internal project team to form an ERP project team, they act in concert in the requirements definition and implementation phases and render service to the ERP project. Project team stakeholders perform various tasks in the adopting organization, which may include solving problems, offering related and required knowledge, mobilizing various skills, assisting in configuration, and deriving value from an ERP package[18].

In spite of the accredited importance of stakeholder management in project research, still it lacks both theoretical and empirical evidence of various project stakeholder related phenomenon [18, 19, 20]. The present study attempts to explore the relationship between the ERP project stakeholders and their influence on the course of events of an ERP project through a systematic literature review and a conceptual model is presented along with research propositions.

## 2. LITERATURE REVIEW

### 2.1) Internal project stakeholder

Internal stakeholders are “the stakeholders who are formally members of the project coalition and hence usually support the project” [14].The concept of internal stakeholders is often used as synonym with the concepts of primary stakeholders [11] or business actors [15] in project management literature. Such stakeholders have a formal, official, or contractual relationship with the organization [14] or are directly involved in an organization’s decision making processes [21]. Examples of internal stakeholders are top management, key users, end users etc. The importance of internal project stakeholders in IS implementation has been recognized often in the IS literature since the late 1960s.The research on critical success factors for ERP success has found that user (internal stakeholder) involvement [16, 22, 23] and top management (internal stakeholder group) support are crucial for ERP success [9,22 23,24,25]. Two most cited reasons in the literature on why internal support is essential for ERP success, First when top management support a project openly by providing the required resources, [26], providing direction to the project teams, continuously monitoring the progress of the

project [27], the other organizational members interpret those moves positively and act accordingly [17] by rendering the internal support for ERP success. Second, IS implementation involves huge investments and often has organization-wide implications, a technical failure in the IS can have a major negative impact on the business but it is well documented in the literature that managing stakeholder interests is more difficult than technical problems [5, 23].Essentially, the internal project stakeholders attends project meetings with the external project stakeholders to specify the business requirements, to clarify issues related to the project, and to monitor the progress of the project.

### 2.2) External project stakeholder

External stakeholders are not formal members of the project coalition, but may affect the project. Such groups are often referred to as non-business stakeholders or secondary stakeholders [15]. Examples of external stakeholders are vendors, consultants, any other third party support firms. The IS literature contains mainly descriptive surveys and case studies on the engagement of consultants. The literature has shown that the quality of vendor [23, 28, 29], and consultant [25, 30, 31, 32], are the critical success factors for ERP success. Vendors and consultant are part of the external stakeholder groups i.e; external mediating parties who provide technical knowledge [33], training [16] to the project teams as well as provides maintenance and other technical support to the adopting organization [17].External stakeholders are critically important as the ERP adopting organization often do not have sufficient expertise and personnel to implement those systems. The primary duties of external project stakeholders are to provide consultancy service specifically to help businesses implement effective ERP systems which include performing information requirements analysis, recommending suitable computer hardware and software, and managing implementation of the information systems, providing the computer hardware, software packages, technical support, and training of users.

**Table 1: Summary of research on ERP CSF’s from stakeholder perspective**

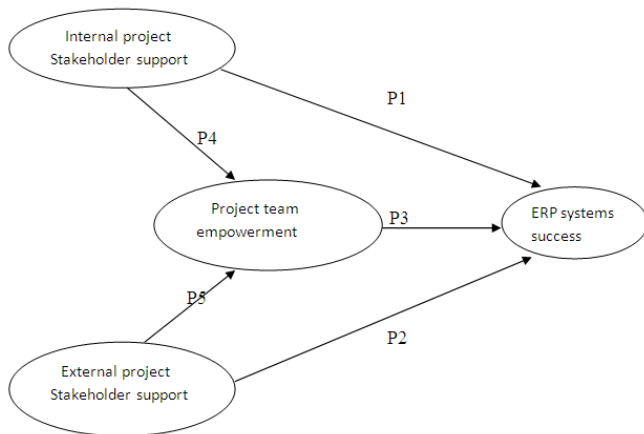
S.NO	ERP perspective – Critical success factor	Literature
1	Internal stakeholder – Top management support	22, 31,32,35, 36,37,38
2	Internal stakeholder-User involvement	22, 30,31,32,36
3	Project stakeholder – project team	38,31, 39, 35, 23,40,22
4	External stakeholder-External advisory support	30, 32,31,41, 42
5	External stakeholder-Vendor support	36, 28, 31,23

### 2.3) Project team stakeholders

ERP core project team is formed when the client (ERP adopting organization) forms its project team (client project team) in matrix structure with members from both functional

and IT group, the consultant (employed by client to facilitate ERP implementation) and the vendor (sold software to client) deploy their project teams to implement ERP successfully in client organization[34].Typically, the ERP implementation in organizations is being directed by an ERP core project team consists of client’s project team, consultant’s project team and ERP vendor’s project team [18].Project team acts in concert with each other during requirement definition and implementation phases. When top management (internal stakeholder) support a project publicly by providing the required resources,[26], providing direction to the project teams, continuously monitoring the progress of the project [27], the other organizational members interpret those moves positively and act accordingly[17] by rendering the required support to the project i.e; providing the required information to the project team during requirement definition, involving with the project team during training [16] and so on. Vendors and consultant are part of the external stakeholder group’s i.e; external mediating parties who provide technical knowledge [33], training [16] to the project teams as well as provides maintenance and other technical support to the adopting organization [17].

### 3. PROPOSED RESEARCH MODEL



### 4. PROPOSITIONS

It is emphasized in the literature that there is a need to develop measures for different stakeholders of ERP project environment [18].The same is supported by [5] that there is a need to perform this kind of research by increasing the multiplicity of relevant stakeholders because a number of stakeholders possess different kinds of interests in an ERP environment.

#### 4.1 Internal project stakeholder support

Project stakeholders are “individuals, groups or institutions with an interest in the project, and who can affect the outcome.”[43] The outcome can be either success or failure of the project. Internal project stakeholders are internal to the ERP adopting organization, i.e; top management, end users, functional managers, IT specialists who can affect the outcome of the project i.e.; ERP success. Internal project stakeholder

support refers to support rendered by these stakeholders to the ERP project. Top management plays a strategic role in providing direction to the project, allocating stable and sufficient funds, resolving conflicts among the stakeholders. Personnel from different business processes with the best business and technical expertise are available for the project to provide adequate functional requirements, to ensure interdepartmental alignment. End users of the ERP adopting organization engage actively in training and testing the ERP systems. The support rendered by the internal project stakeholders to the project will have an impact on the success of the project. The research on critical success factors has shown that Top management support [30, 38, 22] and end user support [32, 36] are critical for ERP success. Apart from these there are other internal project stakeholders of the ERP adopting organization like functional managers, IT specialists whose support is also critical for the ERP success [5, 18]. When top management (internal project stakeholder) support a project publicly by providing the required resources,[26], providing direction to the project teams, continuously monitoring the progress of the project [27], the other internal project stakeholders interpret those moves positively and act accordingly [16]. Internal project stakeholders will not show resistance to adopt the ERP systems and they actively involve in training. Senior management–BPI has shown a positive association with ERP success. Top management support has shown a positive impact on ERP success [17], user involvement has shown a positive impact on ERP success [18, 44]. The following proposition is made based on the above observations.

**P1: Internal project stakeholder support will have an impact on ERP success.**

#### 4.2 External project stakeholder support

External project stakeholders are critically important as the ERP adopting organization often do not have sufficient expertise and personnel to implement the ERP systems. External project stakeholder support refers to the support rendered by the external entities such as ERP vendors, ERP consultants; supply chain partners (suppliers and customers) to the project. ERP Vendor provides hardware and software requirements, supports upgrades and maintenance of the ERP systems. Supply chain partners support the deployment of ERP systems by actively engaging in training, providing functional requirements, allows integrating their information systems with ERP systems. ERP Consultants provide training, involve in functional requirement gathering, configuration and customization of the ERP systems as per the business needs of the ERP adopting organization. The research on critical success factors has shown that ERP vendor support [36, 28, 31] and ERP consultant support [45, 31, 23] are critical for ERP success. External project stakeholders provide technical knowledge [33], training [16] to the project teams as well as provides maintenance and other technical support to the ERP adopting organization [17]. ERP vendor support and ERP consultant support have shown a positive impact on ERP success [46, 16, 47]. Based on the above observations it is proposed that

**P2: External project stakeholder support will have an impact on ERP success.**

### 4.3 Project team empowerment

ERP project team is formed when the client (ERP adopting organization) forms its project team (client project team) in matrix structure with members from both functional and IT group, the consultant (employed by client to facilitate ERP implementation) and the vendor (sold software to client) deploy their project teams to implement ERP successfully in client organization[34].Typically, the ERP implementation in an organization is being directed by a project team consists of client project team, ERP consultant's project team and ERP vendor's project team. Project team priority is the ERP project and they work from the client location. Project team needs to be empowered for the project to be successful. Empowerment refers to "specific practices or bundles of initiatives intended to delegate authority and responsibility to organizational members" [48]. Project team empowerment refers to formulating certain practices which intend to foster decision making by delegating authority and responsibility to the project team. Project team empowerment is a critical success factor for ERP success [49, 50].So, it is proposed that

**P3: Project team empowerment will have an impact on ERP success.**

Empowerment is likely in the project only when the project team have support [51,52,48].The internal and external project stakeholders have to render the required support to the project team i.e; providing the required information during requirement gathering, providing access to resources and access to information; involving with the project team during training [18] and knowledge transfer. [53, 54] Examined the impact of external support and top management support on the success of executive information systems and found that there is no direct impact on EIS success. On the basis of the above observations the following propositions are formulated:

**P4: Internal project stakeholder support will have an impact on project team empowerment**

**P5: External project stakeholder support will have an impact on project team empowerment**

## 5. CONCLUSION

This study attempted to fill the gap exists in the ERP project management. The literature still lacks theoretical evidence of various project stakeholder related phenomena. The present study has filled this gap by presenting an extensive literature review on stakeholders of ERP project environment. The stakeholders are classified into internal, external and project team stakeholders. Based on the literature review it is proposed that the support of internal and external project stakeholders is needed for the project team stakeholders to achieve ERP systems success. This study will contribute to ERP literature by answering the call of researchers to include all the stakeholders in a single relationship to evaluate ERP success. Development of three new constructs will help to understand the contribution of internal and external project stakeholders to ERP success. The future research can be carried out by developing the measures for internal, external and project team stakeholders and to measure its impact on ERP systems success. To empirically substantiate the various project stakeholder related phenomenon.

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