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# Stakeholder Assessment and Management for Enterprise Systems Implementation Projects

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## ***Abstract***

Enterprise systems (ES) implementations are difficult to govern successfully due to the degree of organizational change involved for a diverse set of stakeholders. These stakeholders typically have multiple and often conflicting interests and rarely agree on a set of common objectives. Prior studies have highlighted the need for stakeholder engagement, but have provided few details on the types of stakeholders and their roles in enterprise systems implementation projects. This paper describes an assessment of the various stakeholders involved in complex enterprise systems implementation projects with the purpose of surfacing the differences that exist in the perceptions, influence, and expectations. By gaining this insight into key stakeholders, project managers can more effectively anticipate, understand, and react to the evolving needs of the various stakeholder groups. The paper concludes with a discussion of contributions to the literature and a call for further research to extend and refine the knowledge provided.

## ***Keywords***

Information technology governance, stakeholder analysis, enterprise systems, project management, change management.

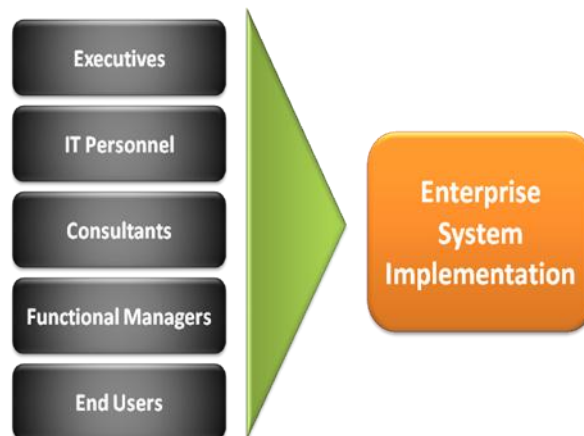
## **1. Introduction**

Enterprise systems (ES) implementation projects are difficult to govern successfully due to the degree of organizational change involved for a diverse set of stakeholders. These stakeholders typically have multiple and often conflicting interests and rarely agree on a set of common objectives. Prior studies have highlighted the need for stakeholder engagement, but have provided few details on the types of stakeholders and their roles in enterprise systems projects. The goal of an enterprise systems implementation project is typically to create a unified organization with efficient operations and customer driven business processes. However, ES implementations have often been found to be complex and risky because unlike a traditional Information System (IS), enterprise systems involve many stakeholders from executives to front line employees. These stakeholders typically have multiple and often conflicting interests and priorities and rarely agree on a set of common objectives. Stakeholder resistance to change is also a major contributor to the difficulties encountered during ES implementation (Aladwani, 2001; Kim and Kankanhalli, 2009).

A stakeholder assessment is important to understand the nature of differences that exist in the perceptions of different stakeholders within an organization. Assessing the influence, importance, and level of impact upon each stakeholder can help project managers and others to manage ES implementations more effectively. The proper engagement of stakeholders in ES implementation is essential for both success and sustainability. If stakeholders are not properly engaged, they will be resistant and the perceived benefits of the system will not be realized.

Although there have been studies that analyze stakeholder involvement in ES implementations, the focus tends to be on certain stakeholders such as the information technology (IT) department, management or end users and lacks a holistic view. Furthermore, numerous authors have analyzed critical success factors whereby stakeholders are discussed from a high level perspective without providing details on the different stakeholders and analyzing the roles played in ES implementation (Esteves, 2007). This paper will explore the roles of executives, consultants, IT personnel, functional managers, and end users involved in ES implementation (see Figure 1), as well as the issues each of these stakeholders encounter to provide a comprehensive analysis.

An approach to managing the different expectations to facilitate the successful integration of the system will also be discussed. Managing stakeholder expectations means that you provide stakeholders with information so that they have an appropriate understanding of what to anticipate with regard to the system implementation. While this may appear to be a relatively simple concept, due to various factors, it can often be difficult to achieve. It should be a part of the overall stakeholder management and change strategy, as it can lead to a greater level of stakeholder involvement and commitment. It is important to understand each stakeholder since different strategies may work for different stakeholders. Knowing what kinds of stakeholder management strategies to use and when will surely result in a successful ES implementation.



**Figure 1:** Enterprise System Implementation Stakeholders

## 2. Theoretical Background

The concept of stakeholders has been widely acknowledged by project and change management professionals as a critical ingredient in the implementation of IS and non-IS projects. A stakeholder is any group or individual who can affect or is affected by the achievement of the organization's objectives (Freeman, 1984; Mitchell, Agle, and Wood,

1997). Mitchell et al.'s (1997) stakeholder identification and salience theory aids in classifying stakeholders based on power, legitimacy and urgency. Prior studies have examined the perceptions of stakeholders as they relate to ES implementations. However, many of these studies focus on one or two stakeholders and lack a comprehensive view. For example, studies have focused on senior manager perceptions of ES implementations to help identify critical success factors (Nah, Zuckweiler, and Lau, 2003; Willcocks & Stykes, 2000). Meanwhile other studies compared the perceptions of user-managers and end-users on different ES implementation success factors in order to develop appropriate intervention mechanisms for these stakeholders (Amoako-Gyampah, 2004).

### **3. Stakeholder Assessment and Management**

There are two main considerations that will be presented in this paper for the purpose of aiding project managers in ES implementations; stakeholder assessment and stakeholder management.

#### **3.1 Stakeholder Assessment**

Enterprise systems implementation projects tend to affect a diverse set of stakeholders within an enterprise, hence, making effective stakeholder analysis and management critical. An assessment of stakeholders aims to evaluate and understand the different interests, influences and perceptions of all stakeholders who may affect or be affected by the implementation. This can help to proactively determine ways to reduce negative impacts on the groups with less influence and power within the enterprise. A thorough stakeholder analysis can also identify potential conflicts or risks that could jeopardize the project, as well as opportunities and strategies for stakeholder engagement during implementation. Therefore, it is imperative to identify and engage all stakeholders early on in the project to ensure the proper measures are in place to manage the different characteristics of these stakeholders. Taking this initiative will increase the likelihood of successful implementation and adoption of the enterprise system. The following sections provide an in depth analysis of the roles, perceptions, interests, and expectations of the different stakeholders summarized in Table 1.

A company's executive team is usually the sponsors of ES implementation projects. The sponsor's role is to approve funding and resources for the project, as well as ensuring that the project fits within the organization's strategic objectives. Therefore, executives tend to have the most presence as stakeholder in the initial phases of the project (Boonstra, 2006).

Top management support, commitment to resources, and change management have been identified as critical success factors contributing to successful ES implementation (Nah et al., 2003; Dong, 2001; Akkermans & Van Helden, 2002). Executives expect to achieve fast results that will positively impact the company's bottom line and reduce the payback period for the project. This leads to the lack of commitment and support for change management, especially where fundamental organizational changes are involved (Dong, 2001).

The IT department's role is to ensure that the various ES modules are properly linked to the company's existing systems and data sources. This team has a strong interest in one company wide ES because this would lead to an abandonment of many local systems and decentralized IT groups; in turn creating a strong centralized IT department. They are the key stakeholder from a technological standpoint; ensuring that the new ES system has been successfully implemented. However, they typically lack the power to influence the project in any

significant way (Boonstra, 2006). If the IT department is not viewed as a strategic partner, most of the work will be outsourced to external consultants who specialize in this area; therefore, top management will seek advice from the external consultants as opposed to the internal IT department (Willcocks & Stykes, 2000).

Stakeholder	Role	Influence	Expectations	Issues
Executives	<ul style="list-style-type: none"> <li>▪ Approve funding and resources for the project</li> <li>▪ Provide support, commitment to resources and change management</li> <li>▪ Ensure all the right stakeholders have been engaged</li> </ul>	Highest influence and power with the organization	<ul style="list-style-type: none"> <li>▪ Timely and successful completion of ES implementation</li> <li>▪ Increased profits and lower costs</li> <li>▪ Becoming one integrated company</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lack of commitment and support</li> <li>▪ Downplay change management</li> <li>▪ Strong presence in beginning stages but later become dormant</li> </ul>
IT Personnel	<ul style="list-style-type: none"> <li>▪ Provide technical support</li> <li>▪ Work with consultants to successfully integrate the system within the organization</li> </ul>	Low influence and power with the organization	Abandonment of many local systems and decentralized IT groups; in turn creating a strong centralized IT department	<ul style="list-style-type: none"> <li>▪ Lack of co-operation from other stakeholders on the business side</li> <li>▪ Lack of involvement in decision making process</li> </ul>
Consultants	<ul style="list-style-type: none"> <li>▪ Work with internal stakeholders to understand requirements and business processes</li> <li>▪ Provide system, documentation, training and change management support</li> <li>▪ Successful implementation of the ES system</li> </ul>	High influence and power with the organization	<ul style="list-style-type: none"> <li>▪ Timely and successful completion of ES implementation within the customer organization</li> <li>▪ Co-operation and support of internal stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lack of co-operation from internal stakeholders</li> <li>▪ Obtaining reliable and accurate information from employees</li> </ul>
Functional Managers	<ul style="list-style-type: none"> <li>▪ Signoff on requirements and business processes</li> <li>▪ Identify SMEs to be involved in ES implementation</li> <li>▪ Ensure all the right stakeholders have been engaged</li> </ul>	Medium to High influence and power with the organization	<ul style="list-style-type: none"> <li>▪ Provide employees with integrated, real-time, accurate and reliable information</li> <li>▪ Streamlined processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Might see the system as a threat</li> <li>▪ Lack of involvement in the implementation and change management process</li> </ul>
End Users	<ul style="list-style-type: none"> <li>▪ Provide business process knowledge and expertise</li> <li>▪ Clearly communicate business requirements to IT and consultants</li> </ul>	Low influence and power with the organization	<ul style="list-style-type: none"> <li>▪ System that provides integrated, real-time, accurate and reliable information</li> <li>▪ Solve business problems</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lack of involvement in the decision making process</li> <li>▪ Balance operational requirements with ES implementation support</li> </ul>

**Table 1: Stakeholder Assessment**

Consultants typically work for the vendor from which the ES software is being purchased. Their main interest is to ensure that the enterprise system is successfully implemented in order to obtain payment for their product and services, as well as future support such as upgrades and troubleshooting. They are also concerned with their image in the marketplace; the outcome of the ES implementation would impact the prestige of the group (Boonstra, 2006). The major problem encountered by external consultants relates to obtaining reliable and accurate information from employees with regards to business procedures and requirements (Pan, 2005).

The role of functional or departmental managers in an ES implementation project is to sign off on requirements and business processes that have been developed or modified as part of the implementation. Functional managers are usually more accepting and positive about the change than their employees (Amoako-Gyampah, 2004). Their attitudes towards the implementation can be influenced by involving them in the implementation and change management processes (Harley, Wright, and Hall, 2006).

The end users primary role within an ES implementation is to work closely with IT and the consultants to clearly communicate their business requirements. They also act as subject matter experts providing these teams with the business process knowledge that they require to successfully implement the system. End users must balance their job responsibilities along with supporting the ES implementation. End users expect an enterprise system to be able to provide integrated, accurate, timely and reliable information that surpass the system it is replacing (Amoako-Gyampah, 2004). User resistance often stems from changes and uncertainty in the employees responsibilities (Hong & Kim, 2002).

### **3.2 Stakeholder Management**

During an ES implementation project, conflicts and political distrust among stakeholders may occur. These conflicts are due to either their own interactions or through the influence of other stakeholders; and are a contributing factor to ES project abandonment (Pan, 2005). Conflicts between internal and external stakeholders such as consultants are well documented. These can conflicts occur as a result of resistance and lack of co-operation from internal stakeholders (Pan, 2005). Misalignments between expectations can also result in conflicts among stakeholders. An example of this is the lack of shared IT vision; shared understanding between senior management and the IT department about ES implementation and its contributions to organizational competitive advantage contributes to severe problems during the implementation (Dong, 2001). Furthermore, political distrust among stakeholders is likely to lead stakeholders to accusing one another of a hidden political agenda. Therefore, it's imperative to ensure that all stakeholders are aligned towards a common goal. They must work closely together through frequent interaction, coordination and communication in order to strengthen their relationship with one another (Pan, 2005). Stakeholders should be identified and managed according to their issues, interests and expectations (Boonstra & de Vries, 2008). Table 2 summarizes the stakeholder management strategies identified in the previously described literature.

Communication among stakeholders is one of the most important activities during ES implementation. The need for communication across functional boundaries is especially important since the primary objective of enterprise systems is to integrate business functions (Akkermans & van Helden, 2002). Senior management must work to create effective awareness for the enterprise system by communicating its benefits and how it works to the employees. Providing them with knowledge about what the system can deliver to the organization can build anticipation. Furthermore, they must formally promote the project teams and notify employees about the project plan, scope, objectives, activities and updates in advance. Communication tools such as monthly bulletins, newsletters, and weekly meetings can be used to keep employees engaged (Nah et al., 2003). End users and the IT personnel need to know that the feedback they provide regarding technological and process issues or concerns with ES will be acknowledged and acted on (Nah et al., 2003). Managing expectations is an integral part of creating a well-aligned team that will ultimately lead to the successful implementation of the enterprise system (Akkermans & Van Helden, 2002).

Implementing an enterprise system is a complex undertaking that not only results in newer technology but also includes modified business processes and policies (Aloini, Dulmin, and Mininno, 2007). Recognizing the importance of change management is crucial and will result in all stakeholders supporting the ES implementation (Nah et al., 2003). Often training and education are the first items on a budget to be cut when the project experiences budget overruns (Nah et al., 2003). Therefore, senior management must allocate and commit to

sufficient funding for the training and education of the users (Aladwani, 2001). Formal training and education must be provided to help stakeholders understand how the enterprise system will impact their work activities. In addition to holding formal training sessions, this can be accomplished by establishing a support organization such as a help desk or online user manual to meet users' needs and effectively manage the change (Nah et al., 2003).

Stakeholder	Issues	Stakeholder Management Strategies
Executives	<ul style="list-style-type: none"> <li>▪ Lack of commitment and support</li> <li>▪ Downplay change management</li> <li>▪ Strong presence in beginning stages but later become dormant</li> </ul>	<ul style="list-style-type: none"> <li>▪ Senior management should acknowledge and actively monitor and support the concerns of all legitimate stakeholders</li> <li>▪ Acknowledge that ES implementations are a major change requiring proper change management</li> <li>▪ Maintain a strong presence throughout the implementation of the system</li> <li>▪ Acknowledge the potential conflicts that could occur between stakeholders and work to create alignment between them</li> <li>▪ Openly communicate with all stakeholders to create alignment on objectives</li> </ul>
IT Personnel	<ul style="list-style-type: none"> <li>▪ Lack of co-operation from other stakeholders on the business side</li> <li>▪ Lack of involvement in the decision making process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Building relationships to establish understanding, trust, and cooperation among the business users.</li> <li>▪ Clearly and openly communicate with stakeholders</li> <li>▪ Escalate any foreseeable issues to senior management</li> </ul>
Consultants	<ul style="list-style-type: none"> <li>▪ Lack of co-operation from internal stakeholders</li> <li>▪ Obtaining reliable and accurate information from employees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Building relationships to establish understanding, trust, and cooperation with internal stakeholders</li> <li>▪ Openly communicate with all stakeholders to create alignment on objectives</li> <li>▪ Acknowledge the concerns of all legitimate stakeholders and work collectively to resolve them</li> </ul>
Functional Managers	<ul style="list-style-type: none"> <li>▪ Might see the system as a threat</li> <li>▪ Lack of involvement in the implementation and change management process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Acknowledge and actively monitor and support the concerns of employees</li> <li>▪ Maintain a strong presence throughout the implementation of the system</li> <li>▪ Openly communicate with all stakeholders to create alignment on objectives</li> <li>▪ Close involvement in the implementation and change management process</li> <li>▪ Escalate any foreseeable issues to senior management</li> </ul>
End Users	<ul style="list-style-type: none"> <li>▪ Lack of involvement in the decision making process</li> <li>▪ Balance operational requirements with ES implementation support</li> </ul>	<ul style="list-style-type: none"> <li>▪ Escalate any foreseeable issues to functional manager</li> <li>▪ Openly communicate with all stakeholders to create alignment on objectives</li> <li>▪ Clearly communicate business requirements from an information and process standpoint</li> <li>▪ Obtain support from manager and peers to focus on properly supporting the ES implementation</li> <li>▪ Close involvement in the implementation and change management process</li> </ul>

**Table 2:** Stakeholder Management

When stakeholders are actively involved in the implementation process they will experience a sense of ownership (Harley et al., 2006). Furthermore, it would be much easier for them to adapt to the new processes since they would have played a major role in developing these processes.

#### **4. Conclusions and Future Research**

Enterprise systems implementation projects are a complex undertaking that require a great deal of coordination and organizational change management for the diverse set of stakeholders. This paper provides insight into stakeholder roles, expectations, and sources of conflict in ES implementation projects. By utilizing this stakeholder analysis and effectively anticipating and responding to the stakeholder issues, project managers are able to mitigate the risks of stakeholder conflict derailing the project. Several studies within the literature

depict a strong relationship between stakeholder management and successful ES implementation (Pan 2005; Nah et al., 2003; Aladwani, 2001). The stakeholder management approaches can help strengthen alignment of interests within the stakeholder groups and help build stronger collaborative relationships among the stakeholders. An analysis of the literature also indicates that ensuring all stakeholders are well informed and involved in the implementation which creates acceptance and anticipation for the change. This research provides a contribution to the existing literature by providing an assessment of all the key stakeholders involved in ES implementations. Furthermore, the research presented an approach for stakeholder management through effective communication and change management; ultimately increasing the likelihood of successful ES implementation. Further research is needed to establish a framework for involving and managing key stakeholders of an enterprise systems implementation.

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