

Towards a Stakeholder Analysis of Information Systems Development Project Abandonment

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Abstract

This study adopts a stakeholder analysis to examine stakeholders' roles and contributions in influencing organizational decisions to abandon information systems (IS) development projects. To do so, we adapted from Freeman's (1984) work and developed a theoretical assessment framework to organize and interpret data, and define avenues (five propositions were proposed) for further research into IS project abandonment. By providing a better understanding of the project stakeholders' perception, expectations and their interrelationship, this study provides practitioners with useful insights on how to manage stakeholders in IS development projects. Our contribution lies in the development of a project abandonment review model that adds a stakeholder perspective.

Keywords: Information systems development project abandonment, Stakeholder analysis, Case research approach.

1. Introduction

Information systems (IS) have been playing an instrumental role in helping organisations to achieve success and costly IS development projects have raised the stakes associated with project failure. The dominant stream of research on IS failure is committed to uncovering factors associated with failure (Barki et al. 1993, Schmidt et al. 2001). These studies worked on the assumption that if factors contributing to failure are detected, organizations can directly get rid of these factors. On the other hand, process research on IS failure has gathered momentum in recent years and has highlighted a number of themes. The themes are: political (see Drummond 1996, Bussen and Myers 1997), technical (see Beynon-Davies 1995, Wastell and Newman 1996), strategic (see Mitev 1994, Sauer and Burton 1999) and a combination of interacting factors (see Brown and Jones 1998). Besides all these accounts of IS failure, other studies have attempted testing process frameworks (e.g. Beynon-Davies 1995) and proposition of a configurational theory of IS failure (e.g. Sauer et al. 1997). However, none has been rigorously validated or well received so far. Many IS researchers and practitioners have misconstrued the meanings of IS project failure and IS project abandonment, as both terms are frequently used interchangeably in media reports and academic articles. While there are many resemblances between the two phenomena, IS project abandonment is characterised as a subset of the larger organisational issues of IS project failure. IS project abandonment can be

considered as ‘the anticipated or perceived failure of the project prior to its full implementation, whereas, IS project failure is the consequence of failing or dwindling expectations of the implemented system’ (Ewusi-Mensah and Przasnyski 1991, p.67).

While IS failure has been the focus of many articles in the IS discipline, the subject of IS project abandonment has been largely neglected and under-studied (Ewusi-Mensah and Przasnyski 1991, 1994, Oz and Sosik 2000). Worse, results have shown that few organizations actually made any formal efforts to understand what went wrong or attempted to learn from their abandonment experiences (Ewusi-Mensah and Przasnyski 1995, Kumar 1990). Furthermore, there is also little guidance from literature on how to conduct such review process (Collier et al. 1996). The lack of progress in this area could be due to both the avoidance of embarrassment to admit mistakes or reveal any abandoned endeavours (Ewusi-Mensah 1997) and ‘limits of organizational intelligence, disincentives for learning, organizational designs and educational barriers’ (Lyytinen and Robey 1999, p.85). However, contrary to what these organisations’ beliefs, if they had any desire to break away from this vicious recurring abandonment syndrome, they need to start paying more attention to examine past project mistakes. The knowledge, experience and insights gained in the process will help reduce the frequency of abandoned IS development projects and improve the practice of IS development throughout the industry (Ewusi-Mensah 1997).

The development of an IS project requires the effective participation of diverse stakeholders (Cavaye and Cragg 1995). Lyytinen and Hirschheim (1987) underline the importance of the stakeholders by stating that the fulfilment of the expectations of relevant stakeholders is perceived as an integral part of IS development project success. The concept of stakeholder was first introduced in the early work of system theorists, but it was Freeman (1984) who brought stakeholder theory to the forefront of academic research. A stakeholder in an organization is defined as ‘any group or individual who can affect or is affected by the achievement of the organization’s objectives’ (Freeman 1984, p46). Even though the stakeholder concept has been widely accepted among IS researchers and practitioners (see Pouloudi and Whitley 1997, Orlikowski and Gash 1994, Gallivan 2001, Lederer and Mendelow 1990), very few studies have examined the incompatibilities between stakeholders’ perceptions and expectations with the project goal, especially in the case of external stakeholders; and assess the stakeholders’ conflicting interrelationship in an IS development project. These are important issues since individual stakeholder cannot be viewed as a single entity in a project. Rather, it is the interrelations among different stakeholders that constitute one of the most appealing mechanisms of stakeholder behaviour (Pouloudi and Whitley 1997). Furthermore, these issues have yet to be explored as potential contributing factors to organizations’ practice of IS project abandonment. Against such a backdrop, we undertook an exploratory research study into an abandoned electronic procurement (e-procurement) system project. Specifically, the main objective of this paper is to conduct a stakeholder analysis to find out why IS development projects are abandoned. To do so, we adapted from Freeman’s (1984) work and developed a theoretical assessment framework to organize and interpret data, and define avenues for further research into IS project abandonment.

The paper is structured as follows: the research methodology and research context will be discussed. After that, data will be extracted from a case of an abandoned e-procurement project and findings are discussed along with conclusions and limitations.

2. Research Methodology

2.1 Research Strategy

Our strategy was to undertake research in an organisation where one of the authors was an employee of the case organization. The main reason why this interesting case was selected for investigation

was its magnitude and complexity involving several groups of stakeholders, especially the complicated interrelationship between the project manager and the external stakeholder. Given the exploratory nature, our research employed an interpretative case study approach (Walsham 1993, Orlikowski and Baroudi 1991) as we recognize our belief that reality is socially constructed and much can be learnt through the interplay between the subjects and objects of our case study. The study was based on a new e-procurement system project called E-PRO, in an organisation named ElectroCo (a pseudonym). One advantage for using the case study method is its ability to explain what goes on in organisations and it is also particularly good for answering the 'how' and 'why' questions (Yin 1994).

2.2 Data Collection

An eight-month period was spent where data on the abandoned project were collected at ElectroCo. Primarily, twenty-eight semi-structured interviews were conducted post-hoc and with all the relevant project stakeholders, each lasting one and a half hours. The interviewees were selected based on the types of relationship of the stakeholder to the IS and the direct or indirect 'depth of impact' the stakeholders possess in relation to the IS (see Lyytinen and Hirschheim 1987). For this research, we established a set of categories corresponding to the stakeholder assessment framework. Nevertheless, the interviewees were allowed to express their views on aspects they considered important. All interviews were taped-recorded and transcribed with the interviewees' permissions. Secondary data such as reports, memos and meeting minutes were gathered to supplement the information collected through interviews. These documents played a crucial role to establish triangulation and maintain the chain of evidence (Patton 1987). Table 1. provides information on the interviewees' job functions in the organization.

Job Function	Quantity
Managing Director	1
IS Manager	1
Purchasing Manager (Project Manager)	1
IS Analyst and Programmers	5
Users	5
Suppliers	8
Total	21

Table 1. Number of Interviewees by Job Function

2.3 Analysis of Data

The transcripts of interviews and observation data were used to create a detailed history of the project displaying the sequence of the events. These data were shown to interviewees to obtain feedback and establish respondent validation (Bryman 2001). To reduce researcher's own bias, both data and investigator triangulation were used (Patton 1987) to increase the robustness of the results. The next step of the analysis was to determine the set of factors associated with the project stakeholders that seemed to contribute to the eventual abandonment of the project. In the case of the E-PRO, a stakeholder assessment framework based on the two conceptual levels of analysis discussed by Freeman (1984) was used as the basis to identify and organize the factors that seemed to contribute to project abandonment. The case findings were compared against factors found in previous abandonment literature and new factors were highlighted.

3. Background of the E-procurement Project and why it was Abandoned

3.1 Using a Social Process Model for Case Presentation

The study adopted the social process model introduced by Newman and Robey (1992) from mapping the project information to investigating the development process of the abandoned E-PRO at ElectroCo. This model explains long periods of stability as episodes that are confronted by major forces of change called encounters. "An episode refers to a set of events that stand apart from others, thus signifying the end of one sequence of activities and the beginnings of another. Encounters mark the beginnings and ends of episodes" (Newman and Robey 1992, p.253). These confrontations could result in a state of acceptance, rejection, or equivocation by the stakeholders. The model is particularly useful in our case presentation as it offers a mode of explanation for different actions and decisions taken by the project stakeholders during the project development process (Newman and Robey 1992).

3.2 Organization and Project Background

ElectroCo was established in 1991 as a subsidiary of a Japanese corporation to produce electronic components. The project we studied concerned the development of a proposed E-PRO, by the procurement department in 1998.

Antecedent Project Conditions

Before 1998, the bulk of the procurement activities involved the use of paper-based documents. ElectroCo's relationship with major suppliers, however, turned sour in 1998. This was due to the deadlock in the material price negotiation on key materials, which had been ongoing for a long time. The company had a relatively small supplier base as it depended on only a single source of supply for most of its production materials. The logic behind such practice was to consolidate their large buying volumes in exchange for cheaper material prices. However, this practice worked against the company in its development of the E-PRO system, which would be shown in subsequent events.

Encounter 1: Proposal to Set Up an E-procurement System and the Initial Reactions from the 'Internal' Stakeholders

In 1998, the procurement manager proposed setting up an E-PRO system to assist the procurement department to reduce the paperwork and to source worldwide for cheaper substitutes in material supply. The IS manager, however, was cautiously supportive towards the project due to the magnitude and the complexity of the new system. Even though, the users expressed scepticism over the new technology attributing to past failures in installing a computerised procurement system, however, the truth was that the users were more concerned with the automation of their daily tasks, which might lead to job cutting. The procurement manager was aware of their fears but did nothing.

At this stage, the suppliers were not informed about the project.

Episode 1: Acceptance

Although not all internal stakeholders were convinced of the E-PRO system, the project managed to kick off with strong support from the managing director. It was clear at this point that the procurement manager did not investigate what other relevant stakeholders' perceptions towards the project were. He was influenced by the frenzied rush to adopt e-commerce solutions by major organizations in the industry. The wide adoption of e-commerce solutions was, however, fueled by several media reports that heavily publicized the overstated benefits of what e-commerce solutions can provide for businesses.

3.3 Encounter 2: Breaking the News to the Suppliers, Faced with Suppliers' Doubts and Suspicions

The procurement manager announced the project in the briefing session with approximately 50 suppliers. He made one-way presentation with little room for discussion and questions. The news threw the suppliers into a state of disarray. Several rumors regarding the project spread among the suppliers with the most disturbing version being reducing the number of existing suppliers. With the prototype almost completed in its development, the procurement manager made no effort to clarify the suppliers' doubts over the objective of E-PRO.

Episode 2: Acceptance

At this stage, the project proceeded as planned. However, the suppliers were upset for not being informed at the project outset and also worried about the entry of new competitors. ElectroCo could bring in new suppliers with this system. One of the key suppliers commented, *"This would make it easier for competitors from other countries that may have similar e-procurement facility to link up."*

This episode represented a period of suppliers’ secret meetings and planning to interfere with the project development. The procurement manager was totally unaware of the suppliers’ activities.

Encounter 3: The Supplier’s Appeal to the Procurement Manager, the Procurement Manager Turned Down their Requests

The suppliers had perceived E-PRO as a threat and had decided to act coherently to stop the development project. They requested for the project to be postponed giving reasons such as technical incompatibility with the new system. The procurement manager rejected their request instantly and demanded their full compliance to meet the requirements of the system. The procurement manager responded, *“We have the right to implement any system that deemed beneficial to the company. They must comply with our terms.”*

Episode 3: Equivocation

News of the suppliers’ objection had affected the project members at ElectroCo. The IS manager was very sympathetic towards the suppliers. The suppliers had also approached the managing director regarding their concerns. The managing director was uninformed of the development and was surprised by the gravity of the situation, which he immediately called for a meeting.

3.5 Encounter 4: The Final Showdown

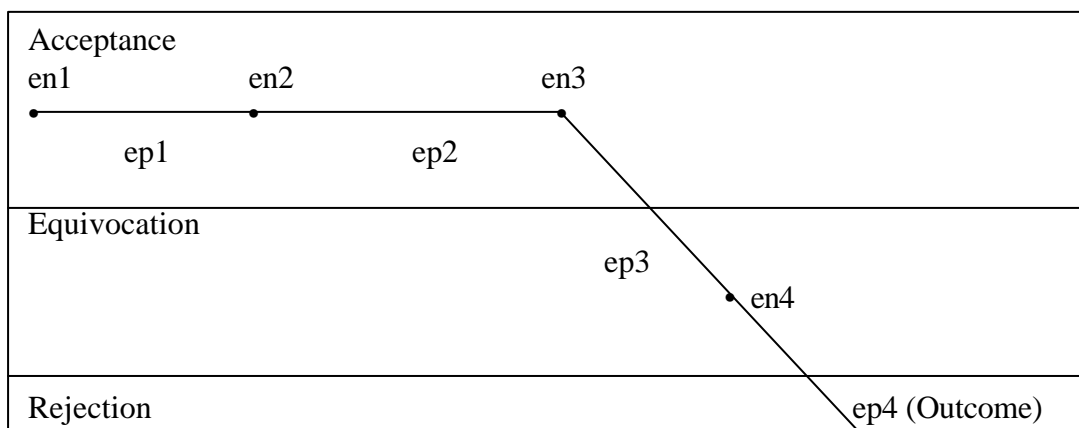
In the meeting, discussions were turned into heated arguments. The managing director then decided to consult other project stakeholders. The IS programmers refused to be drawn into this conflict. However, the IS manager changed his stance and spoke on their behalf, *“I think they need more time to upgrade their systems to meet the compatibility requirement.”* The users’ opinions were unexpectedly crucial at this stage, *“Several computerisation efforts have failed, which has caused distress among us. Therefore, we are also supporting the call to abandon the project.”*

Outcome: Project Abandonment

The managing director made the decision to abandon the project. The situation ended with the suppliers *“winning the confrontation,”* as one of the project members described it. In a subsequent interview, the managing director blamed the procurement manager for mishandling the situation. In his opinion, the procurement manager ought to have clarified their doubts, offered them valid explanations and report the matter to top management. The process map for the project at ElectroCo is shown in Figure 1.

Antecedent Conditions: Strained Relationship

Time



Legend: • encounter (en)
- episode (ep)

Figure 1. Process Map for E-PRO

3.3 An Analytical Framework for Developing Factors that Contribute to Project Abandonment

Organizations that are considering project reviews need to perform a thorough evaluation process to find out why projects are abandoned. There are very few abandonment studies conducted using stakeholder analysis. Perhaps, a more dynamic technique to assess stakeholders' interrelationship in IS development projects is needed to underline their influential roles. For this reason, we wish to demonstrate through this case study that a stakeholder approach holds much promise as a conceptual framework and analytical tool.

In order to achieve our objective, we have adapted from Freeman's (1984) work and developed a theoretical stakeholder assessment framework to help us explain how stakeholders contribute to IS project abandonment. The framework consists of two levels: 'rational' and 'process'. It begins with the 'rational' level where organisations identify project stakeholders by first defining the meaning of stakeholders. This is due to the inconsistency in stakeholder's definitions and uses, which often results in different and conflicting evidence and arguments (Bunn et al. 2002). Next, we selected the project stakeholders according to the stakeholder's identification principles described by Pouloudi and Whitley (1997) and criteria proposed by Lyytinen and Hirschheim (1987).

In the 'process' level, the analysis begins with defining the business objectives and project objectives to guide the information requirements phase of the development process (Ewusi-Mensah 1997). Then, a contrast analysis is performed to identify the gaps between the project goal and the stakeholders' expectations, since the lack of general agreement on a well-articulated set of project goals and objectives is a major contributing factor to abandonment (Ewusi-Mensah 1997). In order to have a complete understanding of stakeholders' expectations and perceptions, we have to be familiar with their interrelationships by assessing the formal and informal organizations (Block 1983). The main purpose is to identify stakeholders' role conflicts and the formation of any negative networks which could hinder the project development. Finally, we summarize all potential factors that might endanger the success of the project, which could arise from the incompatibilities between the project goal and the stakeholders' expectations; or their conflicting interrelationships or both.

While the stakeholder assessment framework (Figure 2) is not expected to uncover every problem, it is expected to contribute to a more detailed understanding, and assist in developing a set of propositions that could be validated in future research. The framework also helps to develop new factors that might contribute to project abandonment. Thus, our purpose here is limited to illustrating the potential of a stakeholder assessment framework for analyzing IS project abandonment situations, and developing propositions that will be useful to both practitioners and researchers.



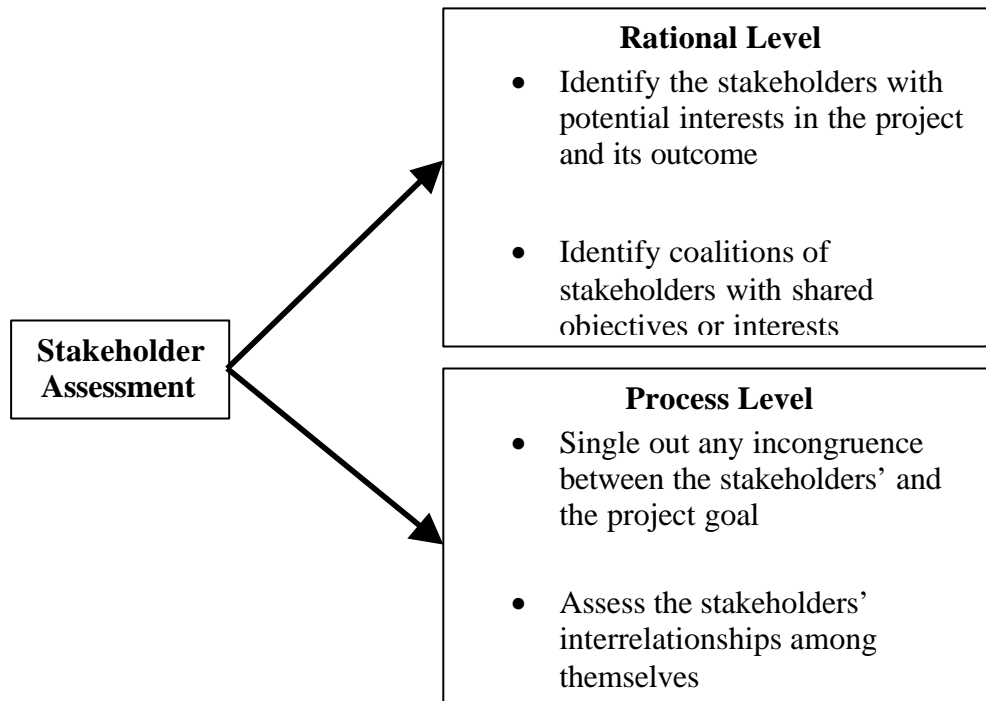


Figure 2. The Stakeholder Assessment Framework

3.4 Findings and Emerging Research Propositions

Based on the notion that fulfilling stakeholders' expectation is an integral part of IS project success, we argue that the issues concerning the stakeholders which are summarised by the assessment framework will also be relevant for understanding the project abandonment phenomenon. Using the framework and the case findings, we defined a number of propositions for future investigations and uncovered several factors contributing to project abandonment. The following discussion examines the logic behind the propositions, and draws out a number of supportive findings.

Proposition 1 (the Rational Level)

Conducting a stakeholder identification analysis is imperative in establishing a close collaboration, which includes interactions, coordination, and communication among both 'internal' and 'external' group of project stakeholders.

The key issue associated with the 'rational' level that seemed to contribute to the abandonment of E-PRO, is the failure to conduct a stakeholder identification analysis. As shown in the case, the procurement manager failed to identify the group of suppliers as one of the key project stakeholders who could affect the implementation of E-PRO. He perceived them as outsiders and underestimated their influential role in the project, which subsequently led the project onto a problematic path. This was evident as the managing director also attributed the project failure to his mismanagement of the suppliers. One of the main reasons to why the procurement manager did not conduct a proper stakeholder analysis could be due to the influence of major industry forces to adopt e-commerce

solutions. The 'new technology' claimed to provide several benefits and most importantly, a quick fix to his problems.

This conclusion is consistent with previous project management literature, which stated that project managers ought to identify relevant project stakeholders (Schmidt et al. 2001) and devise strategies to counteract anticipated confrontation from actors in the negative networks (Block 1983). However, one important lesson we have learnt is the difficulty of identifying 'external' stakeholders. The question remains as: do we apply the same set of selection criteria for both 'internal' and 'external' group of stakeholders? Or should we explore new dimensions cater to the 'external' group of stakeholders, since existing IS can produce far-fetching impacts with the advent of electronic commerce and Internet? Future work should attempt to address this issue by validating the existing stakeholder identification criteria (Lyytinen and Hirschheim 1987) and principles (Pouloudi and Whitley 1997) with the emphasis on 'external' stakeholders.

Proposition 2 (the Rational Level)

Identifying and analysing possible coalitions among stakeholders are important in understanding various groups of stakeholders' shared objectives and beliefs towards the project

Stakeholders, who are governed by their shared motivations, responsibilities, authorities and predispositions, tend to form coalitions when planning for a joint initiative. Coalitions have far-reaching impacts for project managers during the development process since they could potentially be a source of help or an obstruction to project success (Block 1983). Rowley (1997) reinforces the importance of a coalition as he argues that organizations do not react to each stakeholder independently but focus on the concurrent demands of multiple stakeholders. Previous research has shown that the formation of opposing coalition usually happens in an IS project when stakeholders see their interests threatened by the change initiative and invoke resistance (Robey and Boudreau 1999).

In the case of E-PRO, the suppliers formed a coalition with a common objective of opposing the development project. Their collective efforts proved to be crucial in the development process, since they successfully overcame the decisions of other stakeholders and generated changes to the original project initiative. The procurement manager failed to identify the existence of the suppliers' coalition and as a result, was not on familiar terms with the common objective and belief shared by the group of suppliers. This information, we believe, would have provided the manager with a more accurate view of why negative project encounters happened and offered predictions on what the coalition was planning to do next.

A review on existing literature has shown that coalition analysis has been highlighted as one of the key steps in project management (Grover et al. 1988, Block 1983), however it has not been extensively discussed in both IS project failure and abandonment literature (Schmidt et al. 2001, Ewusi-Mensah 1997). Perhaps, the potential risk to IS projects presented by coalitions has been minimal in previous studies, and hence, a lesser need for scrutinising their activities during the development process. Nevertheless, we still believe, coalition analysis is useful and should provide project managers with valuable insights in dealing with groups of stakeholders with common objectives or interests, especially in the case of opposing coalition (Robey and Boudreau 1999), which we have identified in this study as important for successful project implementation.

Proposition 3 (the Process Level)

The compatibility of the 'external' stakeholder's perceptions and expectations, with the project's goal is often neglected

E-PRO's objective diverged with the suppliers' aim of either expanding or maintaining their current business position with ElectroCo that unavoidably led to the occurrence of conflicts. Efforts were absent from both parties to try to realign their goals, either through negotiation or mediation. The procurement manager failed to even try to ease their doubts or encourage their participation in adopting the new system. Perhaps the undue pressure from the top management to cut cost had eluded his commonsensical judgement of enrolling the suppliers into the project. Furthermore, the expectations of stakeholders were established based on early impressions and understandings of how the proposed changes were to be achieved (Gallivan 2001). However, the task of dealing with 'external' stakeholders in an IS project can be complicated and demanding. Previous IS research on project implementation focused mostly on managing 'internal' project stakeholders (see Oz and Sosik 2000, Grover et al. 1988, Myers and Bussen 1997) and seldom on the management of 'external' project stakeholders. Perhaps with the burgeoning business-to-business (B2B) e-commerce systems and the increasing practices of outsourcing of information technology services, more insights on 'external' stakeholders' role and their rising influence in IS development projects are needed.

Proposition 4 (the Process Level)

Stakeholders' positional mobility during the project development process depends on their interrelationship.

During a project development process, stakeholders may change their stance over time (Pouloudi and Whitley 1997), either on their own accord or through the influence of other stakeholders. In E-PRO, the users and the IS manager only openly withdrew their support towards the project in Episode 3 and 4. The change was even more dramatic in the managing director's case. He was in full support of the project throughout the first three periods until Encounter 4, where he called for the abandonment of E-PRO. The suppliers' ability to influence the managing director at the later stage of the development process seemed to suggest their close interrelationship. This is an interesting and important finding since no previous IS abandonment literature (Ewusi-Mensah and Przasnyski 1991, 1994 & 1995, Oz and Sosik 2000, Sauer and Burton 1999, Sauer 1993) has ever considered the change in the relevant stakeholder's position during the project development process that might contribute to the abandonment decision. The implication is for IS project managers to track the stakeholders' stance at various encounters during the project development process. This would help to ensure stakeholders' continued commitment throughout the development process.

Proposition 5 (the Process Level)

Roles and role conflicts between executives, IS professionals and external stakeholders affect stakeholders' interrelationships in development projects.

During a project development process, role conflicts among stakeholders may occur resulting from either their own interactions or through the influence of other stakeholders. In the case of E-PRO, the deteriorating relationship between the suppliers and the procurement manager during the development process initiated the first obstacle to project success. This prompted the suppliers to seek help from the IS manager and the managing director. The suppliers' ability to influence the IS manager and the managing director at the later stages of the development process seemed to suggest their close interrelationships with one another. The newly formed interrelationships among the

suppliers, IS manager and the managing director preceded over the original 'trusting' relationship between the managing director and the procurement manager in the midst of the project development, which proved to be the turning point in the events leading to the project abandonment decision. Furthermore, the relationship between the IS manager and the procurement manager was questionable as well. One may wonder why did the IS manager not confront the procurement manager or blow the whistle to the managing director right at the beginning of the project since he had serious reservations regarding its implementations? A likely explanation could be that he was miffed at being cut out of the project which led to his unprofessional behavior.

Insights to identifying the more subtle stakeholder conflicts are both interesting and important because very few study in the IS abandonment area (see Oz and Sosik 2000, Sauer and Burton 1999, Sauer 1993b) has examined the roles and interrelationship conflicts among the stakeholders during the project development process as likely contributing factors leading to a project abandonment decision. Therefore, the implication is for IS project managers to track the stakeholders' interrelationships and avoid the more subtle stakeholder conflicts at various encounters during the project development process. This would help managers to minimize any role conflicts that might arise during project developments.

Summary Model of Factors that Contributed to Project Abandonment by Using a Stakeholder Assessment Framework

Figure 3. represents a summary model of the factors that contributed to project abandonment decision by using a stakeholder assessment framework in E-PRO. Three new factors have emerged from our findings and reinforced the importance of satisfying the expectations of the stakeholders to ensure project success (Ewusi-Mensah and Przasnyski 1991).

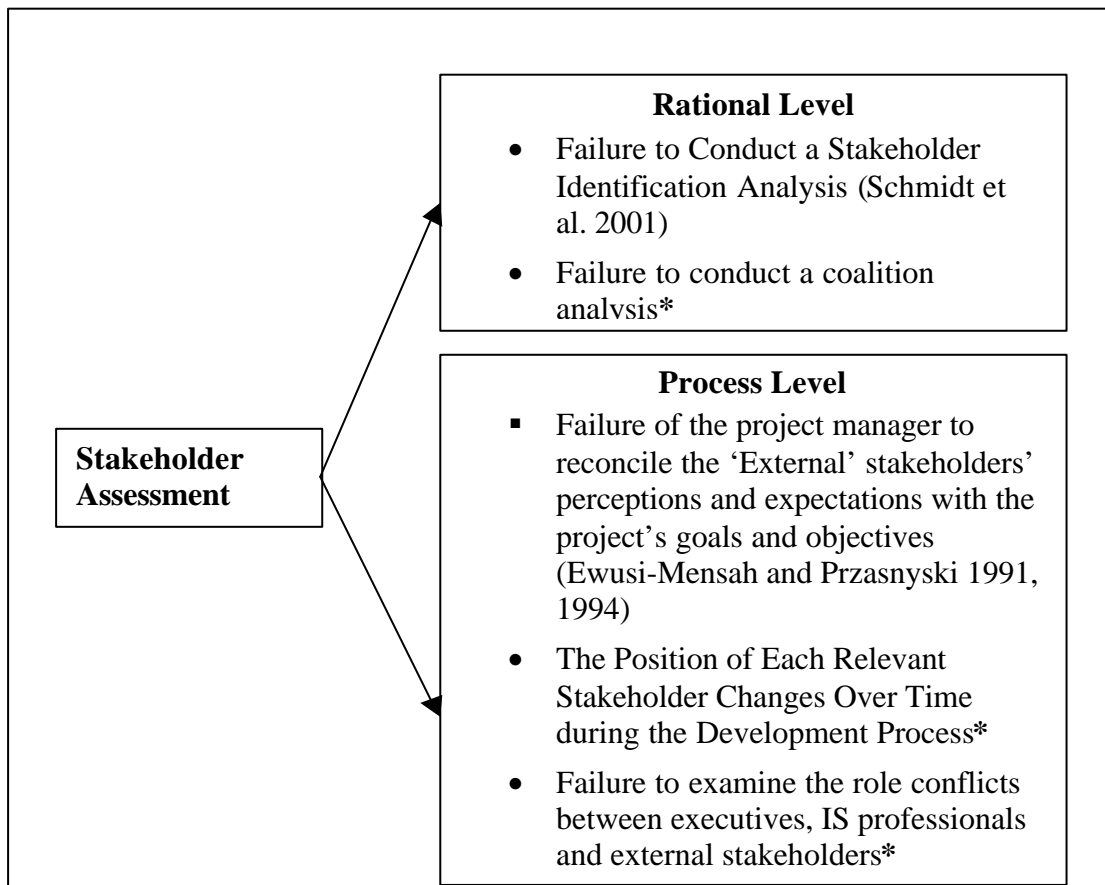


Figure 3. A Summary Model of Factors that Contributed to Abandonment by Using a Stakeholder Assessment Framework

Note: ‘*’ represents new factors that lead to abandonment which are not found in project abandonment literature

Implications for Researchers and Practitioners

The stakeholder analysis conducted in this study has important implications for both researchers and practitioners. For researchers, this study is significant in that it represents one of the very few stakeholder analysis case studies of IS project abandonment. While there are other studies involving abandoned IS development projects, previous studies focused on deriving development risk factors (Ewusi-Mensah and Przasnyski 1991, 1994, Oz and Sosik 2000) rather than stakeholder assessment process. Even though the critical role of the stakeholders in the IS project development has been mentioned in some project abandonment studies (Ewusi-Mensah 1997, Ewusi-Mensah and Przasnyski 1991), there is no systematic procedure or any guiding framework to analyse the stakeholders’ contributions to project abandonment. Our contribution lies in the development of a project abandonment review model that adds a stakeholder perspective. This allows us to combine a range of factors into a more logical framework that can serve as the basis for further investigation. By providing a better understanding of the project stakeholders’ perception, expectations and their interrelationship, this study provides practitioners with useful insights on how to manage stakeholders in IS development projects. However, it is important that managers have the techniques to analyse why projects are abandoned that can be used in future project development process. A detailed plan outlining the actions taken when using the stakeholder assessment framework is illustrated in Table 2. The findings in this study highlight the importance of studying the interests of those promoting particular objectives of transformation and the interests of those opposing them (Robey and Boudreau 1999).

Conceptual Levels	Actions
<p style="text-align: center;">Rational Level</p> <p>- Identifies the project stakeholders</p>	<ul style="list-style-type: none"> ▪ Use stakeholder identification criteria proposed by Lyytinen and Hirschheim (1987) and the stakeholder identification principles described by Pouloudi and Whitley (1997) • Coalition analysis

<p style="text-align: center;">Process Level</p> <p>- Singles out any incompatibilities between the stakeholders' perceptions and expectations with the project goal; assesses the stakeholders' interrelationships among themselves</p>	<ul style="list-style-type: none"> • Define business objectives and project objectives • Understand stakeholders' expectations and perceptions towards the project • Perform a contrast analysis • Assess the formal organizations and the informal organizations (networks representing stakeholders' interrelationships) • Identify factors that endanger the success of the project development
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Table 2. A Detailed Plan Outlining the Actions Taken When Using the Stakeholder Assessment Framework

4. Conclusions and Limitations

As there are very few empirical studies on IS project abandonment, this study represents a contribution to knowledge in this subject area. It complements existing studies by offering a new framework to examine the abandonment phenomenon. In this paper, by drawing on a case study of the short-lived E-PRO project experience, we demonstrated the use of a theoretical framework to explore a number of factors that contribute to project abandonment decisions. We also developed five project management propositions for further research. These comprise what stakeholder approach suggests as key issues in project management and integrate what our research revealed as essential issues that organizations should be aware of to prevent project abandonment situations. The encounters and episodes of the project were mapped in order to demonstrate the changes in stakeholders' perceptions and expectations and their interrelationships at various stages during the development process. This offered valuable insights to what exactly constituted a change in the stakeholders' position, which eventually contributed to the decision to abandon E-PRO.

The findings described in this paper are limited in the following: First, the researcher who was an employee of the organisation at the time when the research was conducted, might conjure preconceptions on the stakeholders and derive biased impressions from prior working experiences,

which could have misled the findings. Second, the use of a single case might not be an adequate representation of industries in the general economy. Instead, a study of multiple cases from an assortment of industries should better reflect the elusiveness of IS project management and possibly, unearth more findings on an issue of vast significance to the IS community. Despite the limitations, we are convinced that this study is useful since abandonment is a common and costly problem among IS development projects (Ewusi-Mensah and Przasnyski 1995), and there can be no question about the importance of a deeper understanding of its nature and avoidance (Lyytinen and Robey 1999). The stakeholder analysis is especially relevant, given the interorganizational nature of the E-PRO system where managing a range of interests from multiple stakeholders is key to the project development success. Finally, the concepts and framework that we discussed could be of great value in terms of guiding the management to make decisions throughout the project development process, especially with regard to managing relationships with stakeholders.

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