Escalation and De-escalation of Commitment to Information Systems Projects: Insights from an Approach-Avoidance Process Model

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ESCALATION AND DE-ESCALATION OF COMMITMENT TO INFORMATION SYSTEMS PROJECTS: INSIGHTS FROM AN APPROACH-AVOIDANCE PROCESS MODEL

Breakthrough Ideas in Information Technology

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Abstract

We view escalation and de-escalation of commitment as processes involving recurring instances of approach-avoidance conflict. This paper outlines an approach-avoidance process model for describing and analyzing escalation and de-escalation of commitment in information systems projects. In the model, the sequential mapping of project events is integrated with a model of approach-avoidance conflict that identifies periods of gradual evolution at two separate levels of social analysis (project and work) that are punctuated by sudden, revolutionary periods of rapid change. By conceiving the processes of commitment escalation and de-escalation as sequences of events involving approach-avoidance conflicts, researchers may develop a deeper understanding of how and why projects escalate and de-escalate. Practitioners can also utilize the model in post-mortem analyses of projects which have faced escalation to diagnose the issues surrounding the escalation and devise useful de-escalation strategies for future project development. The model is developed and illustrated with a case study that exhibits both project escalation and de-escalation conditions.

Keywords: Escalation and de-escalation of commitment to information system projects, punctuated equilibrium process model, approach-avoidance theory, case study.

Introduction

Most research on information systems (IS) development has sought to understand why commitment to projects escalates (e.g. Keil, 1995) and how to reduce commitment to troubled projects (e.g. Montealegre and Keil, 2000). Despite this progress, escalation still occurs with high frequency among IS projects (Keil and Robey, 1999). We posit that one reason for this is that many escalation and de-escalation studies are organized around either a gradual accumulation process model or a universal sequence of stages model (e.g. Newman and Sabherwal, 1996; Keil and Robey, 1999; Montealegre and Keil, 2000) that exhibits cycles of escalation and de-escalation. These models place strict demands on social processes by hypothesizing that the stages follow a specific temporal order and implying a

1 We would like to thank Professor Mike Newman, Dr. Donal Flynn, and Dr. Joan Mann for providing valuable suggestions and feedback in the earlier versions of the paper.
forward direction of change toward a desired end goal (Sabherwal and Robey, 1993), which could often be over-definitive and mechanical in today’s turbulent project environments.

For that reason, we aim to approach escalation and de-escalation of commitment from a new angle – that of treating project development processes as a series of sequential events involving approach-avoidance conflicts. Our approach is in line with the suggestion of Keil et al. (2000) that escalation situations in IS can be viewed as instances of approach-avoidance conflict. The approach-avoidance theory conceptualizes escalation as a behavior that results when driving forces that encourage persistence outweigh restraining forces that encourage abandonment (Brockner and Rubin, 1985) despite unambiguous negative feedback. Similarly, these conflicts could also exist in project redirections, since persistence is an essential condition for successful turnarounds.

The goal of this paper is to formulate an approach-avoidance process model that can be used to describe and analyze escalation and de-escalation of commitment in IS projects. We propose a punctuated equilibrium model that identifies periods of gradual incremental evolution that are punctuated by sudden revolutionary periods of rapid change (Gersick, 1991). Here, ‘punctuated equilibrium’ indicates that project development will continue as it does unless pushed to change by some unexpected event (such as a major environmental change), or intentionally changed to address a new need in the project. We further propose two separate levels of social analysis – the project level and the work level – for better explanatory power. In this paper, we approach de-escalation with our focus on project redirection rather than abandonment, since successful project turnarounds are rarely documented and discussed in the IS literature. Accordingly, we undertake a case study where we analyze the development process of an IS project that initially went out of control (cycles of escalation) but was successfully turned around (de-escalation). In the subsequent sections, we will introduce our proposed model and demonstrate how it could enrich the current understanding of escalation and de-escalation.

Past Research

Escalation of commitment is a phenomenon that refers to situations where decision makers commit additional resources to a failing course of action (Staw, 1981). Early escalation studies suggested that the escalation phenomenon represents a syndrome of decision errors that tends to lock decision makers into a course of action (Staw, 1981). However, an alternative definition was later proposed by Bowen (1987) that suggests that escalation of commitment can also result from a dilemma caused by the interplay between the degree of commitment to a course of action and the amount of equivocality perceived in the feedback on prior investments and in expectations for the future. Escalation studies have been applied to a variety of settings. In IS projects, commitment escalation is a widely observed phenomenon, such as in the well-known Taurus project at the London Stock Exchange (Drummond, 1996) and the case of the baggage handling system at the Denver International Airport (Montealegre and Keil, 2000). The escalation literature has suggested four types of determinants of commitment, namely project, psychological, social, and structural, that together can explain the escalation phenomenon in IS settings (Keil, 1995). To alleviate the impact of project escalation, Keil and Robey (1999) suggested a de-escalation strategy as an effective way of reducing commitment to a troubled project.

De-escalation of commitment is defined as the “reversal of escalating commitments to failing courses of action, either through project termination or redirection” (Keil and Robey, 1999, p.65). To date, the IS development literature has suggested two stage-based process models of de-escalation (Keil and Robey, 1999; Montealegre and Keil, 2000). While these universalistic approaches offer useful insights into the de-escalation process, this paper argues that their assumptions – that changes in all organizations take place along the same path (i.e., the same stages) and that these changes are in a forward direction toward a desired end goal – do not sufficiently recognize the importance of contextual differences in determining the appropriateness of a particular model.

Several theories have been used to explain the escalation phenomenon, such as the self-justification theory (Staw, 1981), the prospect theory (Whyte, 1986), the agency theory (Jensen and Meckling, 1976), and the approach-avoidance theory (Rubin and Brockner, 1975). Among these theories, the approach-avoidance theory provides a more complete explanation of the escalation and de-escalation phenomena for two main reasons. First, it captures the essence of complex situations that tend to create conflict in the mind of a decision maker who faces a project with an ambiguous future (i.e., a decision maker who needs to decide whether to persist with or abandon the project).
Second, the approach-avoidance perspective acts as a foundation to bring several different escalation theories into one overarching model (Mann, 2003). This is possible as many of the 'drivers' (which may alternatively be known as 'aspects' or 'attributes') that encourage and discourage persistence in the approach-avoidance perspective could also be used to explain escalation theories. In an approach-avoidance conflict, there are aspects that attract and attributes that repel. This creates conflict. The decision maker has to weigh the positive and negative attributes in order to decide which is stronger – the need to approach or the need to avoid (Rubin and Brockner, 1975). Table 1 summarizes the attributes that encourage and discourage persistence and their components.

<table>
<thead>
<tr>
<th>Drivers to Persist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of withdrawal</strong></td>
</tr>
<tr>
<td>- The decision maker will be considered a failure by others (Rubin et al., 1980).</td>
</tr>
<tr>
<td>- Sunk cost effect (Keil et al., 2000).</td>
</tr>
<tr>
<td><strong>Reward for success</strong></td>
</tr>
<tr>
<td>- To be viewed as successful and perhaps to gain status or even promotion (Rubin and Brockner, 1975).</td>
</tr>
<tr>
<td>- The organization will reap the benefits of the project that have been envisioned at the outset. (Brockner et al., 1979).</td>
</tr>
<tr>
<td><strong>Proximity to goal</strong></td>
</tr>
<tr>
<td>- Completion effect (Conlon and Garland, 1993)</td>
</tr>
<tr>
<td><strong>Ambiguity</strong></td>
</tr>
<tr>
<td>- The confidence that the project could be turned around (Rubin and Brockner, 1975).</td>
</tr>
<tr>
<td>- The visibility of project completion (Conlon and Garland, 1993).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drivers to Desist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of persistence</strong></td>
</tr>
<tr>
<td>- Opportunity cost incurred for investing in a project turnaround rather than a new project (Northcraft and Neale, 1986).</td>
</tr>
</tbody>
</table>

Table 1: A Summary of Approach-Avoidance Attributes that Encourage and Discourage Persistence in Project Development [Derived From Mann (2003)]

An Approach-Avoidance Process Model of Escalation and De-escalation of Commitment in IS Projects

In this study, we specify an approach-avoidance process model of escalation and de-escalation of commitment in IS projects. We propose the use of a punctuated equilibrium model over a staged-based model to aid the empirical detection of repeated patterns of social activity and their complex social history (e.g. Newman and Robey, 1992) and better reflect today’s uncertain and rapidly changing project environments. In this model, we view events as instances of social action relating to the IS development process (Hirschheim et al., 1991). Our interest lies in explaining the source and consequences of these events of actions, which follow a path dependency principle. IS development is seen as a sequence of events that unfolds over time. A series of negative project information which is not heeded by the project manager would satisfy the requirement of project escalation (Keil, 1995). Project redirection is triggered by a critical event when a project shifts from escalation to either an ‘ambiguous’ or ‘positive’ state. When a project stops after a period of escalation, it may represent project abandonment.

In a research setting, the researcher has to decide what to classify as events and which events to consider as critical. In this paper, we assume that organizations are complex entities, comprised of many goal-directed individuals whose purposes may be incompatible. Therefore, we analyze sequences of events at two separate social levels –the project level and the work level – to offer greater explanatory power and also to reconcile any contradictions in the processes (Cule and Robey, 2004). Project level events are described as incidents occurring in the project that influence the proceeding or outcome of the project. Work level events are characterized as incidents occurring in the ‘work systems’ that influence the proceeding of the project. For example, a user manager leaving the project group during the project development process to take up a new assignment unrelated to the IS project could affect the development process. We argue that both project and work level events unfold simultaneously within an organization and their necessary intersections may alter a project’s evolutionary path. Antecedent conditions may also affect subsequent events in project development. Every project event is continuously influenced by its environment. The model also suggests that at every critical event (an incident that changes project trajectory), the project manager may have to
weigh the positive and negative attributes in order to persist or desist project development (Mann, 2003). The researcher may need to use his or her judgment to determine the net force (whether positive force or negative force is stronger) that seems to best fit the information presented. Figure 1 shows the general structure of the model.

**Figure 1: An Approach-Avoidance Process Model of Commitment Escalation and De-Escalation in IS Projects**

### Research Approach

Our strategy is to undertake an in-depth interpretive case study (Klein and Myers, 1999) of an electronic procurement (e-procurement) project conducted in UKC (a pseudonym). The research site is a large metropolitan borough council located in the United Kingdom (UK). The case study approach is adopted as it allows for the better capturing of the organizational dynamics of a phenomenon (Newman and Sabherwal, 1996). We have selected the particular case for study as the project escalation and turnaround experiences it exhibits offer a valuable example of the escalation and de-escalation phenomena, which may prove useful when devising de-escalation strategies and tactics.

We negotiated research access with UKC in December 2001. From January 2002 to August 2002, we carried out data collection, which began in the field with a meeting with the IS Strategic Director, who provided additional documentation (internal project management records) outlining the project management history in UKC. Primarily semi-structured interviews and informal discussions were conducted with all relevant project stakeholders. The relevant stakeholders were the Council Cabinet representative, the Strategic Management Director, the head of IS services, and the project development team that consisted of the IS Project Manager, an IS analyst, users representing several business functions, and the IS contractor. Twenty-eight interviews were conducted, each lasting an average of one-and-one-half hours involving altogether 17 interviewees. Secondary data such as reports, memoranda, and meeting minutes were also gathered to supplement the information collected through interviews. We established a set of topic guides to help us with the interview questions (e.g. “Discuss various critical incidents that have affected the progress of the project”; “Identify the de-escalation triggering activities”). Materials drawn from the escalation and approach-avoidance theory literature guided the design of the questions. Most interviews were tape recorded and transcribed with the interviewees’ permission. We took notes for four interviewees who refused permission for the use of a tape recorder.

As a first step in the data analysis, one of the researchers analyzed the antecedent conditions, interview transcripts, and secondary data, and created a detailed history of the project in narrative form. Next, he identified the events that unfolded over time. These events were analyzed at both the project and work levels. The alternating slow and rapid paces of change seemed to best conform a punctuated equilibrium model (Newman and Robey, 1992). After validating the events with several individuals who were familiar with the project’s history, the researcher rated the
events as positive, ambiguous, or negative. To reduce the researcher bias, the project information and interview transcripts were shown to a co-researcher who was uninvolved in the fieldwork. The role of this co-researcher was to “bring a different and possibly more objective eye to the evidence” (Eisenhardt, 1989, p.538). The information received did not include the field researcher’s list of events and ratings. Next, the co-researcher developed his own list of events and ratings. After that, both researchers met to compare their individual lists of events. In cases where it was difficult to categorize an event or agree on a rating, the two researchers used their own judgment to assign the ratings that seemed to best fit the information presented. After the events were rated, the entire project development process was presented in the form of the punctuated equilibrium model as shown in Figure 1.

The next step of the analysis was to determine the approach and avoidance attributes at several critical events in the development process. The approach-avoidance process model was used as the basis for identifying and organizing the attributes. The researcher compared the forces promoting approach and avoidance, and determined which was greater, hence explaining the various evolutionary and revolutionary periods. These approach-avoidance attributes were compared and contrasted against the array of factors identified in the IS literature as contributory to escalation or de-escalation. The entire data analysis process went through numerous iterations (Klein and Myers, 1999) so that a coherent and consistent overview of the case organization could be formulated.

The E-procurement System at UKC

This section presents background information about UKC and its e-procurement project. It highlights the escalation process and identifies critical events that punctuated the de-escalation process. The case facts are presented in a series of events that illustrate both the escalation and de-escalation processes (shown in Appendix A, Table 2). Table 2 also provides information about the antecedent conditions, the project timeline, and its accumulated cost. Table 3 provides a summary of Work-level events that intersected Project-level events in the E-procurement project at UKC. Approach and avoidance attributes that determine the project trajectory are summarized in Table 4 (Appendix A). Finally, the approach-avoidance punctuated equilibrium model of commitment escalation and de-escalation in the e-procurement project at UKC is shown in Figure 2 (Appendix A). Figure 2 also identifies a period of escalation (Events 2 – 4) punctuated by two de-escalation attempts (Events 5 and 7). Figure 2 further indicates that the de-escalation process does not necessarily move forward to a desired end goal. Instead, there may be ‘twists and turns’ (Drummond, 1998) during the de-escalation process (e.g. Event 10).

Discussion

We have demonstrated the use of a punctuated equilibrium model to describe and explain the escalation and de-escalation process at UKC (shown in Figure 2). We will next discuss how the model could enrich our present understanding of the escalation and de-escalation of commitment to IS projects.

Escalation as Instances of Approach-Avoidance Conflict

Our results support the view that escalation can be viewed as instances of approach-avoidance conflict (Rubin and Brockner, 1975), and that approach-avoidance attributes operate simultaneously in a project. However, we also note that some attributes may appear earlier than others in a project. For example in the case of UKC, ‘reward for success’ attributes appeared in Event 1, whereas ‘cost of withdrawal’ attributes only started appearing from Event 5. The e-procurement project began to show signs of escalation in Events 2 – 4, when persisting drivers such as ‘rewards for success’ and ‘ambiguity about the project future’ overrode desisting drivers in the face of project failure. Our results also highlight the existence of the completion effect (Conlon and Garland, 1993), which is a core component of the approach-avoidance theory. It could be seen in interviewees’ comments such as: “We were so close, it was too late to give up now.” (E-Envoy, 30 July 2002, #UKC-20) (Event 7 – Project Level); and “The first stage was within our reach.” (IS Project Manager, 4 July 2002, #UKC-13) (Event 11 – Project Level). The level of persistence increased as the e-procurement project inched closer to completion. There was a false perception that the e-procurement project was close to completion in the earlier part of project development, and this may be attributed to a lack of information about the actual status of the project. Indeed, the E-Envoy was totally unaware of the problems faced by the project group during the early stages of its development process. Overall, the UKC case illustrates a scenario of the project
manager being overly optimistic in his perceptions (e.g. Events 2 – 6) and the top management failing to receive accurate status reports.

Furthermore, the findings from the case of UKC also suggest that the approach-avoidance perspective could act as a foundation to bring several different escalation theories into one overarching model (Mann, 2003). For example, approach-avoidance attributes (refer to Figure 2) such as ‘considered as a failure by others’ (Self-Justification Theory), ‘sunk cost’ (Prospect Theory), and ‘information processing’ (Agency Theory) indicate that aspects of several theories may be operating simultaneously within the e-procurement project. Here, we view these escalation theories as complementary rather than competitive when used to explain escalation behavior (Keil et al., 2000).

Finally, our analysis identifies ‘high business criticality’ as an important approach attribute that has contributed to the persistence of the e-procurement project at UKC. Interestingly, it is a contributing factor for both project escalation and redirection in the case. This signifies that the project had such a significant meaning to the organization that it had to be turned around. It was strategically critical to the organization, as it possessed significant business values in two ways: “It was the next-generation way of running a local council. Furthermore, the central government expected us to be a role model in the e-procurement initiative in the UK” (E-Envoy, 30 July 2002, #UKC-20) (Event 8 – Project Level). This has not been acknowledged in both the escalation and de-escalation literature, and could potentially be important, since ‘high business criticality’ can also be used to make sense of why the baggage handling system at the Denver International Airport was still completed despite being 16 months behind schedule and close to US $2 billion over budget: “There was a growing realization that baggage handling would be critically important in an airport of this size and that this issue could not be off-loaded to the airlines that would be operating out of DIA” (Montealegre and Keil, 2000, p. 418).

**De-escalation as a Gradual Process with ‘Twists and Turns’**

Our findings support the view that de-escalation is a gradual process (Montealegre and Keil, 2000) rather than a sudden event that occurs almost instantly when certain conditions, such as unambiguously negative feedback, are present (e.g. Garland et al., 1990). However, we also propose that the de-escalation process may encompass some ‘twists and turns’ (Drummond, 1998). This differs significantly from the prevailing argument in the IS literature that the de-escalation process is always forward-moving and comprises only four-phases (e.g. Montealegre and Keil, 2000). The ‘twist’ in the de-escalation process at UKC (refer to Event 10 – Project Level) was due to the project members’ lack of confidence that the project would turn around, which in turn derailed the progress of the turnaround process. We consider this a ‘twist’ from the ‘positive’ to the ‘ambiguous’ state before the eventual return to the positive state again (see Figure 2). This implies that critical events may alter the trajectory of a project and revolutionize de-escalation proceedings.

Figure 2 also suggests that the project entered into two crises during the development process (Events 2, 3, 4 and 6 – Project Level). In both crises, dramatic interventions were necessary to turn the troubled project around. However, the e-procurement committee did not seize the opportunity and failed to take any major corrective actions, except to provide additional financial support (refer to Event 5 – Project Level) for project development. The irony is that such behavior could, in fact, encourage persistence in a troubled project and lead to project escalation. The E-Envoy, however, with the help of the rest of the project group members, identified an alternative strategy and successfully implemented the turnaround strategy. Importantly, the findings suggest that triggering activities that promote de-escalation must be available before any successful implementation of de-escalation could take place (Keil and Robey, 1999). Four triggering activities may be identified in the UKC case: making negative outcomes less threatening, giving unambiguously negative feedback, identifying the problems, and appealing to stakeholders (Montealegre and Keil, 2000). Among these activities, the whistle-blowing act could be considered a major turning point in the e-procurement project development at UKC. The events that unfolded over the project development process at UKC illustrated both the ‘mum effect’ and the ‘deaf effect’ (Keil and Robey, 1999). The mum effect, which is the failure to transmit unambiguous negative feedback, could explain why the project still progressed despite having trouble – decision makers were unaware of the actual status of the project. The deaf effect could be seen in the e-procurement committee members’ unwillingness to take corrective action even though they were fully informed about the problems inherent in the project development. It was clearly a situation of ‘decision dilemmas’ (Bowen, 1987) that was surrounded by several contradictory voices from the IS Project Manager and the users. The case also
demonstrated how both the mum effect and the deaf effect were overcome (refer to Events 7 and 8) before a project turnaround could take place (Keil and Robey, 2001).

**Necessary Intersections between Project and Work Level Events May Trigger Both the Escalation and De-escalation Processes**

Our analysis suggests that project and work level events unfolded simultaneously during the e-procurement project development at UKC, and their necessary intersections triggered both the escalation and de-escalation processes in the project. For example, activities that occurred in the work systems (Event 6 – Work Level) triggered the de-escalation process in the troubled project. Basically the alternative e-procurement solution provided user managers with an opportunity to re-assess their failing course of action. Though it might have undermined group unity in the project, nevertheless it provided an important condition that prompted whistle-blowing (Keil and Robey, 2001) (Event 7 – Project Level). Similarly, the annual department audit that took place in the procurement department (Event 3 – Work Level), served as a good example of why activities in the work systems could trigger escalation of commitment to the troubled e-procurement project. As a result, more resources had to be invested, since several new modifications had to be added to the prototype and the project group had to be re-organized. This greatly disrupted project development, which was already facing some problems at that stage, and further delayed progress. At that point, the project situation at UKC clearly fulfilled the essential condition of a runaway project (Keil and Robey, 1999).

The two examples from the case of UKC suggest that the necessary intersections of work and project level events are a subtle but critical interplay between simultaneous processes and events. By positing that the development process should be examined at two separate levels of social analysis (project and work), we have introduced greater explanatory power and reconciled the contradictions in the two processes of the organization (Cule and Robey, 2004). Overall this demonstrates that any process analysis has to carefully outline an influence and its direction at various points along the evolutionary path in order to show how the project constitutes and influences its context and vice versa.

**Implication, Conclusion, and Future Research Challenges**

The purpose of our paper is to provide a deeper understanding and explanation of the escalation and de-escalation of commitment to IS projects. By drawing on a case study of an e-procurement project at a UK public organization, we have developed an approach-avoidance process model for analyzing escalation and de-escalation using the theories of approach-avoidance conflict and punctuated equilibrium. The model depicts instances of approach-avoidance conflict over the course of project development. Through interviews with relevant stakeholders and the review of important documents, we have gathered data on attributes that encourage and discourage persistence, and that determine the trajectory of the project. These instances of approach-avoidance conflict provide a clear explanation of how and why escalation and de-escalation could take place as they did in the project at UKC. Our model also distinguishes interacting courses of activities at separate levels (project and work), and suggests that their necessary intersections can have important bearings on project trajectory.

We believe the study has made several contributions: First, it provides a detailed illustration of how an IS project can be trapped in cycles of escalation before it is eventually turned around. Such turnaround experience is valuable, since there are very few de-escalation studies available in the IS literature (Montealegre and Keil, 2000). Second, by using the UKC case as the basis, we have demonstrated how the approach-avoidance perspective could bring several escalation theories (e.g. self-justification, prospect, etc.) together to be combined into an overarching model. Until now, the approach-avoidance theory has been adopted only in field studies to investigate the escalation phenomenon in IS settings (Keil et al., 2000). This study represents one of the first in-depth case studies to use the theory to explore the escalation phenomenon within an IS project in a dynamic organizational setting. Third, our process model shows that a dual-level process perspective of project development could provide a greater explanatory power of how projects escalate and de-escalate. We acknowledge that the dual-level concept is still at an exploratory stage, but it may potentially emerge as a useful extension to the earlier work that focused on user analyst interaction episodes (Newman and Robey, 1992; Newman and Sabherwal, 1996) as critical incidents to explain process outcomes. Fourth, practitioners can also utilize the model in post-mortem analyses of projects that have faced
escalation to diagnose the issues surrounding escalation and devise useful de-escalation strategies for future project development. Finally, we believe our punctuated equilibrium model complements the existing stage-based model in providing an understanding and explanation into the escalation and de-escalation processes. Our model accounts for the revolutionary periods of rapid change that may be embedded in gradual incremental processes, thus providing an accurate reflection of today’s uncertain and rapidly changing project environments.

To establish the validity of the approach-avoidance process model proposed in this study, future research could apply the model to other project escalation and de-escalation contexts. As the existing approach-avoidance literature has generally considered only ‘desist’ as the single driver promoting avoidance, further research could explore other drivers. We posit that ‘ambiguity about a project’s future’ could be a strong possibility, since one could argue that a risk-averse decision maker may pull the plug on a project whose future is highly ambiguous. It is hoped that by identifying additional avoidance drivers, a more balanced assessment of approach-avoidance conflicts may be arrived at. Finally, more longitudinal field studies on project turnaround – especially those that involve in-depth case studies – are clearly called for, so that we may have a deeper understanding of the dynamics of the phenomena of project commitment escalation and de-escalation in various contexts.

References


Appendix A

Fig 2: The Approach-Avoidance Process Model of Escalation and De-escalation of Commitment as Applied to
the E-procurement Project at UKC
Antecedent Conditions
Project (Events)

**UKC** is a UK municipal borough with an elected council that serves a local population of 221,000 and provides a wide range of services. The idea of electronic government (e-government) originates from the central government’s 1999 White Paper, *Modernizing Government*, which challenged all public sector organizations to achieve “citizen-centered services” by integrating policies and programs, “joining-up” delivery, harnessing the power of IS, and getting the best out of staff.

The White Paper committed the government to the “use of new technology to meet the needs of citizens and business and not trail behind technology development”. The overall champion for the e-government initiative was the cabinet deputy of the council, who was assigned a special post known as the “E-Envoy”. His main responsibility was to propel the e-government initiative within UKC.

The e-procurement system was proposed due to reasons that included improving purchasing efficiency, setting up a cost control mechanism, and a strong desire to be the first local council in the UK to purchase goods and services electronically.

The council head gave full support for the project, and the 12-month project was launched in January 2001 with an initial estimated cost of £150,000. The project was headed by the IS Manager, who was supervised by an e-procurement committee formed by a group of senior directors within the council.

An external software vendor, selected through a bidding system, was tasked with developing the software. Other key stakeholders included the internal users of the system, such as the Chief Procurement Officer, the Corporate Service Manager, the Corporate Affairs Manager, the Technical Service Manager, and the E-Business Manager. External users included goods and services suppliers.

The project faced several problems during its early stages of development. The main problem concerned conflicts among the IS Project Manager, the users, and the IS contractor over design issues. On the other hand, the IS Project Manager and the IS contractor were dissatisfied with the indecisiveness of the users and pinpointed their frequent requests for design change as the main reason for the delay in project development.

Despite several meetings and discussions, the problem remained. In fact, the situation worsened when the volume of change intensified and became increasingly unmanageable.

The project initially stalled due to a disagreement between the users and the IS contractor. It started when the IS contractor demanded an additional £150,000 for “redesigning the software again”. Their reason was that since the contract price was predetermined, any changes to the software after the users had signed off a version of the prototype were chargeable. However, the users disagreed with the claim because they viewed those changes as alterations necessitated by the contractor’s mistakes, rather than additions that they were requesting.

**Table 2: A Summary of Events Illustrating the E-procurement Project Development at UKC**

<table>
<thead>
<tr>
<th>Level of Analysis</th>
<th>Event 1: Proposal to Develop the New System (Positive)</th>
<th>Event 2: Requirement Problems (Negative)</th>
<th>Event 3: Dispute over Design Changes (Negative)</th>
<th>Event 4: Request to Renegotiate the Contract (Negative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UKC</td>
<td>The e-procurement system was proposed due to reasons that included improving purchasing efficiency, setting up a cost control mechanism, and a strong desire to be the first local council in the UK to purchase goods and services electronically. The council head gave full support for the project, and the 12-month project was launched in January 2001 with an initial estimated cost of £150,000. The project was headed by the IS Manager, who was supervised by an e-procurement committee formed by a group of senior directors within the council. An external software vendor, selected through a bidding system, was tasked with developing the software. Other key stakeholders included the internal users of the system, such as the Chief Procurement Officer, the Corporate Service Manager, the Corporate Affairs Manager, the Technical Service Manager, and the E-Business Manager. External users included goods and services suppliers.</td>
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<td>Despite several meetings and discussions, the problem remained. In fact, the situation worsened when the volume of change intensified and became increasingly unmanageable. “The new version was even worse than the earlier one. They did not seem to understand what we really wanted.” (Corporate Service Manager, 15 March 2002, #UKC-8) “The users’ number of requests doubled from 25 to almost 50 per design meeting.” (IS analyst, 7 February 2002, #UKC-4)</td>
<td>The project initially stalled due to a disagreement between the users and the IS contractor. It started when the IS contractor demanded an additional £150,000 for “redesigning the software again”. Their reason was that since the contract price was predetermined, any changes to the software after the users had signed off a version of the prototype were chargeable. However, the users disagreed with the claim because they viewed those changes as alterations necessitated by the contractor’s mistakes, rather than additions that they were requesting. “They did not follow our initial requests and they were charging us for the mistakes they made?” (Chief Procurement Officer, 2 March 2002, #UKC-7)</td>
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Timeline

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<td>Budget: £150 000</td>
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<td>£150 000</td>
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*Table 2: A Summary of Events Illustrating the E-procurement Project Development at UKC*
Eventually, the e-procurement steering committee intervened and agreed to make the additional payment.

“What were we going to tell everybody if the project did not succeed? The stakes were very high and we could not disappoint them.” (IS Strategic Director, 15 January 2002, #UKC-2)

“We had to continue. We had to answer to our cabinet deputy.” (Corporate Service Director, 4 August 2002, #UKC-23)

“How could we give up? With all the resources invested, the option of reverting to buying packaged software was unimaginable.” (IS Project Manager, 4 July 2002, #UKC-13)

“The project was his baby. He would never give it up.” (Technical Manager, 14 July 2002, #UKC-16)

Refusing to continue with the troubled project, one of the users decided to blow the whistle on the project by reporting to the E-Envoy.

“I believed the involvement of the E-Envoy would resolve the entanglement. The committee and the Project Manager were too optimistic and irrational, from my perspective.” (Corporate Service Manager, 4 August 2002, #UKC-22)

The E-Envoy was informed and was surprised at the problems facing the project. He explained why the news came as a surprise to him.

“At the bi-monthly management meetings over the past few months, the committee members did not inform me of any critical problem arising. We were so close. It was too late to give up.” (E-Envoy, 30 July 2002, #UKC-20)

Immediately he halted project development indefinitely until a decision was made.

“IT was important for everyone to understand my standpoint, especially in that state of confusion. Besides, the project was highly critical to us. It was the next-generation way of running a local council. Furthermore, the central government expected us to be a role model in the e-procurement initiative in the UK.” (E-Envoy, 30 July 2002, #UKC-20)

To resolve the problems, the E-Envoy gathered all internal and external stakeholders, including representatives from the IS contractor and goods and services suppliers, to reaffirm his commitment to the project. He stated a strong desire for the project to be continued rather than abandoned.

“I simply assured them that no individuals would be punished in this project. I also stressed that we had to succeed at whatever cost.” (E-Envoy, 30 July 2002, #UKC-20)
Having identified the problems, the whole team started to explore alternative courses of action. The team proposed the adoption of a partial abandonment strategy, which was to reduce the original scope of the project without causing significant changes to its original specification. For that reason, three user departments were short-listed as pilot sites, hence allowing the IS Project Manager to deal with the needs of only three user departments rather than eight departments as before. Furthermore, the project was divided into three stages. Instead of implementing full-scale procurement functions all at once, the first stage would now focus on the front purchasing process which included only ordering, purchase orders issuance and items delivery.

"Reducing the scope certainly enhanced our chances of success." (E-Envoy, 30 July 2002, #UKC-20)

"With only three departments and the project divided into many stages, all of us felt confident that the first stage was within our reach." (IS Project Manager, 4 July 2002, #UKC-13)

Despite the change in attitude, the IS Project Manager conceded that it was a very difficult phase since users were still contemplating buying a new package software rather than revisiting the software development path again.

"It took several of us quite a while to restore confidence that a turnaround was indeed possible." (IS Project Manager, 4 July 2002, #UKC-13)

"Even though a lot of us appeared cooperative, I knew we were all lacking faith that the second time might work out." (Chief Procurement Officer, 28 August 2002, #UKC-18)

The E-Envoy ordered a stakeholder analysis before the rollout of the action plan. The purpose was to find out whether all internal and external constituencies fully supported the devised turnaround strategies. The E-Envoy reckoned that a new stakeholder analysis must be performed since the actors involved in the development process could still be strongly committed to the prior failing course of action. The e-procurement steering committee members carried out the stakeholder analysis. For those who still had doubts, the E-Envoy and committee members spent considerable effort to convince them.

"We simply made sure that everyone felt comfortable with the exit strategy. We also encouraged project members to discuss among themselves to see if the exit strategy was the best available option." (IS Strategic Director, 29 July 2002, #UKC-19)

When the first phase of the e-procurement system finally went ‘live’, the project was eight months behind schedule and close to £300,000 over its original budget. The relatively smooth implementation after the adoption of the de-escalation strategy meant that the crisis concerning the project was finally over.

One of the user managers commented, “With fewer users, things seemed to progress smoothly and quickly. I would think that everyone of us was determined to make it work. Even the contractor came to meetings two or three times a week. The new team seemed to show more enthusiasm and commitment. In addition, the committee’s close monitoring kept all of us on our toes.” (Chief Procurement Officer, 28 August 2002, #UKC-18)

All the changes were implemented immediately, and they produced remarkable results.

Table 2: A Summary of Events Illustrating the E-procurement Project Development at UKC (Cont’d)
By end 2000, there was a need to revamp the existing purchasing function in order to meet the target set within the e-government strategy plan that 100% of the goods purchased by the council had to be purchased electronically by 2005. Besides that, there were also other considerations for UKC to implement the e-procurement system. These reasons included improving purchasing efficiency, setting up a cost control mechanism, and a strong desire to be the first local council in the UK to purchase goods and services electronically. The project was predicted to save millions of pounds sterling annually. It was planned to be ready within a year.

During the annual audit conducted in the procurement department by an established external auditor, it was found that there were several deviations concerning work practices. Several of the existing practices were contradictory to the standard policy manual. Due to this, the policies in the standard manual had to be drastically modified.

The implication was that many more changes would have to be made. As a result, the volume of change intensified and became increasingly unmanageable. To make matters worse, user managers demanded to introduce two specialists from their departments who were more experienced than the existing project team in daily procurement transactions. The reason for their addition was to assist with the new changes.

“We needed to bring in people who were familiar with the policy changes and the daily purchasing operations.” (Corporate Service Manager, 4 August 2002, #UKC-22)

While the IS Project Manager and the IS analysts were still struggling to sort out the problems, the Finance Manager introduced into the project an accounting information system vendor who was interested in providing an e-purchasing module to be incorporated into the existing system used in the finance department.

The Chief Procurement Officer was interested and made arrangements with the software vendor to conduct a demonstration for other user managers.

“The software vendor promised that by switching to his recommended module, we could obtain more functions and a higher level of performance than the one that we were developing.” (Chief Procurement Officer, 28 August 2002, #UKC-18)

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<tr>
<th>Level of Analysis</th>
<th>Antecedent Conditions</th>
<th>Event 3: Annual Department Audit (Negative)</th>
<th>Event 6: Alternative E-purchasing Application (Negative)</th>
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Table 3: A Summary of Work-level Events that Intersected Project-level Events in the E-procurement Project at UKC
(Note: We number these “coordinating” events by using the same event number as the corresponding project-level events)
### Approach

**Cost of Withdrawal**
- Considered a failure by others
- Responsible to internal and external constituents
- Fear of recrimination

**Reward for Success**
- Increases purchasing efficiency
  - A good cost control mechanism
  - First local council in the UK to purchase goods and services electronically

**Proximity to Goal**
- Problems viewed as temporary
- Close to completion

**Ambiguity**
- Opportunity of investing in another project
- Clarified the magnitude of the problems
- E-Envoy was confident of a turnaround

**Avoidance**
- Political rivalry between the IS department and users
- Reassessment of problems
- Reduced project scope and a smaller stakeholder group

**Decision**
- Approach
- Approach
- Approach
- Approach
- Approach
- Approach
- Approach

### Table 4: Approach-Avoidance Attributes that Determined the E-procurement Project Trajectory at UKC