

Rescue Management of a Failed Project: An empirical case study of the Subordinate Expertise Empowerment (SEE) model

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This paper introduces a management model applied to rescue a failed digital documenting services contract involving a large multinational vendor, referred to as Vendor A (VA), a large university in the United States, referred to as X University (XU). The author's objective is to test the theory, in a case study setting, that a failed contract could be measurably salvaged through the real-time observed application of a rescue effort which emphasizes a Subordinate-Expert Empowerment (SEE) model in project rescue from its post-failure status. As a part of the literature review, an overview of project failure and varying rescue methodologies is given with an assessment of backgrounds, environments and strengths and weaknesses. Results of the study indicate the model's ability to address the difficult issues of complex contracts by placing subordinate expertise at the forefront of dilemmas to grapple with the intricacies involved in escalated scenarios. Support of the model's effectiveness was verified with a component listing of the resurrected project elements coupled with the survey results of all key individuals of the rescue process.

Keywords: Contract Rescue, Best Value, Contract Salvage, Project Management

Introduction

The subject of a poorly performing project is elusively difficult to address from a scholarly perspective. Such scenarios typically include environments of finger pointing, strained relationships, short tempers and even utter silence; all of which make the collection of credible data extremely difficult to conduct and understand. Equally difficult to analyze is the process of successfully correcting a failing project away from its inevitable path of failure towards one that has a semblance of success. What would seem obvious for such a change to succeed would be the role of effective management. However, what might not seem so obvious is the possible importance of the role of subordinate expertise in such a scenarios as well as the properly

administered relationship framework between the two parties in mitigating project dilemmas.

Project Failure

Ailing and Failing Projects

The study of elements in project crisis and failure has been researched for many years across various industries with the emphasis on understanding the reasons behind such events. (Nitihamyong & Skibniewski, 2006; Conboy, 2010; Nelson, 2007; Ivory & Alderman, 2005). Though not standardized by definition, the term failure in projects can range anywhere from performing below expectations in terms of cost, schedule and quality to being completely abandoned or cancelled. Reports over the past decade and a half show that varying levels of project failure are more clearly indicated by observing tasks involved across varying industries. For example, Information Technology-related failures reported at 18% (Tichy & Bascom, 2008) whereas in the Customer relations Management field of projects, rates have been as high as 60-80% (Kale, 2004; Foss, 2008). By comparison, software projects report an 11-15% cancellation rate (Eman, & Koru, 2008).

Strewn on these paths to failure are parallel histories of escalated attention, diverted resources and unsuccessful attempts to alleviate a growing list of cost, schedule and quality targets that have been missed. (Mahring & Keil, 2008; Pan, Pan & Flynn, 2004). Each venture has its own version of failing to meet the expectations of budgets, schedules or overall satisfaction by those involved.

Though many of the projects do not experience full-fledged termination, their tendency to fall short of the expectations is extensive. Technologically-related fields, for example, report this to vary between 40-53% (Eman & Koru, 2008; Tichy & Bascom, 2008). However, in a more general industry study of outsourced projects, it is shown that expectations failures are as much as 75% (Bryce & Useem 1998).

What is also notable is an increased tolerance, acceptance and even expectation by management that such projects perform poorly (Paul 2007). This point is illustrated in the construction industry disparities of project failure as outlined by Post. His research shows high perceptions of success rates in construction projects with relatively high rates of dissatisfaction in the management within the project (1998).

Fallout of Failure

Regardless of the outcome of a project or contract in the path to failure, there are two constants that remain. First, both supervisor and subordinates suffer losses due to the reallocation of efforts away from value-added tasks and towards defense/accusations surrounding the enforcement of the agreement. Secondly, in the mists of such delays, supervising groups still stand in need for services or goods both during and after such a failure.

Additionally, what goes without saying in escalated situations is that levels of stress, conflict, finger pointing and other tensions become a large part of the equation that is essential to address but difficult to measure. Ironically, the very reactions that managers have in failing projects make it so difficult and rare to measurably reverse in a live case example (Pan, Pan & Flynn, 2004; Montealegre & Keil, 2000). Equally difficult may be the prompt mobilization of sufficient resources to adequately assess the issues at hand between members of the project team and apply the preset process of such a model.

Overview of Managerial Rescue Models

The authors have made an express effort to explore and define documented studies that were available in the arena of poorly performing or failed contract redevelopment. Though much has been published on project formulation, protocol, litigation, mediation, arbitration and maintenance there are only a handful of studies found in the arena of rescues of failing contractual projects (Montealegre & Keil, 2000) and nothing was found in the area of cancelled projects being revitalized. This exhaustive search has been undertaken to outline various documented models to mitigate troubled contract scenarios between project members. Five such methodologies were found to fit such an approach which applications ranged across various industries and several countries throughout the world. These methodologies are presented below.

Performance Based Contracting (PBC)

A review of municipal transportation projects conducted by Hensher & Houghton with cities in Brazil, Chile, Australia, and New Zealand along with the theoretical application of the PBC model to detail relative benefits of market bid vs. negotiated awarding. Process for addressing the usefulness of various aspects of contractual agreements and their effectiveness. Areas addressed range from cost benchmarking, income sharing incentives, contract flexibility and even accountability. The purpose of the research was to help international observers to be better able to apply public policy in their transport arenas (2004). Though the model was tested, the results were not quantified academically and the impact of such a system is unknown.

Contract Management Capacity (CMC)

Stemmed from the debate of U.S. municipal and county contract failures and pitfalls, Brown and Potoski theorize in modular form a possible missing link in the discussion of how to improve a government's contract performance. It outlines how buyers may not be investing sufficient resources (or capacity) to oversee the proper administration of contracts between buyers and vendors. Key "capacities" are proposed to require strengthening such as Feasibility Assessment Capacity, Implementation Capacity and Evaluation Capacity which would in turn bring improvements in procured contract efficiency (2003). No actual tests of this model have been made as it is purely theoretical.

Victorian Government School Cleaning Contract Program (VGSCCP)

This model was developed in part by an Australian school district which focuses on the buyer's ability to enforce regulation and quality standards from facilities cleaning vendors. The model originated from another Australian government department but was modified and inserted into a scenario where the existing contractual relations had soured and the public outcry attracted a media spotlight to see the results of such a test. The model focuses on the qualifying of bidders with minimal standards to bid work and the formulation of compliance committees to oversee the approval and performance of such vendors (Howe & Landau 2009). This model has found notable results in improving the quality of the bidding vendors and success in the appeasing of public outcry. Weaknesses in the model stem from the lack of measurements in its process and the vast level of resources and oversight in order to maintain such a system.

The De-escalation Management Model (DMM)

The DMM model was structured by a team of scholars which worked to aid in the de-escalation of “runaway projects” related to information technology that have far surpassed the bounds of cost, schedule and quality in information technology-related fields. Derived from three prevailing methodologies of crisis management in projects, the DMM is proposed as a piece in the process of getting contracts back onto a desirable track towards possible rescue of the project. (Flynn, Pan, Keil, & Mahring, 2009). The model emphasizes proactive planning for deviations, encouragement of reporting bad news and disrupting commitment down undesirable paths in project management. It utilizes a cyclical flow of steps coupled with a rated level of commitment by the organization involved in the process of de-escalating such projects. Though not reportedly tested or applied to a specific case, it is likely that the elements of the model were tested in past case studies.

Enterprise Resource Planning (ERP)

The ERP model was derived from a case where a failing IT implementation project for a national beer brewery in China was rescued by senior management actions in an escalated project. Three key steps in the process included narrowing down the project management scope, the alignment of individuals with tasks that are needed and heightened oversight of the company's general manager through chairing weekly meetings (Kim Man Lui & Chan 2008). The ERP model relies heavily in the actions of upper management and a good deal of resources from the general manager in the conducting but emphasizes the ability for non-technically trained individuals to create environments of accountability and transparency in a high technical project.

The span of the reviewed literature reached across industrial, geographical and cultural boundaries in the authors' search for rescue models in projects. Industries vary widely ranging from transportation, information technology, custodial and general governmental purchasing which include both the procurement of goods and services. Geographically, the theoretical methodologies cover both North and South America, Australia, New Zealand and Asia and culturally, it spanned both eastern and western cultures.

Case Study Theory

As a preface to the analysis of the models, certain ground rules of case study theory would be helpful to review. This is due to the fact that exploratory research, interpretations of the relationship between empirical case studies, theoretical development and the application of models must be linked, analyzed and rated academically for their strength in validity. Theoretical behavior research blended with methodological constructs creates an abundance of models that can be used as fodder among theorists. However, these models gain their greatest validity via case studies where the process is tested with live subjects in real environments with documented results (Sullivan, Kashiwagi & Lines 2011). Whether applied from initiation or mid-project, it is this real test on live participants that gives the creation of a model its figurative breath of life (Lee, 1989). It is this inductive generalizability that methodologists not only accept as reliable research (Benbasat et al., 1987), but actually place greatest confidence in, where theory is both novel and limited (Eisenhardt, 1989; Lee & Baskerville, 2003). Langley articulates this relationship with the empirical and theory validation by stating that "theory development is a synthetic process. Whatever strategy is used, there will always be an uncodifiable step that relies on the insight and imagination of the researcher" (1999). The authors also accept that case studies differ in their own relative strength based on such variables as the timing of the model application, sufficient measurement of results and, where possible, accurate accounts of the initial conditions.

Comparative Case Study Analysis

After reviewing the methodologies, and their aim to repair problems in current relationships between actors in the project management process, it is found that their tactics vary in resource requirements greatly. The CMC, DMM and ERP, for example, require added regulation through oversight committees executive involvement and other capacities in order to minimize issues in administering contracts. This growth in supervision equates to added administration layers in the process as well as increased costs. On the preventative side, both the PBC and DMM take the stance that contractual issues that have potential risk should be addressed early on in the procurement process at the time before the award is made. This coincides with the generally accepted philosophy that problems should be dealt with as early on as possible to avoid them surfacing mid contract and costing more to mitigate (PMI 2008). With its focus on the negotiated award, it also addresses the potential benefits of working with vendor feedback in the development of workable contracts.

Strengths and weaknesses from the data given are also observed as follows. The CMC & DMM models, as it turns out, are purely theoretical in that they were not tested with any subjects. CMC is largely used as a hypothetical proposal from which governmental departments can draw from for addressing administrative issues in procurement and DMM, though compiled from elements of previously case-tested material, was not employed in any live setting for observation. The PBC model, though created and hypothetically modeled for the use of transportation agencies in specific countries, was also never inserted into a live setting for empirical observation. The VGSCCP example was both modeled and inserted into a specific environment between school administrative purchasers and vendors. Results of such modeling were notable but not academically quantified.

It is from such review that the authors have endeavored to create a working rescue model that can be inserted into an environment for empirical testing where the process and results can be quantifiably measured and academically reported. Such a setting is presented in the case between the purchasing client of one of the largest universities in the United States of America and its copy and digital documenting vendor, a multinational conglomerate corporation. The environment was such that the relationship and contract for digital documenting services would inevitably terminate under the existing set of conditions.

History and Failure of the Project

X University (XU) and Vendor A (VA) had created an agreement where XU would provide the campus venue and clientele with digital documenting needs and VA provides the services, equipment and network infrastructure to service their needs.

The XU organization consists of over 70,000 students and roughly 12,000 faculty and staff members over a span of four campuses, 17 internal colleges and over 200 serviceable buildings. Ranking within the top three largest schools in the U.S., XU's copy and document needs would cover the oversight of thousands of machines and millions of copy units per year (X University 2010). Interlaced among this scholastic structure is a framework of various campus software networks and databases from which the multifunctional documenting units would be digitally linked for counting, repairs and networking.

VA, on the other hand, is part of a multinational conglomerate, which is also based out of a foreign country location. It consists of just over 11,000 employees and has regional offices in every major metropolitan area in the US. In the field of digital documenting services, it competes with other companies such as Hewlett Packard, Xerox and Ricoh (Hoovers 2010).

Review of Original Agreement

The agreement began in September of 2006 with an original five year contract that could be renewed with five year increments over a 20 year period. Estimated yearly revenue streams were between \$2-3 Million. It is assumed that the contract was awarded in a standard and traditional manner based on buyers stating a scope and vendors competing based on marketing efforts. The terms and verbiage were kept simple on this 23-page contract with eight single sentence bullet points summarizing the responsibilities of each party.

Termination

The XU-VA contract ran for approximately 2 years and 3 months before it was officially terminated and later revised in its status to be suspended until further notice. Recorded details of the relationship and performance are sketchy at best. Over the life of the shortened contract there were 6 amendments added sporadically which grew the contract size from 23 to 144 pages. Additions varied from maintenance pricing clarifications to the giving of additional storage warehouses space for supplies. There seemed to be no quantifiable pattern of large scale decay

based on the changes to contract over the two years. Though vague in its description, studies in contract failures support the supposition that such problems are common across various industries and client-vendor relationships (Alchian & Demsetz 1972, Barthelemy 2003, Deming 1982, DiRomualdo & Gurbaxani 1998).

Rescue Management - Application of the SEE Model

An outline of the Subordinate Expert Empowerment rescue model is one that applies Best Value practices in contract management with additional features which address unique environment of a fledgling contract. These are listed below:

SEE Project Rescue Steps

1. Transition the project into a temporary "Safe Mode" during the rescue process
2. Baseline Assessment: Measurements of Feasibility & Reestablishment of Trust
3. Scope Realization Process Through Subordinate Expertise
4. Assessment of Risk and Mitigation Plan Development
5. Metrics Development of Revised Contract
6. Legal Translation & Amendment Protocol
7. Project Management by Risk Reporting and Mitigation

As a part of the decision to try to redeem the project, the university sought the help of a 3rd party research group known as the Performance Based Studies Research Group (PBSRG) that would act as an educator, advisor, liaison and mediator in the salvage process. During the research group's 18 years of existence at Arizona State University, it has formulated and tested performance based processes in contract purchasing, planning and administration. The more widely tested and complete model, commonly known as "Best Value", has been documented and tested in over 800 trials in the U.S. and abroad for procurement effectiveness in various industries such as construction related services, healthcare, food services, IT, Custodial, Furniture, and retail (Kashiwagi et al., 2012; Sullivan & Michael, 2008). A significant variation of the model's application is that the process was inserted midway through the relationship where both sides had exercised termination options due to poor performance and communication. Normal application of the more complete model would include the methodological identification and selection of the greatest source expert part for the project at hand (Kashiwagi, 2006). However, due to the current entrenched status of VA and XU, it was assumed that VA was the subordinate source expert in the project group.

Education and facilitation of the model method, principles and procedure were given by the research group from XU in the form of presentation, phone conference and face to face meetings with the four key members of the project team. Observed progress of the model process was documented in real-time annotations of each of the sessions conducted. Total education meeting time where interactions took place totaled 30.5 hours and the number of man hours contributed to such sessions was 193.25.

As illustrated in Figure 1, education of both parties in Best Value practice include areas such as useful and accurate self-measurement, application of metrics towards optimized administration and the shifting of risk, power and control in contract formulation and administration towards the subordinate-expert and away from the supervising party. Special care was also taken in maintaining as unbiased of a relationship as was possible in such a relationship between both parties as educators and facilitators (Burgess & Burgess, 1997; Badger, 2011).

During the education period, understanding of the SEE terminology and method is achieved by reducing the management relationship to its simplest forms. In its most abstract sense, the supervisory-subordinate relationship is found between individuals and groups in the form of relationships such as client-vendor, boss-employee, owner-contractor, officer-private, teacher-student, and even parent-child. For this reason, labeling terms like vendor and contractor are used in this literature interchangeably with subordinate whereas other titles such as client, buyer or owner are interchangeable with supervisor. In the realm of professional relationships, two assumptions are made on which the model is based. These are given as follows:

1. The subordinate party has contributing value and expertise contributing to the project goal
2. Optimization is achieved when the supervising party (i.e.: buyer, client, boss or other supervisor) facilitates the path for the subordinate (vendor, contractor, employee or other subordinate) without trying to direct and control them away from the path that the expert knows is correct.

The Rescue Model in Practice

Project "Safe Mode"

Both parties agreed to put the contract into a transitional "Safe Mode" where basic transactions were maintained while discussion and negotiations took place towards what was to become a resurrecting monumental amendment. Regular meetings between the liaison and each party were scheduled between two and three times per week where progressive steps in the salvage process were carried out over the period of appropriately 12 months. Initially, meetings were solely with each party and the educator but as the process progressed meetings with all three parties were held to discuss the scope realization, Development of Metrics and Agreement Flexibility as well as amendment finalization. The salvage of such a contract required the following of steps where each step represents a phase or milestone part of the salvage process that not only mitigated the initial impasse but also plotted a future route away from common pitfalls of unsatisfactory agreements. Figure 2 illustrates the model's high reliance on the expertise of the individuals or collective subordinate-expertise empowerment group that falls most within the following criteria:

- Has the best comprehension of the needs and risks of carrying out the successful implementation of the project intentions
- Has the most experience in providing solutions to the complex problems within the project
- Has the most time to spend on mitigating risks in project
- Has the most at stake for success or failure of project

- Greatest expertise in the project industry
- Highest exposure (in terms of time) to the project progress status
- Closest proximity to the project status
- Draws on vendor/subordinate expertise to address project complexities and effectively communicate key project information to the team involved
- Has most experience in understanding which individuals or other obstructions are in the way of the team's ability to maintain project quality, schedule and costs

Though in supervisory/subordinate scenarios there may be clear cases where the client, buyer, boss or supervisor would possess higher levels of some of the above points. However, as a general rule, the group that has the highest level of each and all of the points would tend to be the empowered vendor/subordinate.

As a part of the SEE model, it is assumed that the selected subordinate has that experience and expertise and thus, is commissioned to direct the formulation of the agreement requirements as well as show their fulfillment through accurate means. On the other end, the supervisory party, in this case, the client representatives, must effectively play the role of a facilitator of the project success and not the directing and controlling force.

Baseline Assessment: Measurements of Feasibility & Reestablishment of Trust

A logical beginning of a Project salvage attempt is to initiate a reassessment and healing period where both parties have a chance to vent their frustrations and mistakes of the past and lay a more firm foundation of trust between themselves. Questions by the educator were brought up asking "what should have been done differently" or even "should we have even had such an agreement". It also allowed time for both sides to reevaluate the environment of what they had to offer and what was hoped to be gained from an agreement over the 5 - 20 year term of the contract that would be balanced to both sides over the span. Ultimately, the purpose of this phase was to regain a level of trust and perspective that would allow for confidence in negotiability without the careless oversight of the initial contract (Mellewigt et al., 2007). This reestablishment of trust is an integral part of resetting the direction and diminishing relations from its escalated course (Bass, 1994; Mezirow, 2000; Barthelemy, 2001; Deming, 1982).

Scope Realization Process using SEE constructs

As stated earlier, one of the fundamental differences in the subordinate expert empowered model stems from how the stage is set in the supervisor-subordinate relationship. This is where the scopes of traditional competitively outsourced contract are dictated by supervisors in the request for proposal and the buyer is expected to follow all of the ordered instructions as shown in Figure 3.

With the SEE model, the buyer illustrates what they want in an agreement in the form of an intent statement. This is an open ended aspiration of the buyer coupled with cost and schedule restraints that is to be reviewed and adjusted by the vendor as needed towards optimizing

delivery. With this concept, illustrated in Figure 4, the customer may have a specific idea of what they want in terms of goods and services but lack the expertise in knowing how and when it can be accomplished in the most efficient way (DiRomualdo, 1998). It is also not uncommon that the buyer does not know if their desired scope is even possible given the budgetary and logistic constraints that they have. The end result of this process is that the vendor in essence is empowered to write the scope which becomes a part of the contract. An illustration of this is directing flow is also demonstrated in Figure 3.

Assessment of Risk and Mitigation Plan Development

As an extension of the scope realization, the vendor is also asked to outline any risks in a project that could possibly obstruct them from fulfilling their part of the agreement. Specifically, they are required focus in on any risks that they don't directly control and outline a mitigation plan as to how these potential problems could be diffused either before or in the event that they occur. This Vendor-written scope and mitigation plan become a part of the contract agreement. (Kashiwagi, 2006).

Metrics Development

Critical to the success of a contract is a means to simply and accurately display the compliance of the vendor-written scope and mitigation plan. There needs to be a regularly established set of measurements that both parties understand and can follow to assure that the contract is being fulfilled (Alchian & Demsetz, 1972; Mc Chesney, 1982). Obviously the tracking and allocating of financial figures are a fundamental starting point that is followed closely by both sides in order to gauge performance. Further metrics are added in a periodic display of acceptable levels of quality in goods and services which again are displayed to both parties. Finally, a schedule is outlined as to when such transactions and quality levels will be reported.

Although such measurements and planning are in no way new to contract development, the paradigm shift in this model is that it is the vendor party that takes the reins in outlining them as well as warranting compliance. They are given the responsibility to create a means of displaying its own worth via periodic quality reporting, scheduled milestones of activity and, of course, financial reporting. This information is then outlined and agreed upon by both parties as a part of the contract development. However, when the vendor is given the contract and told to create their own level of quality, vendor performance and accountability have been theorized to benefit the customer.

Added into the measurement of the contract performance, is the planned periodic adjustment of its scope as needed through the life of the agreement. This flexibility must be built into the development process allowing both parties to make incremental adjustments to their agreement addressing unforeseen yet relevant issues and the arrangements to accommodate them (Harrison, 2004).

Legal Translation & Amendment Protocol

A final element of the contract formulation covers the legal description of the agreed elements of the contract. Once again, this is written by the vendor and negotiated between both parties until an acceptable verbiage is accomplished. Though this model does not address a specific sequence of translating the agreed requirements to descriptive legal jargon, it is considered a standard and required step towards finalizing the agreement. It is worth noting, however, that such traditional legalistic jargon does not effectively dictate what is to be carried out in agreements (Larson, 1992). It does serve as a safety net in the event of arbitration or litigation. The end result is a contract that is predominantly created by the vendor which consists of both a legalese and clearly described version of the agreement in addition to the metrical description of how the elements will be certified by the vendor to the customer.

Risk Management Administration of Amended Agreement

Upon final agreement and signing of a contract to be salvaged, a capstone element of the model is the process of inspection, compliance and enforcement through the scheduled periodic reporting of risks by the vendor. By allowing the Vendor to have an empowered part in creating the schedule, scope, risk plan and other measurable, compliance to such a baseline becomes more fully owned by the vendor and, therefore, more likely to occur (Kashiwagi, 2008). Also, because of the active role that they play, it is in their best interest to prove their competency through a high level of maintenance according to the agreement. Lastly, risk reporting also gives the vendors a voice to document instances where the customer may not be keeping their end of the bargain and thus negatively affecting their ability to perform.

Results

Following the steps in the model, a creation of a SEE-created agreement which optimized XU's vast and complex digital documenting environment. By allowing the most expert party of the group to plan for and grapple with the complex environmental factors without the excessive oversight of the supervising party as displayed in Figure 2. Validation of the results of utilizing SEE are divided into two sections which analyze measured results through observed changes in the team relationship structure as well as surveyed perceptions of the members involved in the intervened change process.

Post-Salvage Signing Analysis: Qualitative and Quantitative Perspectives

Initially three pronged assessment was made by VA of the XU environment in terms of units on campus, environmental goals of the university as well as the financial goals of the existing internal copy/print staff. Specific figure counts of such things as overall profitability, unit amounts, types, ages and networkability were assessed by the vendor. This stage of development, which took several months of weekly meeting with both parties listening to the client's needs while simultaneously creating a strategic plan, allowed for sufficient healing of the relationship to the point where a feasible scope could be developed.

Subordinate-outlined risks were addressed in several areas including the university's ability to adapt to more environmentally friendly usage patterns, XU's current funding constraints due to the struggling economy and restructuring of existing staff members within the university. A mitigation plan was then included in the contract addressing each of the major risks so that the results would be more predictive. The plan included scheduled phases of XU's progress in embracing the new digitally linked system and the steps that were needed by the university in order to achieve its highest sustainability goal, referred to as a "utility model", where full transfer was made of units. An eminent risk with existing XU-related staff becoming lost in the transition and possibly behaving detrimentally to the agreement was handled by expressly outlining the roles of those employees through the transition period. These roles were clearly defined by the vendor so that the subordinate expertise and utility could be maximized without leaving the school in the dark to figure out what to do with employees that are to be outsourced.

Through this assessment of risks and the university's environment, VA was able to formulate an agreement that addressed three key areas. These were financial, operational and environmental. Within these three fields, several metrics were established by the vendor in order to measure both the initial status of the university as well as its progress throughout the life of the agreement. Also included in this agreement were periodic meetings to assess the contracts overall performance and make adjustments as needed. This type of flexibility would allow for unforeseen events to have a process already set for being addressed.

The rescued contract verbiage was implemented as an amendment which virtually revamped the whole previous document in July of 2010. This modification, which came to be known as the "Super Amendment", consisted of approximately 20 pages of textual and table agreement items. Other peripheral additions, by legal and corporate level reviewers, included 46 pages of price listings, model descriptions and legalistic verbiage. A summary of the major measurable points of change that occurred resulting from the subordinate empowered model are outlined in Table 1.

Qualitative Survey and Interview data

Post amendment surveys were created to gauge the newly perceived effectiveness of the salvaged contract's ability to successfully address key areas such as risk identification and mitigation, financial clarity, university environmental awareness goals and measured performance. These queries were given through extensive conversations and interviews with all four head members of the negotiation and operations teams on both Client and Vendor sides. Specific questions were asked to four key participants in the project on the perceived future effectiveness of the salvaged version of the contract as compared to the original created with a more traditional model. These questions covered twelve key areas of project evaluation and outlook to be measured to define the increase in performance. Results of the surveys are summarized in Appendix 1.

Overall, 12 quantitative questions were asked to the administrators where their answers were listed numerically between 1 and 10 (1 being the lowest and 10 the highest). Average scores in the "Before" column total 3.29 which would be considered very low compared to the "After"

column of 8.05 showing a substantial increase in scores by 4.76 summarized average. Areas that showed substantial increases were in Scheduling, Operations and Environmental awareness which all had an increase of 5.5 rating points or greater. Other notable references in score increases are found in the categories of financials, performance being measured, risk mitigation and predictability of the outcomes.

Post Interviews and meeting quotes that were taken over the period of the salvage process appeared to be enthusiastic about the increased effectiveness that such a method made. Contrasting the before and after periods of the salvage, one university purchasing executive who played a part in the previous attempts to save the original contract stated, "If we had run this through another [traditional] request for proposal, it would have failed again...The previous contract was not measurable or sustainable." The vendor's representative of the negotiation process stated that this process allowed both parties to "work together and create a mutually beneficial agreement". He later included the benefits of giving the vendor such freedom and responsibility "removed several key obstacles [in]...navigating through a very difficult process. The end was a predictable contract that holds both parties accountable." The operations representative from the vendor, who participated in the final months of the negotiations, commented that this process was "successful at making [ourselves] write the contract and taking on the risks..." These recorded comments help to verify that such a method of allowing vendors to show their worth in contract creation is desirable and efficient by both the vendor and client.

A final analysis of the five distinct project methodologies is given with a sixth model (being the Subordinate Expertise Empowerment model) inserted for comparative purposes. Areas of comparison include whether the model's were theory based, case studied, point of application as well as various means of validation, as shown on Appendix 1. It is worth noting that this comparison demonstrates that only two of six models were actually applied into a live case study where quantitative analysis was taken and only half of the models measured any type of impact of effectiveness.

Discussion

This document was intended to empirically test the hypothesis that a poorly performing contract could be measurably improved upon through the application of a salvage model which emphasizes the subordinate-expert empowerment quality in contract rescue. Results of such a study have shown favorable observations from both the buyer and vendor as the traditional role of each part is altered.

To aid in the review and discussion of the results, a comparative table was created which showed the areas that such a model address in comparison to other reviewed models for contract improvement. Through this appraisal, as shown in Table 1, comparative strengths and weaknesses of each model can be assessed with reference to their ability to measure the effective results of such applications.

Though a variation of the model had been extensively tested with positive results in new buyer-

vendor contracts where initial conditions were more strongly controlled, such a test as this paper presents can only be considered as one data point in addressing the vast arena of salvaging contracts that are currently performing poorly.

Further research is encouraged in the area of vendor conducted agreements where this model could be utilized to not only salvage ailing but also refurbish contracts that are not performing as well as expected. This principle may also be elaborated upon in the relationship between a supervisor and subordinate parties in the effort to accomplish tasks at hand where the subordinate party is given greater direction and empowerment based on the supervisory needs.

Conclusion

The purpose of this article was to test the application of a project management model in a case study environment of a failed project. The model emphasized the importance of empowerment of and reliance upon subordinate expertise in managed project environments in order to optimize overall success and performance of ailing systems. The successful achievement of such a test is supported by both the salvage of the agreement as well as the surveyed results of key members of both parties measuring the successful turnaround of such a model. The unique variation of the model from its more common and traditional use is the emphasis of Subordinate-Expertise Empowerment (SEE) where the more full management of project complexities and communication issues are given to the subordinate expert party which consists of the vendor, contractor or other subordinate party that has the most expertise, proximity, time and stake in the success or failure of the project.

The favorable results of such a test help to build further understanding of the application improved managerial practices as they relate to the interactive relationship between supervisory and subordinate members. Of specific note with this empirical study, is the application of having management give further autonomy, trust and empowerment to the subordinate-vendor party so that the optimization can occur in a managed environment. The results also help to give the call for further applied tests that help to expand the efficiency, success and paradigm of applied management with more dynamic solutions. (Bosch-Rekvelde, M., et al., 2010; Williams, 1999).

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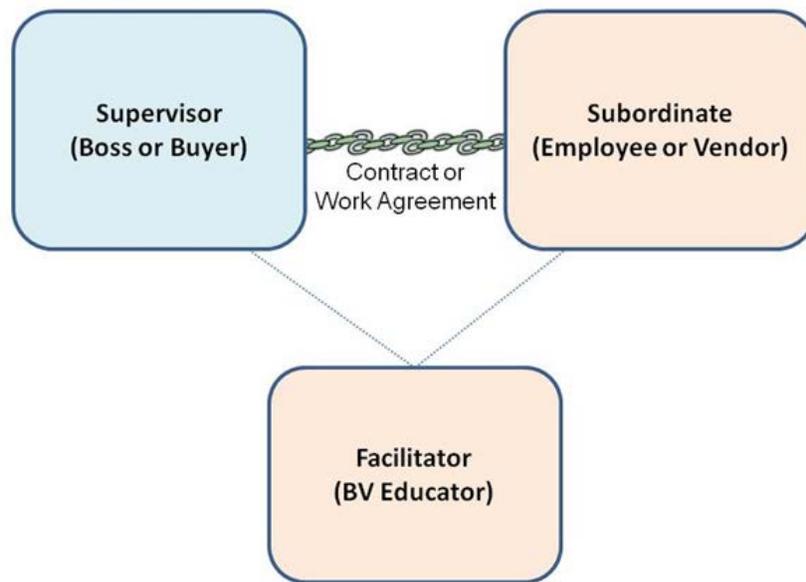


Figure 1: Best Value Educator Role in Rescue Process

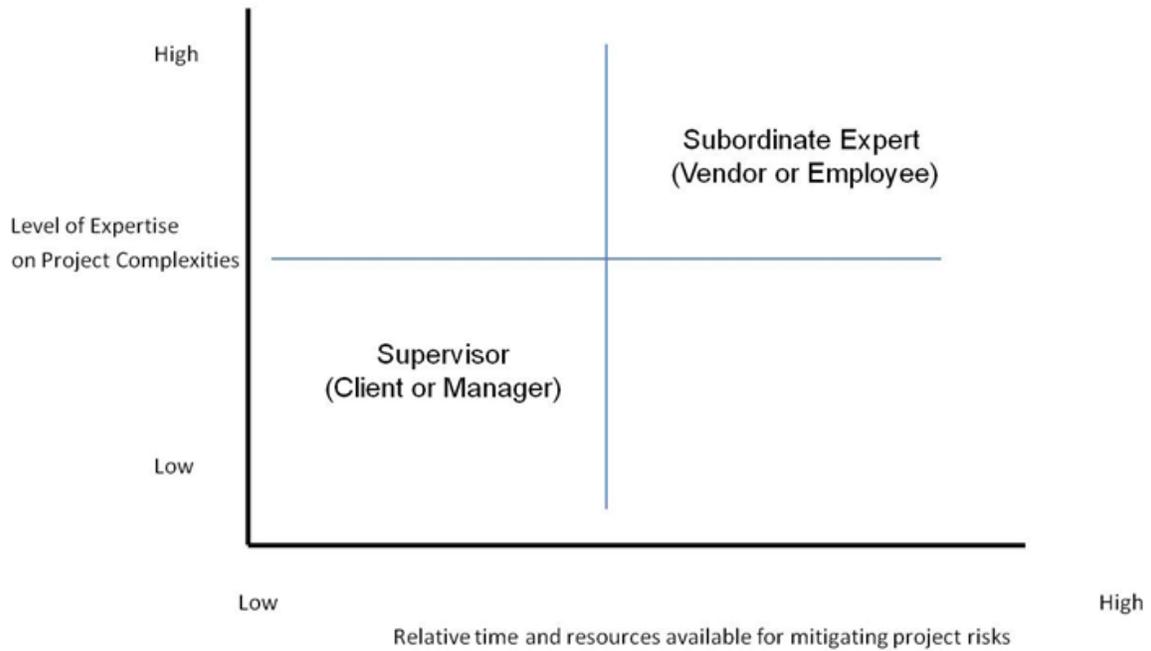


Figure 2: Alignment of Expertise with Resources in Project Management

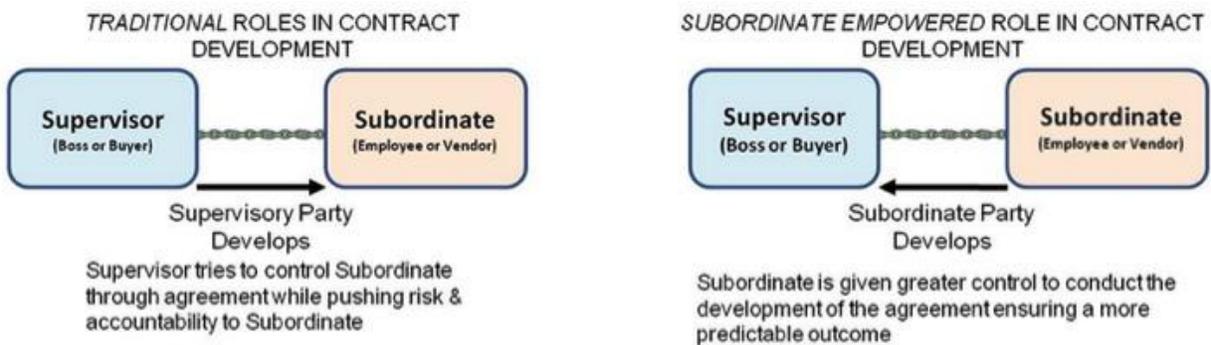


Figure 3: Traditional vs. SEE Model in Contract Development

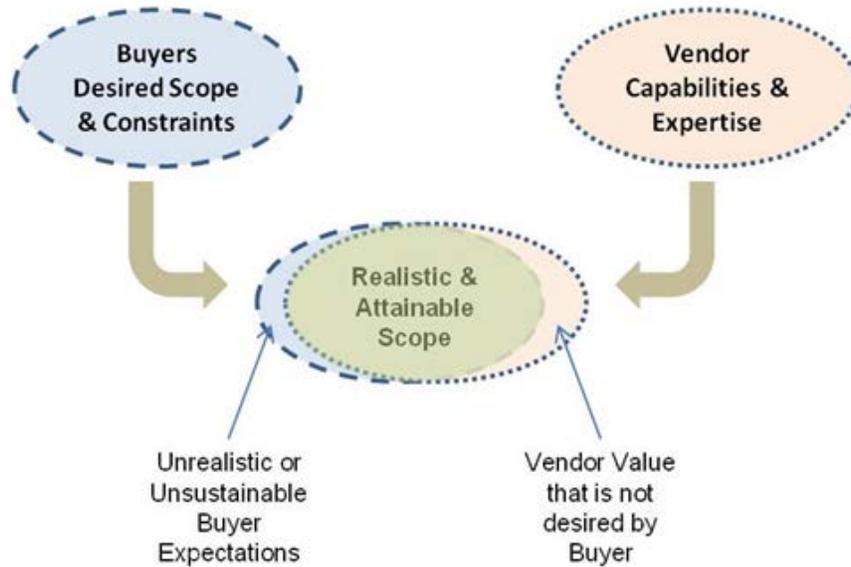


Figure 4: Scope Realization by Subordinate Expert Empowerment (SEE)

Table 1

Project Improvement Model Comparison

| CRITERIA | PBC | SEE | CMC | VGS CCP | DMM | ERP |
|---|-----|-----|-----|------------|-----|-----|
| Theory Based | X | X | X | | X | X |
| Applied at Beginning of Modified Contract | X | X | | X | | X |
| Quantitative Analysis Established | | X | | | | |
| Draws on Vendor (Subordinate) Expertise to Address Complex Contract Issues | | X | | X | | |
| Model Inserted in Mid-Contract Period | | X | | | | |
| Impact of Model Assessed | | X | | X | | X |

Appendix 1: Post Contract Signing Survey Results

IDENTIFYING QUESTIONS COMPARING RESCUE IMPACT: PRE MODEL VS. POST MODEL (RANKING 1-10)

- 1 Identifying Potential Risks in the contract relationship
- 2 Mitigating of the Potential Risks in the contract
- 3 Scheduling
- 4 Expectations of Outcomes in contract

- 5 Measurement of Performance
- 6 Baseline
- 7 Operationally
- 8 Environmentally
- 9 Financially
- 10 Confidence level in moving forward
- 11 Predictability of future outcomes in contract
- 12 Agreements ability to be flexible in addressing unforeseen changes of the future

| | Bob | | Sam | | Rick | | Don | | <i>Ave.</i> | | <i>Model Impact</i> |
|----------|-------------|-------------|------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|---------------------|
| # | Pre. | Post | Pre | Post | Pre. | Post | Pre | Post | <i>Pre</i> | <i>Post</i> | <i>Pre/Post</i> |
| 1. | 9 | 8 | 3 | 8 | 1 | 7 | 2.5 | 7 | 3.9 | 7.5 | +192% |
| 2. | 8 | 8 | 3 | 8 | 1 | 7 | 2 | 7.5 | 3.5 | 7.6 | +217% |
| 3. | 5 | 9 | 2 | 9 | 1 | 8 | 3 | 8 | 2.8 | 8.5 | +304% |
| 4. | 6 | 9 | 3 | 8 | 2 | 8 | 2 | 8 | 3.3 | 8.3 | +252% |
| 5. | 6 | 8 | 3 | 8 | 1 | 9 | 2.5 | 7.5 | 3.1 | 8.1 | +261% |
| 6. | 6 | 8 | 2 | 9 | 2 | 9 | 2 | 8 | 3.0 | 8.5 | +283% |
| 7. | 6 | 8 | 3 | 8 | 1 | 8 | 1 | 9 | 2.8 | 8.3 | +296% |
| 8. | 5 | 10 | 2 | 9 | 1 | 7 | 2 | 8 | 2.5 | 8.5 | +340% |
| 9. | 8 | 9 | 2 | 9 | 3 | 9 | 3 | 8 | 4.0 | 8.8 | +220% |
| 10. | 8 | 8 | 3 | 8 | 1 | 7 | 3 | 7.5 | 3.8 | 7.6 | +200% |
| 11. | 4 | 8 | 3 | 9 | 1 | 8 | 3 | 7 | 2.8 | 8.0 | +286% |
| 12. | 9 | 4 | 2 | 9 | 3 | 8 | 3 | 7 | 4.3 | 7.0 | +163% |