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A Model for the Creation of Shared Assumptions and Effective Preplanning

Jake Smithwick
Project Manager
Jake.Smithwick@asu.edu

Tom Shultz
Director of Facilities
Intermediate School District 287
Plymouth, Minnesota USA

Kenneth Sullivan
Associate Professor
Arizona State University
Tempe, Arizona USA

Dean Kashiwagi
Professor
Arizona State University
Tempe, Arizona USA

ABSTRACT

The authors have observed consistent breakdowns in performance across a multitude of organizations. This is especially true in construction, where a misalignment of expectations causes project deviation. The risk of cost overruns and delays increases as the overall project size and complexity also increase. Facility Managers may see the differences in organizational culture of suppliers impact the performance of their projects.

Intermediate School District 287, in Plymouth, Minnesota, constructed the $22.1M North Education Center (NEC) in August 2012. Four years prior, they built the South Education Center (SEC), and yet, the overall performance of the two projects was markedly different. The NEC was procured and managed with the best value contract management methodology, while the SEC was procured through a traditional bid approach (design-bid-build, with construction management supervision). Though both facilities were similar in scope and size, the NEC had much higher performance: 74 percent fewer change orders, 40 percent less contingency used, and the owner rated the best value contract management process 9.7 out of 10.

The primary objective of this paper is to provide an analysis of the Best Value Business Model (BVM) as a tool to align organizational culture differences. The model provides a structured planning and meeting phase to help all parties develop common performance expectations, in accordance with the expert's vision for the project.

INTRODUCTION

Project teams can sometimes deliver projects without a plan. This behavior is not limited to just facilities and construction, and can be readily observed in many industries. Planning is difficult and may require the project leader to stop an effort, in spite of considerable political and financial pressure. Planning might also be minimized (or skipped altogether) due to the natural human behavior of 'jumping in' on the latest new project. Most people will probably agree that planning is a good project management tool. And yet, projects are completed over budget, behind schedule, and with low customer satisfaction. When a plan is not in place, 'unforeseen' project challenges will force the project leader or owner to make decisions, for which they may have not sufficient expertise, in an expedited manner. As a result of this decision making, risk increases.

The authors propose that a formal vendor selection, pre-preplanning, and contract management structure is needed to minimize decision making while aligning the most highly qualified expertise on the project. This paper first presents a literature review of the underpinnings to successful integration of diverse project teams, and provides a linkage between organizational culture and effective project pre-planning. The best value business model (BVM) is then proposed as a tool that helps the owner to minimize decision making and establish an effective preplanning process. The paper closes with a comparative case study that shows the best value project has fewer change orders (as compared to the traditional project). The results are validated by comparing to similar projects external to the subject project.

LITERATURE REVIEW

The authors have observed consistent breakdowns in performance across a multitude of organizations. This is especially true in construction, where a misalignment of expectations causes delays and cost overruns (Bosch-Rekveldt, Jongkind, Mooi, Bakker, & Verbraeck, 2011; Heijmans & Hyland, 2012). The risk of cost overruns and delays increases as the overall project size and complexity also increase (Benta, Podean, & Mircean, 2011). The first part of this review looks at organizational culture and the impact individuals' preexisting beliefs have on the successful integration a project team. The review closes with a discussion of preplanning in consideration of the diverse backgrounds of a project team.

Organizational Culture

An organization is simply a group of people with a common purpose, who are defined by their common underlying values (Denison & Spreitzer, 1991). Much literature has been written describing the traits of an organization. Members of an organization typically share the following characteristics:

- Common beliefs or understanding concerning their industry or societal position (Becker & Geer, 1957)
- Established patterns which dictate how the group behaves (Kroeber & Kluckhohn, 1963; Swartz & Jordan, 1980; Van Maanen & Schein, 2003)
- Consistent interpretation of a situation (Louis, 1981)
- Processes, values, and nomenclature that make people feel part of the larger organization (Martin & Siehl, 1983)

The challenge for project leaders, then, is to find ways to integrate individual people into the overall project's goals. A project team may be a 'team' in name only: just because people are assigned to a project does not mean they are a cohesive, efficient group. A facilities project may be compromised architects, constructors, and various owner representatives. And yet, there can be very different underlying expectations of a project's scope, risk, and cost.

Large organizations are divided into smaller units. As each group grows and becomes more comfortable with itself, it develops its own unique language, standards, norms, and so on (Schein, 1993). That is, the unit has formed its own subculture. Consequently, integrating multiple units within a large organization is

challenging. This challenge is also observed when internal units interact with external organizations. The more diverse an organization, the more difficult it is to integrate its underlying subcultures.

Schein (1993) suggests that intentional effort by individual members to better understand each other's perception of reality will lead to more timely achievement of a particular goal. Over time, individuals may realize that their own beliefs or cultural norms may be the hindrance to progress. This realization is achieved by understanding other people better. Therefore, Schein (1993) suggests that the team must have a facilitated discussion to uncover some basic assumptions of the group, before starting any new project or endeavor. This discussion should be structured so that a common set of beliefs for this new group can be established. This discussion is the basis of preplanning.

Preplanning in the context of different organizational cultures

Preproject planning is a "…process encompassing all the tasks between project initiation and the beginning of detailed design. It begins with a project concept to meet a business need and ends with a decision whether to proceed with detailed design of the proposed project." (Gibson, Wang, Cho, & Pappas, 2006, p. 35). While this definition is in a construction context, the main premise can be extended to facilities or other types of projects: make a plan before moving forward with technical details and implementation. A project team should preplan to develop enough information to make a sound judgment on whether continuing with the project actually makes sense (CII, 1994).

The importance of preplanning is related to the fact that final cost has not yet been determined. It is easier for a team to adjust cost at the beginning of a project, as compared to a reactive approach halfway through, or at the end of, a project (Gibson *et al.*, 2006; CII, 1995). For example, consider a new capital project whose constructability depends on the completion of related, but separate, projects. It is much easier to develop an accurate scope, time, and cost of the new capital project if the key stakeholders of the supporting projects are involved, up front. When planning is not done, overall cost is higher because of rework, employee morale decreases, and projects take longer (O'Connor & Vickroy 1986; Merrow & Yarossi 1994). While preplanning is generally accepted as a best practice, organizations do not always put forth the effort required. The reasons vary, but there are three primary challenges that prevent organizations from performing effective preplanning:

1. They do not understand the importance of preplanning, and its impact on overall project performance (Gibson *et al.*, 2006).
2. They realize they should preplan, but they simply do not have the skills or expertise to implement (Gibson *et al.*, 2006).
3. The project team is not well aligned. That is, they do not have a mutual understanding of what each person's expectations of the project are, or, people may not be assigned to the task that they are best suited to perform (Griffith & Gibson, 2001).

Project teams should strive to understand and develop their organizational culture: creation of shared assumptions, understanding of integration with various parties, and documentation of the plan so that new future team members will not have to relearn the culture (Schein, 2010). Alignment is achieved by ensuring appropriate stakeholder representation on the project team; timely and productive team meetings; trust, honesty, and shared values that foster team culture; and effective use of planning tools (Griffith & Gibson, 2001). A formal meeting should be held to uncover each stakeholder's quantifiable perceptions of a successful project (Villachica, Stone, & Endicott, 2004).

VALUE-BASED PREPLANNING AND CONTRACT MANAGEMENT MODEL

The Best Value Business Model (BVM) is a formal structure that considers both price and performance factors (Kashiwagi, 2012). The model contains three phases: selection, clarification, and risk management (see Figure 1). The selection phase evaluates proposers on multiple cost and performance criteria. At the completion of the

selection phase, one "potential best value" firm is invited to the clarification phase. The firm will clarify their proposal and address any concerns that the owner may have. Once all issues have been resolved, the contract is signed and the project moves into the risk management phase. Any deviations to the baseline expectation (developed during the clarification phase) are tracked and documented.

Figure 1 Phases of the BVM (adapted from Kashiwagi, 2012).

The following section will briefly review of each of the phases, with an emphasis on the clarification phase. The model is based on Kashiwagi's (2012) best value approach, but the focus is on the specific impact organizational culture has on achieving project success.

Selection

On many projects, the selection phase is divided into an initial stage and a shortlisting stage. During the initial stage, interested proposers submit information in accordance with the specified criteria in the Request for Proposals (RFP). The evaluation criteria are flexible and may be adjusted to include requirements from the owner's organization. After an evaluation committee rates the scores, a shortlist may be conducted. All shortlisted firms will then be interviewed. Table 1 presents summarizes the evaluation criteria, typical weight, and the stage utilized.

Table 1 - *Typical evaluation criteria in the best value model*

Criterion	Description	Weight (points)	Stage
Interview	Individual interviews with key person(s) from a proposer's team.	350	Shortlist
Cost	Cost factors provided from each proposer	250	Initial
Risk Plan	Issues that the proposer feels would stop the project from being successful. Each risk is supported with a solution to minimize the risk.	150	Initial
Project Capability	Capability and resources that the proposer has to meet the requirements of the client.	100	Initial
Value Added	Ideas outside of the scope; ways to save money	100	Initial
Past Performance Information	Satisfaction surveys from a proposer's past clients (numeric 1-10 responses)	50	Initial

Clarification

The clarification phase is a structured process to help the owner fully understand the potential best value firm's offer. The potential best value firm must clearly explain their offer, how they know their plan will be successful, and how they will minimize risk. The clarification phase is comprised of three stages:

1. Kickoff meeting – All key client stakeholders attend a presentation by the potential best value firm. The firm will identify their milestone schedule, risk in that schedule, scope, cost, and client action items. Once the presentation is completed, the client team will identify any concerns they have or areas that they want more information. Minutes will be prepared and distributed after the meeting's conclusion. It is at this meeting that the project stakeholders begin to understand the performance expectations of each member on the project.
2. Clarification and discussion – After a successful kickoff meeting, the firm will address any items that need further clarification, analyze additional information from the client, finalize the scope, and other related activities. The client must provide, as they are able, any additional information that is requested by the firm. All activities and meetings are coordinated according to the clarification phase schedule the firm provided at the kick meeting. Once all deliverable are finalized, they will be inserted into the contract. The firm prepares the offer, and the client must accept or reject this offer. Thus, in order for a client to accept the offer, it must contain any requirements that the client has stipulated.
3. Summary meeting – Once the final contract is ready for signing, the firm will conduct a summary meeting. This brief meeting summarizes all major portions of the contract. There should be no further questions or changes at this meeting (if there are unresolved issues, this meeting should be postponed). Upon successful completion of the summary meeting, the contract will be signed and work commences.

During the kickoff meeting, the owner and their representative should have a clear understanding of what the best value firm is offering. If the firm's proposal matches up closely with the owner's intent, the clarification phase will continue. Areas that do not align will be further clarified. The basic tenet of the BVM is that the owner accepts the expert's offer; therefore, any alignment will need to come from the owner or A/E. The reason is that the clarification phase is not a 'negotiation' period. It is simply a time for all parties to understand what the expert's plan is. In the rare instance that the vendor's offer is completely outside the expectation of what was requested, the owner has the option to go with another firm.

The fundamental challenge during the clarification phase is aligning the expectations all parties have of each other (see Figure 2). The owner may expect the vendor to include certain activities as part of their scope, while the firm may perceive these same activities as "risk," and therefore did not include it as part of their base proposal. Of course, if the given tasks were identified as part of the client's baseline requirement, the vendor must include them as part of their base cost.

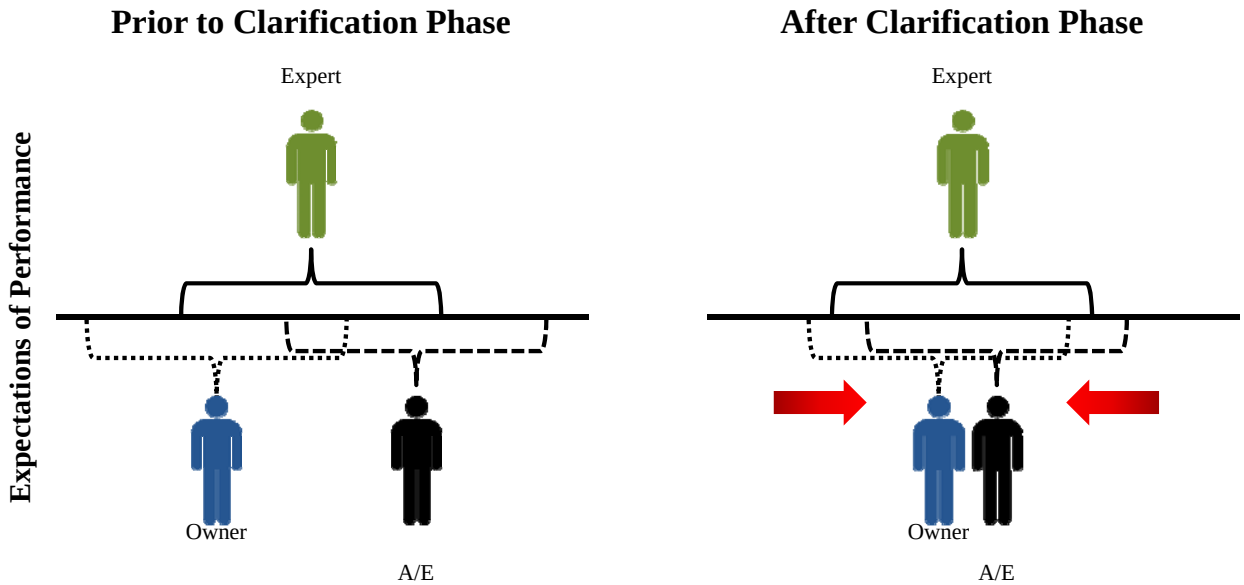

Figure 2. Impact of Clarification Phase on Performance Expectations

The potential best value firm creates the following four documents during the clarification phase. These items set the baseline expectation of the project, so it is important that the firm spends the time to preplan the project. These documents should represent the shared expectations of the project team.

1. Creation of a risk management plan (RMP). This document identifies all of the major project risks and potential mitigation / minimization strategies for each item. The only risks on the RMP are ones that the vendor does not control. The authors' research has shown that the client organization is often the source of risk. Thus, the RMP is actually a document that communicates to the owner what the vendor's expectation of risk resolution is throughout the project.
2. Development of, and agreement to, a project scope. The vendor will identify "what's in" and "what's out" of the project. This scope definition must be simple and easy to understand. Part of this scope may reflect additional work that the client has requested (also shown in the cost summary).
3. The milestone schedule (supported with a detailed schedule) identifies the various tasks parties must complete. In certain situations (i.e., service contracts), the vendor may include performance metrics for the major milestones. These metrics will identify if the vendor, and client, are performing at the expected level.
4. The vendor will separately identify their major assumptions on the project. While these items may be also included as part of the RMP or Scope summary, separately identifying the major assumptions allows the vendor communicates their expectation of the project's delivery.

Management by Risk Minimization / Project Management

After the clarification phase is complete, the owner awards the contract and the project begins. The documents developed during the clarification phase serve as the baseline project expectation. Any deviations to the plan (in terms of cost or schedule) are monitored by the vendor, and summarized to the owner in the weekly risk report (WRR). If a previously identified risk occurs, the vendor will follow their plan in the RMP. Regardless if the risk was previously identified or not, the vendor will identify what the risk is (in simple terms), who caused the risk, and how and when they plan to resolve it. Risks are categorized by the following entities (Smithwick & Sullivan, 2013):

- Owner – entity directly procuring the project or the some other group part of the owner's organization.
- Contractor – contracted firm providing the construction services (general contractor, technology system integrator, or the demountable walls installer).
- Designer – architect / engineering firm. While the AE acts on the owner's behalf, this category specifically refers to the AE's delivered services.
- Unforeseen – site or project events that are reasonably expected to not be identified prior to starting the project (i.e., catastrophic event).

These deviations rates (schedule, time, overall) are calculated with the following formulae on a per-category basis, and are expressed as percentages:

$$\text{Cost Deviation:} \quad \frac{\sum[cost\ increases\ or\ decreases]}{awarded\ contract\ value} \tag{1}$$

$$\text{Schedule Deviation:} \quad \frac{\sum[schedule\ increases\ or\ decreases]}{awarded\ schedule\ duration} \tag{2}$$

$$\text{Overall Deviation:} \quad \frac{(Cost\ Deviation + Schedule\ Deviation)}{2} \tag{3}$$

APPLICATION OF BEST VALUE BUSINESS MODEL

Intermediate School District 287, in Plymouth, Minnesota, has seen the impact organizational culture differences of some of their construction teams. In the Summer of 2008, the District built the South Education Center (SEC) with design-bid-build (with construction management supervision) delivery approach. Because of the depressed construction market and low loan interest rates, the District immediately began work on the North Education Center (NEC) after SEC was completed. The NEC houses special-needs programs, fully functional instructional kitchens, quiet time breakout rooms, and highly integrated technology systems. NEC was delivered using Design-Bid-Build (DBB), following the best value model. Table 2 summarizes the projects' characteristics:

Table 2 - *SEC and NEC Project Characteristics*

Characteristic	SEC	NEC
Project delivery method	Design-Bid-Build (with Construction Management)	Design-Bid-Build
Construction budget	$25.4M	$22.1M
Size (square feet)	108,500	157,500
Duration (months)	19	17
Start Date	August 2006	March 2011
Finish Date	March 2008	August 2012

While the SEC was a successful project, the owner had several challenges with the construction manager approach, namely:

- Required a high level of owner oversight, direction, and control. This was evidenced by the multitude of change orders on the project. While the changes may have been legitimate, the 'surprise' factor and the sheer volume forced increased management by the owner.
- The project had over 50 contracts. This allowed the construction manager to deliver the project successfully, but it resulted in confusion and transactions. If there was a warranty callback, the owner had to sort through the numerous contracts and attempt to find the correct party.
- The closeout process was not well documented. The project was handed over to the owner to sort through the various warranties and manuals. Additionally, the owner could not easily quantify the project's performance in terms of metrics (time, cost, satisfaction).

The owner was attracted to the best value model because of its structure, focus on risk management (as compared to the traditional low-bid selection), and inclusion of performance measurement. Essentially, the owner wanted to use the best value process to utilize the expertise of the contractor, instead of managing them. The owner realized that the clarification phase would help all parties align their performance expectations of the project. The BVM was used to award the General Construction, Technology Systems, and Demountable Wall System contracts.

The primary research question of interest was, "Do the assumption creation tools in the value-based model result in higher project performance in terms of time, cost, and owner satisfaction?" The authors use results from a comparative case study to answer the research question.

Case Study: SEC (traditional) vs. NEC (best value)

The case study considers the performance differential between the South Education Center and the North Education Center, in terms of number of change orders, total cost of change orders, and percent of contingency budget used. Table 3 summarizes the change order rates for both projects.

Table 3 - *Change Order Summary for SEC and NEC*

Change order measurement	SEC	NEC
Total number of change orders	422	110
Total cost of change orders	$1,523,902	$1,448,243
Percent of contingency budget used	8.0%	4.8%
Overall change order rate	N/A	5.0%

These data show that the best value NEC project had 74 percent fewer change orders, and 40 percent less of the contingency was used. The SEC's average change order value was $3,600, while the NEC's was $13,100. $664,000 of the $1,448,243 NEC change order value was due to owner's the acceptance of a demountable wall (DW) upgrade option. While the DW was a deviation from the contract agreement, all parties were expecting the cost to come. If the DW upgrade is excluded, the total change order value is $784,243. Table 4 summarizes the overall cost and schedule deviations General Contraction, Technology Systems, and Demountable Walls projects. Deviation rates by category are not available on the SEC project.

Table 4 - *Overall Deviation Rates on the NEC Project*

Risk Category	General Construction	Technology Systems	Demountable Walls	Overall Combined
Client	0.2%	5.2%	0.2%	0.3%
Contractor	0.0%	0.7%	0.0%	0.0%
Design	0.9%	0.2%	0.1%	1.6%
Unforeseen	0.3%	0.0%	0.0%	0.6%

Under the best value system, there were almost no vendor-generated cost or schedule changes. The majority of changes came from design or owner changes (conflicts, additional scope, etc.). The 0.7 percent contractor deviation rate on the Technology Systems project was a schedule delay due to audio / visual problems in some of the classrooms.

The number of change orders on the SEC represents numerous transactions with all parties (contractor, owner, and architect). The owner identified that the contractors were much more proactive in identifying and minimizing risk on the NEC. For example, the General Contractor typically included a proposed solution when submitting a Request for Information to the Architect. Including a draft solution served as a mechanism for the GC to communicate their expectations (or assumptions) on the particular issue.

The Clarification Phase helped to instill the practice of identifying and creating the same expectations for delivery of project performance. The practice continues throughout the life of the project. While the weekly risk report documents the project performance, its utility is derived from the report's structure and focus on risk management. The language in the WRR is simple and therefore helps to minimize bias one might have in interpreting the report.

Validation

The authors first qualitatively validated the results by considering a large, complex design-build project at the University of Alberta in Canada, also delivered under the best value model. The project converted a cold-storage facility to a medium-energy cyclotron (MC). Lines, Perrenoud, & Sullivan's (2013) summary reveals parallels to the NEC best value project. During the clarification phase (before a contract was signed), the MC

design-builder identified three significant risks relating to accuracy of field data. Had the issue been discovered after construction began, massive costs and schedule delays would have likely ensued. The MC project's stakeholder estimated that Alberta saved $14 million (30 percent) and 30 months (63 percent), as compared to the traditional approach. These savings were a direct result of the clarification phase's structure to help all parties have an understanding what will be accomplished on the project.

The authors further validate that the clarification phase helps to align performance expectation by comparing the NEC's deviation rates to all other best value projects in the state of Minnesota. The authors have performed research in the state for the past eight years and have supported the delivery of over 400 best value construction projects (Smithwick, Sullivan, & Kashiwagi, 2013a). Table 5 summarizes the deviation rates of the NEC project and other Minnesota best value projects. The table shows that overall performance (in terms of deviation rates and customer satisfaction) of the NEC is just 0.8 percent higher as compared other best value projects in Minnesota. These results indicate that the District's experience with implementing the model is the norm, not an anomaly.

Table 5 - *Performance Traits of NEC and other Minnesota Best Value Projects*

Performance Trait	NEC	Other Minnesota Projects
Total number of projects	3	412
Total construction value of projects	$22.1M	$453.5M
Average overall contractor deviation rate	1.8%	1.0%
Average customer satisfaction of BVM (out of 10)	10.0	9.6

SUMMARY AND CONCLUSIONS

Many construction and facility projects do not have a formalized and structured preplanning phase prior to contract award. As a result, the various stakeholders enter into an agreement with misaligned expectations (or assumptions) of what the other stakeholders will do. This results in surprises, confusion, and low project performance. A more efficient approach is for the expert to develop a plan, and then communicate it to the other critical entities. The challenge, however, is that the owner must release control to the expert contractor. The contractor must explain their plan very simply so that all parties understand.

The best value model helps to create shared assumptions between all parties by creating a common denominator of performance expectations on the project. The model redefines the roles of the entities: contractors become the leader and owners / architects perform quality control against the contractor's plan. Developing a plan requires each party to think ahead. While each entity has expertise in their field, the clarification phase forces the simplification of plans so that they are understandable to the entire group; that is, each party must understand the underlying assumptions of the team to successfully deliver the project. The best value model accomplishes this by requiring that the transmission of information is in simplistic terms.

References

Becker, H. S., & Geer, B. (1957). Participant observations and interviewing: A comparison. *Human Organization, 16*(3), 28-32.

Benta, D., Podean I.M., & Mircean, C. (2011). On best practices for risk management in complex projects. *Informatica Economica*, 15(2), 142-152.

Bosch-Rekveldt, M., Jongkind, Y., Mooi, H., Bakker, H., & Verbraeck, A. (2011). Grasping project complexity in large engineering projects: The TOE (technical, organizational and environmental) framework. *International Journal of Project Management*, 29(6), 728-739.

Construction Industry Institute (CII). (1994). “Pre-project planning: Begging a project the right way.” *Publication 39-1*, Austin, Texas.

Construction Industry Institute CII. (1995). “Pre-project planning handbook.” Special *Publication 39-2*, Austin, Texas.

Denison, D. R., & Spreitzer, G. M. (1991). Organizational culture and organizational development: A competing value approach.*5*, 1-21.

Gibson, G., Wang, Y., Cho, C., & Pappas, M. (2006). What is preproject planning, anyway? *Journal of Management in Engineering*, 22(1), 35-42. doi:10.1061/(ASCE)0742-597X(2006)22:1(35)

Griffith, A., and Gibson, G. (2001). Alignment during preproject planning. *Journal of Management in Engineering, 17*(2), 69-76. doi:10.1061/(ASCE)0742-597X(2001)17:2(69)

Heijmans, P., & Hyland, T. (2012, June 17). Planning failures derail aid project. *The Sydney Morning Herald*. Retrieved from http://www.smh.com.au/world/planning-failures-derail-aid-project-20120616-20glr.html

Kashiwagi, D. (2012). *Best value standard*. (pp. 3.7, 4.1-4.8, 5.29, 7.1-7.18). Mesa: Kashiwagi Solution Model (KSM).

Kroeber, A. L., & Kluckhohn, C. (1963). *Culture: A critical review of concepts and definitions*. New York: Vintage Books.

Lines, B., Perrenoud, A., and Sullivan, K. (2013) “Optimizing Cost and Schedule Performance through Best Value Project Delivery: Application within a Design-Build Project.” *Journal for the Advancement of Performance Information and Value*, Vol. 4 (2), pp. 27-40.

Louis, M. R. (1981). A cultural perspective on organizations: The need for and consequences of viewing organizations as culture-bearing milieux.*Human Systems Management, 2*(4), 246.

Martin, J., & Siehl, C. (1983). Organizational culture and counterculture: An uneasy symbiosis. *Organizational Dynamics, 12*(2), 52-64.

Merrow, E. and Yarossi, M.E. (1994). “Managing capital projects - where have we been - where are we going?” *Chemical Engineering (New York), 101*(10), 108-111.

O’Connor, J., and Vickroy, C. (1986). “Control of construction project scope.” *Source Document 6*, Construction Industry Institute, Austin, Tex.

Schein, E. H. (1993). On dialogue, culture, and organizational learning. *Organizational Dynamics, 22*(2), 40-51.

Schein, E. H. (2010). *Jossey-bass business and management : Organizational culture and leadership (4th edition)*. Hoboken, NJ, USA: Jossey-Bass.

Smithwick, J. and Sullivan, K. (2013). “Application of a Risk Management Structure to Minimize Schedule Deviations Under a Commodities Contract,” *2013 Associated Schools of Construction Conference*, San Luis Obispo, CA, April 9-13, 2013

Smithwick, J., Sullivan, K., and Kashiwagi, D. (2013a) “Utilization of a Best Value Structure on a City’s Park Renewal and Upgrade Program.” *Journal for the Advancement of Performance Information and Value*, Vol. 5 (1), pp. 50-58.

Swartz, M. J., & Jordan, D. K. (1980). *Culture: The anthropological perspective*. New York: Wiley.

Van Maanen, I., & Schein, E. H. (1979). Toward a theory of organization socialization. Research on Organizational Behavior, 1, 209-264.

Villachica, S. W., Stone, D. L., & Endicott, J. (2004). PROJECT ALIGNMENT: Ensuring successful development and implementation from day one. *Performance Improvement, 43*(10), 9-15.

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