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IS PLEASED TO ANNOUNCE THE INTRODUCTION OF PROJECT ALIGNMENT SERVICES

Our firm has probably seen more project cost and time overruns than any other firm in the Canadian construction industry. Generally, we have provided claims related services to these projects, allowing us to gain extensive experience regarding the factors leading to the overruns.

With the collaboration of Dr. George Jergeas, a past Director of the Project Management Specialization Department at the University of Calgary and a former Revay and Associates employee, we will now be providing the Project Alignment Services described in Dr. Jergeas' article.

In providing this service, we will apply our extensive experience in a proactive manner, in order to minimize cost and time overruns and avoid the resultant disputes. We have in the past and are currently using this experience in providing Project Management Services; therefore, we consider Project Alignment Services a perfect extension to our core competency.

Dr. George Jergeas has successfully provided the services described below on more than 20 projects in Alberta. We will now be providing Project Alignment Services throughout Canada.

Measuring and Monitoring Project Performance and Success

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George Jergeas

ABSTRACT: Project success parameters need to be set at the outset of a project. Success parameters, such as delivery on time, within budget, and at the highest quality, give some direction to the project team. But how do stakeholders' expectations, communication, or issue resolution affect a project's success? Even a project that has met its cost, schedule, and quality targets can still be considered a failure. The purpose of this article is to report the results of on-site testing of tools for measuring project performance or success on construction and engineering projects. The article presents a tool that divides success into objective and subjective measures. Objective success measures are common to all projects and are hard measurements. Subjective success measures can vary from project to project and from phase to phase within a project. The article also presents a mechanism for issue resolution that helps project teams avoid an adversarial approach.

INTRODUCTION

Effective and successful project management of today's major projects is a challenging and complex task. In general, these complexities are the result of "technical" or "hard" issues, such as cost, quality, and schedule, and, more importantly of "soft" issues, such as communication, team building/alignment, stakeholder management, trust building, negotiation, and issue resolution. These issues must be immediately and aggressively addressed for early identification and continuous measurement during the life of the project.

Key success factors for engineering and construction projects are setting up for success at the very beginning, and ensuring the right processes are in place to manage the "soft and hard issues" as the project progresses. These factors include developing processes to check the status of the health of the relationship and the development of an "open and honest" culture.

This article will present two suggested tools for measuring success criteria and sustaining non-adversarial relationships on projects. The purpose of these tools is to ensure that

- Processes are in place to manage the "success" of the project.
- Project performance and success – that is, team relationships, communication, or concerns – are being continuously monitored.
- An ongoing, open, and honest communication and issue resolution culture is being nurtured.

BACKGROUND

Project success is a key concept in the management of construction and engineering projects. However, consensus on a clear definition of what constitutes

success has been difficult to achieve. Many researchers and industry professionals have developed a variety of definitions of project success that are typically specific to projects and situations. Although success is the goal of all project teams, it is difficult to achieve unless the team is aligned with the goals and objectives of the project. This alignment can be enhanced if there is a common definition of success for the team to follow.

Stripling et al. (Stripling & Thomas 2004) provide a literature review of best practices that can be consulted as a reference in initiating and managing success on a project. They refer the reader to references and make several key conclusions that are worth repeating here: (Stripling & Van Dyke 2003) (Stevens 2002) (Hartman 2000) (Shenhar et al 1997) (Savage et al 1991) (Jergeas et al 2000) (Hayes 2000) (Project Management – Part 1: BS 6079-1:2000) (Quality Management – Guidelines to Quality in Project Management BS ISO 100006:1997) (Kerzner 2001) (A Guide to the Project Management Body of Knowledge, 2000) (Cooke-Davis 2002).

- Defining project success is a very critical matter and usually not nearly as simple as one may first expect. This is especially the case on projects where there are many stakeholders and defining "success" becomes complicated. Multiple stakeholder agendas must be identified and aligned as much as possible to a shared definition of success.
- The benefit of producing a Project Charter comes from using an inclusive process to create it rather than from its existence alone as documentation. Creation of the Project Charter through a participative and inclusive interaction of key project stakeholders is important for identifying and aligning agendas and expectations.

We have a wealth of research and practical experience that supports the perception that the quality of project outcomes can be seriously influenced by the quality of the team and members' relationship. Building teams and relationships on projects with many stakeholders with conflicting interests can be a serious challenge. Building and sustaining strong teams must be done early in the project. It is fundamentally important to pay attention to the team members' interests and concerns and to forge a common understanding and "alignment" among them. Research shows that individuals who feel a sense of ownership of the project and a commitment to the goals of the team are much more likely to go the extra mile required to deal with the types of unexpected problems likely on complex projects (Stripling & Thomas 2004).

PROJECT PROCESS MONITORING

Effective management of team performance and success measurement are difficult because a diverse group of project entities usually are brought together with different backgrounds, interests, and experiences. The author has been testing a structured framework called "partnering" for five years now on 15 construction projects. Partnering is a process for aligning project team members towards common goals and commitment and to creating open and honest communication with no hidden agendas. This process requires movement from an adversarial to a collaborative relationship with a shared culture, without regard to traditional organizational boundaries. The relationship must be based upon trust and equity, dedication to common goals, and an understanding of each other's individual expectations and values. The benefits arising from this relationship include improved communication; efficiency; a less adversarial approach; and, ultimately, a greater opportunity for success (Stripling & Thomas 2004) (Gough & Jergeas 2005).

One important element of the partnering concept is the regular monitoring of project performance and success. Project success is first defined and then assessed on a regular basis throughout the life cycle of the project. The Project Charter includes an explicit definition of success and a consideration of how the various stakeholders will work together and how performance or success will be measured. The author's work on 15 projects in Alberta shows promisingly positive outcomes when regular monitoring of success factors is conducted by an external party and incorporated into project status meetings.

In every partnering case, the author implemented a series of workshops and facilitated monitoring sessions or "check-ups" at the regular project meetings. Several workshops were conducted during the life of the project, which were attended by project staff from all levels. All workshops were intended to break down existing organizational and cultural barriers, establish and maintain a unified team to achieve the mandate, increase and maintain the level of knowledge with respect to project issues and partnering, reinforce the benefits resulting from the partnership, and maintain a high level of interest in partnering so that the resulting benefits were not taken for granted (Gough & Jergeas 2005). In the first workshop, among others, "success criteria," a "tool for evaluating performance/success," and an "issue resolution mechanism" were jointly developed. These tools were used to focus and manage the relationship and success throughout the project.

Our results suggest that the most important part of tools of this type is not the tool's existence or even what is included in the content of the tool. Its value arises from creating a common baseline of understanding of what the project is intended to achieve and the issues all the key players foresee in completing the project. This common understanding provides a foundation for project success (Stripling & Thomas 2004) (Gough & Jergeas 2005).

MONITORING SUCCESS

Lack of a formal monitoring procedure can cause failure because, without it, problems will not be recognized until too late. Problems and opportunities must be identified as soon as possible to allow for time to deal with them. The purpose of any tool for monitoring is to measure the health of the relationship and the performance of the parties (Clifford F. Gray & Erik W. Larson, 2000).

This tool is developed jointly by the team for the specific needs of the project. The tool contains specific success criteria relating to the effectiveness of the process, such as teamwork and timely problem resolution. This tool acts as a team self-evaluation method by allowing the team to uncover problems on an ongoing basis and to take corrective actions. The tool asks each team member to evaluate team performance/success in a number of areas (see Table 1). The questions are framed to be both general and project-specific and are based on the success criteria defined by the parties in the Project Charter. The author recommends the tool be used at least once a month at the end of the regular project meetings.

Respondents rate each statement on a scale of 1 to 5. Any response below 3 requires follow-up by the Project Manager with the respondent.

Each month, during the regular meetings, all involved parties reviewed and evaluated the relationships using this

Date: _____

Primary Project Focus during the last period: _____

COMMUNICATION				
1.	Communications are...	difficult, guarded	1 2 3 4 5	open, up-front
2.	Information flow is...	restricted	1 2 3 4 5	free, open
3.	Timeliness of information is...	late	1 2 3 4 5	on-time
WORKING RELATIONSHIPS				
4.	Cooperation between parties is...	poor, detached	1 2 3 4 5	good, unreserved
5.	Issues and concerns are...	ignored	1 2 3 4 5	dealt with quickly
6.	Responses to issues become...	personal	1 2 3 4 5	project problems
7.	Disputes are addressed...	ineffectively	1 2 3 4 5	efficiently
8.	Problems are resolved by...	senior management	1 2 3 4 5	lowest level
TECHNICAL REQUIREMENTS				
9.	Safety performance is...	not acceptable	1 2 3 4 5	acceptable
10.	Overall quality is...	not acceptable	1 2 3 4 5	acceptable
11.	Value for money	is not acceptable	1 2 3 4 5	acceptable
STAKEHOLDER & EXTERNAL ISSUES				
12.	Public complaints are...	frequent	1 2 3 4 5	infrequent

Please list examples for point 1 - 12 above that you rated 1 or 2

_____

_____

Table 1 – Upgrades Program – Team Self-Evaluation Form: Monitoring Success

tool. This evaluation provided a forum for identifying a problem not only with the project, but also with working relationships so that they could be resolved quickly and appropriately. A third party facilitator (the author in this case) acted as a catalyst to ensure that issues and concerns introduced in the surveys or identified through body language during discussions were adequately addressed by all parties.

In one case study, the data collected for the twelve questions of the Team Self–Evaluation form were averaged for all responses. These are illustrated in Figure 1.

The spider-graph of average responses indicates that both the flow and the timeliness of information is a shared concern, (indices 2 and 3 refer to Table 1) as are the effectiveness of the problem resolution process and the level to which problems escalate before being resolved (indices 7 and 8). Project team responses also show that safety performance on the project is excellent.

For comparison with the overall responses to the Team Self-Evaluation form, averages by organization were plotted for the Engineer, the Owner, and the Constructor (see Figure 2). The comparison shows a high degree of consistency and alignment of responses other than in the areas of flow and timeliness of information (indices 2 and 3), and whether responses to problems became personal issues or were considered as project problems (index 6).

ISSUE RESOLUTION MECHANISM

The mechanism tested on all of the 15 cases is based on the concept of escalation, which means that the disputes had to be resolved at the lowest managerial level, within a set time limit, or they would be escalated to the next level of management. (Construction Industry Board, 1997). This mechanism is meant to expedite problem resolution; however, if the parties at one level cannot reach agreement, then they should not hesitate to escalate the problem so that their relationship will not suffer over an unresolved issue. Moreover, the disputes are not to be taken personally. Project parties must give authority to lower levels to resolve issues, and senior staff should not overturn these agreements at a later date. The following flowchart represents what typically the parties jointly develop and adopt (Figure 3).

To enhance project success, an issue resolution mechanism should be jointly developed to deal with and resolve problems quickly and fairly.

INDEPENDENT FACILITATION

An independent facilitator, working closely with the project team as a team-building advisor, is essential to the success of this process. The facilitator's main focus is on promoting and maintaining the health of the relationship during the life of the project. This focus can be achieved by administering the project self-evaluation tool and fostering an environment based on respect, trust, and fairness that promotes honest, open communication among all.

The facilitator's task is to encourage and maintain honest, open, and constructive discussion. The value of engaging an external facilitator in this process is that he/she can act independently from any obligation to the individual parties. In effect, the independent facilitator interest is vested only in the success of the project team, and, therefore, the success of the project.

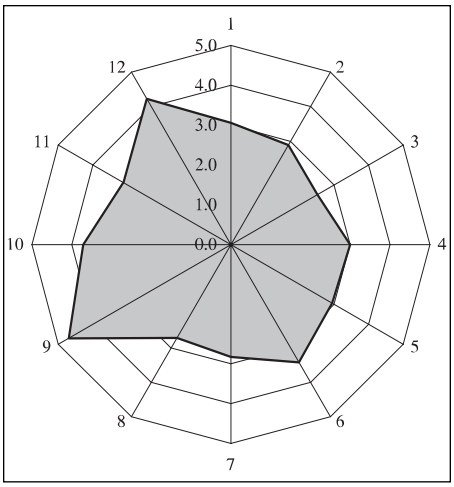

Figure 1 – Average of Responses

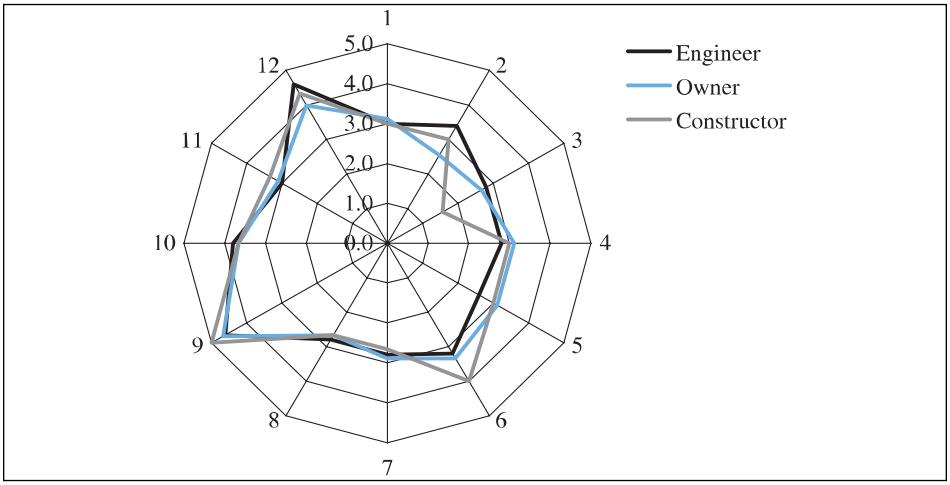

Figure 2 – Average of Responses by Organization

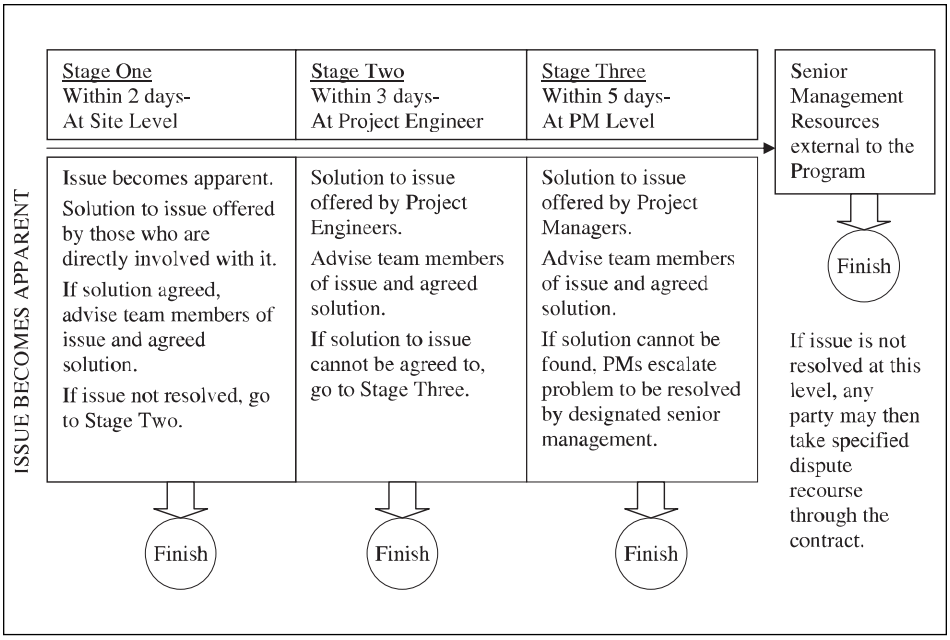

Figure 3 – Issue Resolution Process

CONCLUSIONS

Managing projects effectively and successfully is a challenging and complex task requiring careful attention to both "hard" and "soft" aspects of project management. We recognize now that success issues including communication, team building/alignment, stakeholder management, trust building, negotiation, and issue resolution must be immediately and aggressively addressed at the beginning of the project.

A key factor for projects of every type is setting up for success, upfront at the very beginning, and ensuring the right processes are in place to manage the "success" as the project progresses. These factors include developing tools to check the status of the project team climate, interaction health, and "development of a collaborative non-confrontational relationship" culture. Specific tools to improve project practices in these areas are introduced in this article.

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