TECHNICAL ARTICLE

Partnering: An Innovative and Effective Project Organization Concept

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ABSTRACT:
Lowering cost and gaining a competitive advantage are prerequisite in the changing business environment. Partnering is one approach to reduce cost and minimize conflict in the construction industry. It is an increasingly popular management tool aimed at reversing the negative effects of adversarial relationships in construction. In this article the concept of partnering is defined from various points of view. The key elements that contribute to the success of the concept are discussed. The guidelines to be followed for the establishment of partnering between organizations are stated. Some of the barriers to the growth of partnering are stated. A conceptual model of partnering is explained. Some of the more important benefits accruing from this relationship like effective project control, cost control, and improved public relations are discussed. A comparison of two major strategies of change, (viz. TQM and partnering) is done concluding that the two strategies are complementary to each other. Finally surveys comparing the performance of partnered and non-partnered projects are studied, showing clearly that partnering is indeed the way for organizations to work in the future.

KEY WORDS: Partnering, project control, cost control, and total quality management

The construction industry has been forced into a continued search for improved business methods. Several issues such as inflation, quality, new technologies, and high-risk investments have required new business strategies, with an emphasis on cost effectiveness and total quality. In this situation, a vehicle for improvement in the business environment is required to create a win-win attitude among all team players. The partnering concept provides a vehicle to reach improved performance in which both customers and suppliers of goods and services can achieve more satisfaction and trust in their relationships [2].

Partnering is a way of doing business that helps the providers of services and the recipients of those services work together to achieve their mutual, as well as individual goals and objectives. It is particularly relevant in the current business climate, in which economic, technological and legal considerations make each and every project a challenge to complete on time, within budget, and to the recipient's satisfaction [1]. Partnering is not a panacea. It is not a partnership that can be enforced by a court of law. Partnering requires total commitment, the appropriate conditions, and the right chemistry between two organizations to succeed.

The objective of this article is to examine the concept of partnering by taking a look at the definitions of partnering as it has been reported in the literature. The need for employing partnering as a means of an innovative project organization concept is evaluated. The key elements are introduced along with the barriers to partnering. The ingredients as well as the steps of successful partnering are reviewed. A conceptual model depicting how the partnering concept develops between organizations is studied. Some of the important benefits of implementing partnering such as effective project control, cost effectiveness, and improved public relations are also discussed. A brief comparison of the two new and successful strategies, (viz. TQM and partnering) is done. Lastly, the results of implementing partnering in various projects are examined.

THE CONCEPT OF PARTNERING

Definitions

There are number of definitions stated in the literature for partnering. These definition are by the following agencies: US Army Corps of Engineers (USACE), Associated General Contractors of America (AGC), the Construction Industry Institute (CII), the American Consulting Engineers Council (ACEC), and the American Institute of Architects (AIA). Refer to reference [1] for a complete listing of the definitions.

The US Army Corps of Engineers (USACE) defines partnering as the creation of the owner-contractor relationship that promotes the achievement of mutually beneficent goals. It involves an agreement in principle to share the risks involved in completing the project, and to establish and promote a nurturing partnership environment [1]. The Construction Industry Institute (CII) defines partnering as a (long-term) commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries. The relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values. Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services [1,5,8].

According to S.T. Baker [4], "Project partnering is a method of transferring contractual relationships into a cohesive, cooperative project team with a single set of goals and established procedures for resolving disputes in a timely and effective manner." C. Moore, D. Mosley, and M. Slagle [6] reported that, "partnering is an alternative management process that seeks to produce organizational change to resolve the traditional problems of construction delays, difficulties in resolving claims, cost overruns, litigation, and a win-lose climate." L.G. Crowley and M.A. Karim [9] stated that, "partnering is a

cooperative approach to contract management that reduces costs, litigation and stress. It is similar to a matrix organization in which a project organization is overlaid on the functional division of the parent firm."

Partnering is a relation wherein [4,5]:

- all seek win-win solutions;
- value is placed in long term relationships;
- trust and openness are norms;
- an environment for profit exists;
- all are encouraged to openly address any problem;
- all understand that none benefits from the exploitation of the other;
- innovation is encouraged; and
- each partner is aware of the others' needs, concerns, and objectives, and is interested in helping their partner achieve such.

A typical partnership is the usual type of contract wherein two parties come together for the achievement of a facility, and then the partnership is dissolved after the work is completed. Table 1 highlights some of the major differences in the two approaches [3].

Table 1—The two approaches [3]

Typical Partnership	Partnering
• limited partnership;	• full partnership;
• win-lose;	• win-win;
• adversarial problem solving;	• joint problem solving;
• independent project teams;	• joint project teams;
• risk transfer;	• risk share;
• develop the case;	• no claims;
• conflicting objectives; and	• mutual goals; and
• process improvement not worth risk	• risk sharing on improvement

THE NEED FOR PARTNERING

The world of project management is challenged by many problems such as poor communications, adversarial contractual language, cost overruns, continuity from project to project, extended schedules, poor-quality work, and change-order negotiations [4]. The primary thrust behind partnering is the improvement of quality in the production of goods and services. In addition to specifically improving quality, there are a number of reasons why the stakeholders might want to have a partnering relationship. Refer to references [4,15] for a complete discussion. The following discussion summarizes the reasons from the owner and the contractor point of view.

- **For the owner**: lack of personnel; in-house skills renewal not occurring; optimal project planning; emergency response capability; improved market responsiveness; and cost reduction.
- **For the contractor**: long-term workload; focus on quality management; association with recognized industry leaders; and improved employee attitudes.

KEY ELEMENTS OF PARTNERING

A typical partnering relationship involves the elements of commitment, trust, mutual advantage, and opportunity [1,5,13].

Element of Commitment

The most important element in establishing a partnering relationship is commitment. The partnering companies must commit to a long-term relationship in which each company understands the goals of the partner, and each exhibits a real commitment to seek new ways to assist the partner in achieving its goals and in gaining a competitive advantage. The commitment to a long-term relationship results in a partnership that is not in a state of constant reassessment and in which each partner has a clear focus on continuous improvement of the relationship and dedication to common goals. Partnering implies that the commitment should not be dependent on individual personalities to maintain the relationship. Although personal changes may occur, the commitment to partnering is bound to maintain the momentum of the relationship [1,5].

Element of Trust

A partnering relationship must include the element of trust. The partnering companies must recognize that by sharing information, accepting diminished control of a part of its operations, and tolerating contact with outsiders, each firm can obtain benefits that would exceed the firm's individual capacity. Trust serves to combine the resources and knowledge of the partners in a fashion intended to eliminate adversarial relationships [1,5].

Elements of Mutual Advantage and Opportunity

Other key elements in a partnering relationship are mutual advantage and opportunity. The partnering companies should expect more advantages and more opportunities than are available in traditional business relationships. Partnering relationships offer advantages and opportunities specific to the owner and to the constructor and engineer [1,5].

INGREDIENTS OF SUCCESSFUL PARTNERING

The project-partnering guide developed by the AIA (1), lists the ingredients of successful partnering as positive attitude, preparation and perseverance.

Positive Attitude

The essence of partnering is the courage to change old attitudes. Important supporting elements include the following.

- **Commitment**—All participants, particularly management, must support the intent and goals of the relationship. Partners should enter into the relationship with a winning attitude.
- **Trust**—Teamwork depends on mutual trust. Trustworthiness stems from words and actions being clear and consistent, based on competency and character, and substantiated by demonstrated efforts to follow through.

- **Understanding**—Stakeholders must respect each other's feelings, responsibilities, expectations, and limitations. They also must expect and accept honest differences of view.
- **Excellence**—Partners strive to create the best possible product or deliver a premium service. Partners should expect and encourage a mutually agreeable level of excellence as a standard of the working relationship.

Preparation

Proper preparation is essential in order to meet certain criteria. Important supporting elements include the following.

- **Clear Expectations**—Each partner must establish and communicate the expectations, needs, and agenda that drive his participation. An open mind is essential, but so too is understanding one's own purposes in becoming a partner. Stakeholders should establish collectively a hierarchy of expectations. Expectations should focus on contributing to both mutual and individual project goals. Participants should be prepared to provide real commitment to the process throughout the project.
- **Mutual Goals and Objectives**—Each participant should fully articulate his goals and objectives for the project. Then, as discussions ensue between partners at the workshop and follow-up meetings during the project, mutual interests should be identified. Common grounds means shared purpose and energy towards problem solving and goal achievement in areas such as limiting costs, minimizing paperwork, applying low-cost technologies, and avoiding litigation.

Perseverance

To make the process work requires each participant to stick to it, to persevere and sustain his commitment to the process. Key areas to follow through on the commitments made include the following.

- **Execution and Responsiveness**—Partnering works when people do their jobs in a timely way and follow through on commitments. This comes from being prepared and is facilitated by the initial workshop. Execution is also helped by the open, ongoing communications that follow. Good communications should include setting up protocols to resolve issues routinely. It will also entail raising more difficult disputes to a higher level when needed. None of these approaches should involve adversarial means.
- **Communication and Feedback**—Constant communication is necessary to assess and evaluate progress toward the achievement of the goals and objectives. Partners must prepare their project managers to act on feedback, especially when it is aimed toward achieving the success of the product or service.

Adequate preparation, perseverance, the proper ingredients, and a winning attitude are all part of the recipe for successful partnering. All help sustain the good intentions of project partners to do good work and achieve intended results.

GUIDELINES TO PARTNERING

C. Cowan, C. Gary, and E. Larson [3] described the guidelines to partnering by dividing the project partnering into two main activities. They are pre-project activities and implementation. Pre-project activities involve selection of partner(s), and team building among project managers and stakeholders. The implementation of project partnering involves joint evaluation of project progress, problem resolution, continuous improvement, and persistent leadership. E.L. Cook and D.E. Hancher [5], described the partnering process to be undertaken in five sequential steps. They include the following:

- recognition of partnering opportunities;
- strategy development;
- partner selection;
- contract negotiations; and
- implementation.

C. Moore, D. Mosley, and M. Slagle [6] stated that partnering is generally established through a structured, facilitated process, normally consisting of organized workshops to bring the participants together. The steps in establishing a partnering process include the following:

- begin early;
- obtain a commitment from top management;
- select members of the partnering team;
- identify a champion;
- select facilitators;
- conduct the initial workshop; and
- follow-ups and perks.

O. Abudayyeh [15], stated that the partnering process consisted of three main steps to reach to a quality product through partnering. They include the following:

- generating an interest in partnering;
- organizing a partnering workshop; and
- execution.

BARRIERS TO THE GROWTH OF PARTNERING

E.L. Cook and D.E. Hancher [5] studied the principal barriers inhibiting the growth of partnering. These include the following:

- the corporate culture;
- the traditional owner-constructor-engineer roles; and
- the time required to develop the partnership.

Corporate Culture

Managers educated in traditional business relations find partnering relationships threatening to their company. These managers' attitudes have been influenced by their company's corporate culture. Managers perceive partnering as a disguised giveaway of company resources. Such managers have difficulty identifying their company's self-interest with the well being of another company. This makes managers uncomfortable with the idea of partnering relationships because they are unwilling to relinquish any control in operating their company and they are unwilling to share confidential information. As business environment changes, a company's success may depend on recognizing and adapting its culture to these changes [5].

Traditional Owner-Constructor-Engineer Roles

The traditional relationships between owners, constructors, and engineers has led to a set of assumptions that are strong barriers to implementing partnering relationships in the construction industry. These assumptions can result in adversarial and antagonistic relationships. Strong barriers to implementing partnering relationships that result from traditional relationships include the following:

- the priorities and goals of the owner are substantially different from those of the constructor;
- owners should contract with many constructors and they should change them frequently;
- buyer-seller transactions, such as fixed price contracts, are random events and each transaction stands on its own; and
- there is a lack of commitment to the partnership [5].

Time Required to Develop Partnership

Another barrier to successfully implementing partnering is the time required to develop and implement the partnership. A significant amount of time and effort is required to find the right partner and to develop the partnering agreement. Structuring a partnering relationship can take many months and the arrangement requires a long-term commitment to the partnership. Both companies must devote considerable time to establishing procedures for the arrangement and to implementing the arrangement [5].

BENEFITS OF PARTNERING

Benefits from partnering accrue to owners, contractors, architects/engineers, suppliers, and subcontractors. A few more important and inherent benefits are discussed below.

Effective Project Control [9]

Effective project control is the ability to manage a project according to an established plan (time, budget, resources) producing agreed upon results. These tools include but are not limited to: work breakdown structure, task matrix, statement of work, specifications, task authorization, project budget, cost accounts, schedules, networks, critical path determination, tracking, reporting, support and leadership. All these tools boil down to three distinct pillars: people, metrics, and measurement.

People are the most valuable asset of the organization, and it follows that the control of a project starts with team development. It is the team involved in a project that can ultimately produce success or failure. Team development affects the control of a project by a number of factors, including motivation, commitment and leadership. People come together to work out a detailed plan, reach an agreement between the team, obtain commitment from the individuals and management, define measurable milestones, detect problems early, communicate the true project status, and meet milestones - including the delivery of final product. Motivation and commitment of people on a project are critical to the successful control of that project. Leadership, among other things strives to achieve commitment from the people involved, i.e., commitment toward the project and its efficient completion.

The metrics (which refer to measurable quantities, management style, and effectiveness) of a project are the deliverables and the plans to achieve them, as compared to the results finally obtained. Metrics are the "how" of project completion - how a project is intended to be completed and how it is actually accomplished. Project metrics are flexible and tracked with benchmarks and milestones.

Partnering provides a means for controlling the project effectively. Partnering provides that vehicle for project control by meeting all the requirements of successful control. Partnering successfully meets or excels in the areas of people, metrics, and measurement, and thus provides the vehicle for controlling a project.

Partnering motivates the people on a project by establishing a true team environment. Partnering provides the environment that allows the functional leaders to come forward without the fear of blame or sole responsibility for correction. This team environment fosters motivation and commitment among all involved. Partnering provides the environment for people to meet on the same grounds (without hidden agendas), work out a detailed plan, reach agreement between the teams, obtain commitment between the team and management, define measurable milestones, detect problems early, communicate the true project status, and meet milestones (including the delivery of the final product).

Partnering needs leadership support to function properly. Besides being an element of successful project control, leadership is the catalyst that makes things happen. Also, the metrics of a project contribute to the successful control. Partnering provides the environment for metrics to be successfully managed.

Cost Effectiveness [4,11,18]

Partnering brings together all parties at a project's inception and creates synergies that benefit everyone involved. It is the solution for meeting today's special challenges of meeting quality and cost effectiveness. With partnering all parties agree, at the outset, on their individual roles and how they will interact. The commitment comes from the management level. Monthly meetings among principals, with reports from field representatives keeps everyone informed. All are aware of the job status and anticipated problems that might need immediate attention. This is both cost effective and invaluable to good working relationships throughout the project. Because partnering relies, more than anything else, on the use of common sense and a commitment to working together, communication among all interested parties is enhanced, resulting in significant savings in costs associated with labor time spent waiting for answers or materials that require lead time scheduling. Also, claims and litigation are avoided. Partnering is a process that continues throughout a project. The effectiveness of the project is reviewed and evaluated periodically by all the participants, not just the contractor or the owner. As partnering involves teamwork and reduced risk it saves everyone involved time and money. Commitment of principals and improved allocation of resources is inherent in partnering. Thus, partnering provides a cost effective solution to the construction industry.

Improved Public Relations

As construction project management becomes the focus of greater scrutiny to a growing number of public groups, project managers find themselves faced with the challenge of new degrees of accountability to these groups. Consequently, the success of any project is dependent to a large measure on the project manager's people skills.

In learning to deal with these publics, the project manager and members of the project team are afforded a real advantage when the partnering process is used because of the fact that one of the central tenets of partnering is open communications among the project team members. This communication is the key to effective result oriented public relations. [10]

Since public relations is a communications function, as much information as possible must be available to the project management team during all phases of the project in order to make organizational decisions and statements beneficial to all parties. In dealing with public relations problems, there are usually four stages. These include the following:

- issue identification;
- issue analysis;
- issue change strategy alternatives; and
- issue action plans.

Partnering aids the project management team in all of these areas [10,15].

PARTNERING AND TOTAL QUALITY MANAGEMENT (TQM)

Partnering provides an environment for total quality management (TQM) because it focuses on the long-term approach of continuous improvement of construction processes. It provides a culture of continuous improvement that leads to performance improvement. These concepts are similar because both require a major cultural change in the method of operation of partners. Both require long-term commitment and support from every level of the organization. For success, both concepts require that people understand and are motivated to work in the new culture [2].

Total quality management and partnering are complementary processes and both require an organizational environment of trust, open communication, and employee involvement. The partnering process is designed to create an effective project management process between two or more organizations, while the focus of total quality management is continuous internal improvement to meet customer needs [14].

Total quality management is basically a process internal to the organization. Partnering as applied on large-scale projects is designed to develop trust, communication common goals, and a decision-making/problem-solving process among a number of different organizations. Partnering provides an informal management structure for the organizations to implement the elements of the total quality management process as if all parties were working in one organization. Partnering first creates a well-organized team with effective processes and the elements of total quality management are then brought into play to manage the project [14].

Partnering is the key for long term total quality management. Partnering works well on a project basis. It also works equally well to build management teams within the organization. This proves that internal partnering is not only complementary but improves the effectiveness of total quality management in organizations. The track record for partnering in meeting or exceeding expectations is considered higher than total quality management. The reason for this being that partnering directly confronts in workshops the more difficult behavioral side involving teamwork and joint problem solving. This is done by accelerating the successful passage through the stages of group development. It also does this by modifying attitudes and behavior so that key participants can function creatively [14].

Partnering and total quality management are not in opposition; they are complementary and reinforce one another. The success of external and internal partnering in developing teamwork makes this process the ideal for long-term and continuous total quality management improvements [14].

EXAMPLES OF PARTNERING

To gauge the performance of partnering as a new concept, some of the surveys done on projects that have employed this concept are discussed. Most of the surveys included a comparison of the performance, in the organization of non-partnered projects and partnered projects. Some of the factors that were compared were cost-effectiveness, duration changes, change-order costs, claims costs, and value engineering savings. The results of U.S. Army experience [17] tend to show that partnering projects performed better on average than the non-partnering projects in the categories of cost, schedule, change-order cost, claims cost, and value engineering savings. These findings are in agreement with the findings of the US Navy study reported by K.J. Schmader and G.E. Gibson Jr. [16]. With the study findings for USACE that was reported by D.C. Weston and G.E. Gibson Jr., [17]. The findings are summarized in the following points:

- 18 percent of non-partnered projects experienced claims cost, as opposed to 7.5 percent of the partnered projects.
- 17.5 percent of the partnered projects posted some value engineering savings, as opposed to only 4 percent of the non-partnered projects.
- 13.5 percent was the average duration change on partnered projects, as opposed to 26 percent on non-partnered projects.
- A majority of the personnel are satisfied with their partnering experiences and believe the process contributed to the successful project completion.

J.R. McMichael [18] in his experiences on the project of building the Boeing Spares Distribution Center advocated the efficiency of using partnering on projects. He attributed the successful execution of the project to the following:

- the total project team's commitment to the partnering concept in order to create a win-win relationship;
- creation of ownership in the project by soliciting input from all stakeholders in the initial design stage;
- effective communication with all project stakeholders; and
- use of a proven methodology for change control.

Additional benefits were reported by C. Cowan, C. Gray, and E. Larson [3] and

by S.T. Baker [4]. The CII study identified several benefits. These are summarized in the following:

- improved ability to respond to changing business conditions;.
- improved quality, safety, and fewer errors;
- reduced cost and time and improved profits; and
- more effective use of resources resulting in engineering cost reductions of 21 percent and administrative cost reductions of 6 percent.

From this exhaustive study of the literature, the following conclusions have been determined:

- partnering arrangements to date are employed in limited cases;
- there is a great deal of industry interest in partnering;
- partnering takes time to develop and is therefore not a quick fix;
- partnering requires a cultural change or a paradigm shift;
- partnering requires a commitment from top management;
- the primary driving forces for partnering are improved quality, lower life-cycle cost, and lower fixed-resource requirements; and
- improvements in safety, quality, profitability, resource planning, market responsiveness, and innovation are achievable with partnering.

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