A Four-Way Approach To Minimize Asymmetric Information In Projects

Tags: project management, asymmetric information, communication, technology, construction industry

Meta description: Leverage 21st Century technology on your projects to overcome the factors that impinge upon the final cost to the owner.

Introduction:

The widely held belief that construction project costs can be controlled by utilizing a competitive procurement process is based on a false premise. While it is true that the owner can select the lowest bidder through competition in almost all cases once the contract is awarded, particularly with a fixed/lump sum price contract; the relationship quickly morphs into a monopoly as the constructor assumes overwhelming control of project information. When it comes to controlling the final cost of the project, information matters. Many owners fail to recognize the tremendous value that 21st century construction technologies can bring to bear on addressing the problem defined by Barry B LePatner in his ground-breaking book, "Broken Buildings, Busted Budgets" wherein he has coined the phrase "asymmetric information".

The construction industry has a demonstrated track record of resistance to utilizing new technologies exacerbating the problems resulting from asymmetric information. Modern technology can be harnessed to aid the owner by eliminating asymmetric information and providing visibility into the entire operation of the construction process.

There is a price to be paid for this change in approach. However, investments in technologies, along with other factors, turns out to be far less costly than maintaining the status quo. The resultant savings to the owner can range above 10% of the final cost of construction. On a billion-dollar project this is not a de minimis amount.

Granted, technology is only one part of the solution. Embedding cost reporting provisions into contracts, acquiring the required level of talent of technical resources within the owner's organization and adopting an organizational change management approach that mandates the adoption of a state-of-the-art Project Management Information System (PMIS) empowers the owner's organization to control project costs.

Implementing construction technology solutions throughout project operations can directly minimize asymmetric information and effectively control costs, here's how:

1. **Technology affords a greater degree of collaboration that results in heightened levels of communication and efficiency.**

Lack of communication is the primary cause of project delays and cost overruns. A well designed PMIS workflow application enables the owner to dictate the practice of structured information so that everyone uses the same data. A single source of truth not only mitigates disputes but goes a long way towards effective communication.

Structured workflows that are designed specifically for the organizational approach preferred by the owner ensures accountability and consistency on multi-project manager projects and

programs. Executive management visibility into project performance by well-designed dashboards, alerts and formal reporting of the issues that impact the project provides decision makers with timely information enabling quick response times and proactive decision making.

Technology can deliver a greater clarity of roles and tasks, allowing for increased quality of work aligned with project requirements. As construction projects are notoriously known for unknowns, i.e., surprises (e.g., unanticipated field conditions, planned vs. real-world differences in conditions, etc.) adhering to an owner mandated PMIS workflow application provides the project team with a strong communications tool with tangible advantages, as cross-functional communication has become a rarity in the industry that many team players significantly value.

2. Multi-discipline staff is required by owner's for managing information that matters.

When the owner and constructor enter into a fixed price/lump sum agreement, it is mistaken to believe that the owner and the constructor are operating with similar goals in mind. Common ground can be found when the objective is to complete the project expediently, but there is generally a departure where the cost of the project is concerned. While the constructor is profit driven, the owner is value driven. There are optional contracting methodologies other than Fixed Price/Lump Sum where these two drivers are not in conflict with each other.

Optional contracting methodologies, (i.e, Cost-Plus Fixed Fee, Guaranteed Maximum Price, Shared Savings, Performance Bonuses, etc.) are not the primary focus of this blog, however what each of these options have in common are the need to have a variety of skills in-house, or at minimum, under consultancy agreements to aid the owner's efforts to stay abreast of all of the issues that the constructor may raise and for the owner to have their own internal assessment of issues in order to question the constructor intelligently and to oversee the veracity of the information supplied by the constructor.

When the owner has the qualified staff and has visibility into real-time performance issues with the previously described well designed PMIS, the problem of asymmetric information can be ameliorated.

3. Embracing the change is a strategic imperative.

There is a direct correlation between user adoption of new technologies and the tangible value that the technology affords the organization. When new technology solutions are embraced as a strategic imperative by the executive management of the organization there is a much greater chance that all of the entities, people and companies, that are involved in the delivery of the project will reap the benefits as well.

Similarly, there is a direct correlation between stress levels on the project team and the quality of work produced, hence the need to adopt technology for better communication and reduce stress amongst all staff. Additionally, technology brings significant benefits such as maintaining worker satisfaction levels, providing monetary benefits, and increasing training to further specialize employee skillsets.

Reducing asymmetric information with technology can advance goal and task alignment within the organization, providing optimal results. Providing staff with 21st Century technology solutions to facilitate communication dilemmas ensures workers are equally informed with reliable, real-time information.

4. **Contractual requirements define how technology, processes and people align on goals and objectives for an effective project culture.**

Although many construction projects have similarities, each project has unique features and specific requirements that must be clearly and explicitly described in the contract General Requirements (Division 1 of the specifications) in order to have all entities understand and be prepared to meet contractual obligations.

Clearly written administrative procedures enables project managers and staff to understand the project before its commencement and use the data to effectively deliver the project to the satisfaction of the owner. Pre-determined and well-defined technology solutions can provide the constructor with the information necessary to estimate the exact numbers of managers, staff and resources required for the job, helping all entities align to establish a project execution plan that best complements efficient completion of the project.

Conclusion:

When large projects are contemplated, it's crucial that budgets are carefully planned and abided by to prevent unexpected costs. While an investment in new technology may be considered a short-term unanticipated expense for some owners, there are immense long-term benefits as project costs will be significantly reduced.

Asymmetric information is common within the construction industry, therefore proactive steps must be taken to address project issues and prevent unnecessary impacts resulting from inadequate planning and poor communications. Incoherent communications are the basis of project cost over runs and schedule delays.

Ensuring clear communications is crucial to successful outcomes for all parties engaged in the project. Technology is constantly advancing and providing time and cost-efficient methods for managers to streamline processes, ensure projects are completed on time and that reliable information is communicated among staff.

Credits: This blog is based on the 'Information Matters' whitepaper published in 2019 by Mark Bodner and Gregory Coburn. The full whitepaper is available for download under the publications link at: www.cmx.llc/blogposts