# ATTRACTING AND IDENTIFYING HIGH PERFORMING PROJECT MANAGERS

KRISTEN HURTADO, ANUSREE SASEENDRAN, JOHN SAVICKY, and KENNETH SULLIVAN

*School of Sustainable Engineering and the Built Environment, Arizona State University, Tempe, USA*

Construction project managers (PMs) are critical to the execution of successful construction projects, conducting and orchestrating the intricacies of dynamic and complex projects. A large state university was challenged with attracting and retaining PMs in their construction department during a period of rapid university growth and departmental re-organization. The university tried current models for selecting construction PM firms largely based on commodities-based procurement and/or low bid structures and was unsuccessful. A new model was developed that considered and analyzed both the capabilities and qualifications of the individual PMs. The importance of individuals being able to identify their unique capabilities, be accountable for their performance, and operate in a transparent environment are critical concepts within this model. The new model also created an environment of organizational transparency, requiring PMs to measure their performance and the performance of their projects. The model resulted in an overwhelming amount of high quality PMs seeking to join the university. The university initially sought a specific skills set for new PMs, but revised their criteria and future selection processes for hiring future PMs based on the results of this model. Analysis of the PM capabilities, qualifications, and performance are shared as well as lessons learned to refine the model. This model can also be used to identify high performing individuals in other positions or disciplines.

*Keywords*: Procurement, Performance-based qualification, Expertise-driven, Organizational transparency.

## 1 INTRODUCTION

In project management literature, project success is a well-researched area of study. Effective project management is one of the factors that has been increasingly linked to the success of a project (Spalek 2005; Papke-Shields *et al.* 2010, Cooke-Davies and Arzymanow 2003, Din *et al.* 2011). Studies that have focused specifically on the construction industry have also demonstrated similar findings. For instance, Yang *et al.* (2011) found that increase in levels of leadership of Project Managers (PMs) enhances team member relations, thereby improving the chances of project success. Chan *et al.* (2004) proposed a conceptual framework of factors affecting project success in construction, in which one of the five main contributing factors to success was project management. Relationship management, which is an important part of a PM's role, was found to have a significant effect on the performance of construction projects (Meng 2012).

In spite of the overwhelming evidence demonstrating the importance of the role a PM plays in the success of a construction project, sophisticated practices to identify and hire PMs whose capabilities align with that of the project requirements do not currently exist, particularly in the public sector. Lavigna (2002) claimed that "at every level of government, HRM/personnel systems are being criticized as inflexible, slow, rule-bound, and user-*un*friendly". In a study that compared hiring practices in the public and private sectors, Osoian and Zaharie (2014) found that advertising job openings is more complicated in the public sector and it does not attract as many direct applications from candidates as in the private sector. In addition, Glassdoor Economic Research Report (Chamberlain 2018) found that the length of the average interview process in the United States had increased by approximately 77% from 2010 to 2014.

## 1.1 Traditional Hiring Formats

When an organization has a need for professionals such as PMs, one of two alternatives is generally pursued: 1) hiring professionals internally, or 2) hiring an external consultant to supply the professionals as needed. The steps involved in internal hiring, particularly in a public setting, is time-intensive and takes approximately four to five months, as it involves writing job description, advertising the opening, reviewing the resumes, interviews and finalizing the award (Osoian and Zaharie 2014). Furthermore, barriers in the laws and how agencies use these laws may hinder initiation of demotion or removal actions if the hired PM is performing poorly (McPhie 2010). Hiring external consultants to outsource the work is the more uncommon approach of the two. This method awards the contract to a single firm based on their qualifications, rather than the capabilities and expertise of the individuals who will be providing the service. This poses a risk of the organization receiving a poorly performing PM from a well-qualified consultant firm. Expertise-driven hiring mitigates this risk by evaluating specific individuals instead. Hiring a singly form usually follows a low bid approach, where the vendor with the lowest proposed cost is selected. However, this approach has been linked to inconsistency in performance, quality and reliability (Assaf and Al-Hejji 2006).

In response to the challenges identified, the researchers developed a new model of hiring that takes into account both the capabilities and qualifications of the individual PMs being hired. The following sections discuss the new hiring model that was proposed by the researchers, and details of a case study where the model was utilized to hire PMs.

## 2 EXPERTISE-DRIVEN HIRING FRAMEWORK

Expertise-driven hiring mitigates the long duration taken to hire internally by outsourcing the services to an external organization. The researchers estimated a total time of eight weeks between advertising the job and making the award which makes the process 58% faster than traditional hiring. It involves a sequential list of items that needs to be completed by the organization seeking to identify high performing project managers (Figure 1). The first step of outsourcing PM services is needs assessment, which involves evaluating the current state and potential future needs of the organization. This is key to providing definition to the needs of the organization and communicating pain points, if any, thereby providing visibility into the organization and a chance to ascertain how they can add value to PMs who are proposing.

Following this, a request for qualifications (RFQ) is issued to engage consultants to supply one or more personnel to provide PM services. This is a crucial point of departure from traditional solutions to soliciting professional services where a consultant is requested to propose on behalf of all the personnel in the firm and the lowest bidder is commonly selected. Expertise-driven hiring mitigates the risks associated with hiring a single firm that may have varying

capabilities among their PMs by evaluating specific individuals who will be hired instead. Additionally, expertise-driven hiring utilizes the five filters of best value procurement in order to ensure that the PMs being hired provide maximum value in terms of money, risk, and quality of work (Sullivan 2010). In expertise-driven hiring, a consultant is allowed to propose more than one qualified PM for the services being requested, although a separate proposal is required for each PM being proposed. Each individual PM responding to the RFQ is required to submit the following documents, in addition to basic information such as resume and references:

- Capability Statement – to illustrate the PM's unique capabilities that sets them apart
- Service Approach – to allow the PM to create a roadmap that describes the PM's vision
- Risks and Challenges – to allow the PM to describe any potential issues that may occur
- Measurements and Metrics – to provide a summary of how the PM will document and track their performance on this service, and
- Cost – yearly and hourly cost or fee for informational purposes until negotiation period.

The next step in the process is evaluation of proposals. An evaluation committee that consists of representatives from the major stakeholders at the organization evaluates the proposals blindly after removing any personally identifiable information to ensure fairness. This is followed by a shortlisting of PMs and interviews, and a clarification period with the shortlisted PMs. During this period, the organization negotiates and enters into contracts with the top-rated PMs.

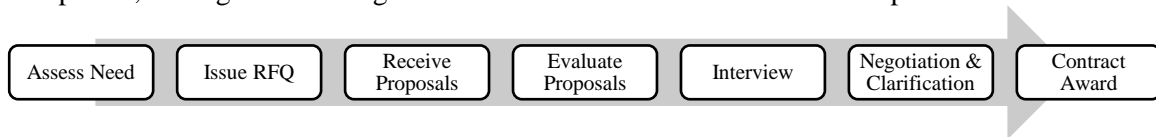| Assess Need | Issue RFQ | Receive Proposals | Evaluate Proposals | Interview | Negotiation & Clarification | Contract Award |

Figure 1. Expertise driven hiring framework.

Expertise-driven hiring ensures that an organization does not need to make long-term commitments to who is being hired as compared to internal hiring. The organization can set up yearly contracts with an option for renewal contingent on the performance of who is being hired.

## 3  CASE STUDY – BACKGROUND

A large public university situated in southwestern United States is the focus of this study. The university has an estimated student population of 22,000 and 1,000 faculty. At the time of this study, the university was facing a unique set of challenges fueled by the tremendous growth in student enrollment and faculty onboarding. The Office of Architects and Engineers (A&E) at the university manages the programming, design and construction of new and remodeled capital projects, and is responsible for an active project load of over $1.1 billion had recently undergone several changes, including a restructuring and combining of three departments – A&E, Construction, and Facilities. Additionally, its director was looking to retire and the department would then have to be managed by one of the senior PMs. In total, the restructured A&E department had a staff of seven PMs (from senior to entry-level) that were managing roughly 500 projects. This left roughly 236 projects ($26M) that had not been assigned a PM. Furthermore, additional projects were being requested by the university's stakeholders on a daily basis and there was a growing perception that A&E was unable keep up with the increasing demand. The A&E department also predicted a rapid growth in the requested number of projects per year over the next five years.

In order to keep up with the increasing demand, the A&E office was seeking to hire up to ten PMs on staff. However, the department estimated that the traditional hiring process would take four to five months to perform, which was considerably longer than they could afford considering

the immediate need. Therefore, they decided to forego the traditional process and adopt an expertise-driven hiring process proposed by the researchers as an alternative.

## 4    FINDINGS AND DISCUSSION

The university implemented expertise-driven hiring in order to address an immediate need on campus and identify high-performing PMs. The A&E office performed a needs assessment of the university, which revealed that the 236 approved projects that had not been assigned PMs could be broadly classified as Heating, Ventilation and Air-Conditioning (HVAC, 40%), classroom/laboratory (18%), small/basic renovations (9%), and others (33%). It was also estimated that the university would undertake an average of 492 projects each year for the next five years valuing a total of $718 million. These assessments helped the university determine the areas wherein the PMs being evaluated would need competency.

### 4.1    Proposal Submittal and Evaluation

The advertisement of the university's need through an RFQ generated a much higher level of interest among PMs than anticipated by the university and the university received proposals from 42 applicants. Three addenda were issued to answer questions from potential proposers, as a result of which the interviews were delayed by two weeks. Five evaluators assessed the proposals, based on a 1, 5, 10 scale, 10 being exceptional, and 1 being poor.

After the scores were calculated, the researchers conducted a *point difference analysis* of the 42 responses for the purpose of identifying which proposers would proceed to the interview phase. Only the 14th and 22nd highest ranked PMs had a large enough point difference from the next highest ranked to be defensible. To avoid the possibility of excluding talented PMs, the university decided to proceed with 22 PMs. However, three of the 22 were offered other opportunities that were more desirable; thereby reducing the shortlisted pool to 19.

### 4.2    Interviews, Clarification, and Contract Award

The shortlisted candidates underwent 40 minute interviews, after which the evaluators scored them. These scores were combined with the proposal scores to obtain a total score for a PM. Among the top nine PMs, eight were from different organizations indicating the value of expertise-driven hiring, since onboarding a single consultant would have resulted in one to two high quality PMs being used (assuming the same firms would have been selected, which is very unlikely). Further, of the top nine PM firms, only one was familiar to the university. The expertise-driven process attracted new firms to the university that had not previously worked with the university or had chosen not to participate in the past. This process thus successfully mitigated the risk of low responses that is associated with traditional hiring. At the end of the process, the university hired three PMs for their immediate needs and maintained a list of shortlisted candidates in the event of a future need.

#### 4.2.1    *Analysis of the applicants*

The university received 42 proposals from 21 consultants. 83% of the applicants declared a bachelor's degree, and 43% of the applicants were A/E licensed. However, the shortlisted applicants also had a similar background (85% bachelor's degree, 55% A/E licensed), demonstrating that a degree or an A/E accreditation is not a differentiating factor for performance. Among the shortlisted candidates, 86% indicated competency in only one of the three areas that the university was interested in, thereby denoting their specialization in a field.

10 of the 21 firms proposed only one candidate. Six firms proposed two candidates each, three firms proposed three candidates, one firm proposed four, and the last one proposed seven candidates. The following table indicates the number of applicants each firm proposed, and the number of applicants from each firm that made it to the top nine.

Table 1. Number of applicants per consultant firm.

| Consultant Firm | Number of Applicants | Number of Top Nine Applicants |
|---|---|---|
| Firm 1 | 4 | 0 |
| Firm 2 | 3 | 0 |
| Firm 3 | 7 | 2 |
| Firm 4 | 2 | 0 |
| Firm 5 | 2 | 0 |
| Firm 6 | 3 | 0 |
| Firm 7 | 3 | 1 |
| Firm 8 | 2 | 0 |
| Firm 9 | 2 | 1 |
| Firm 10 | 2 | 1 |
| Firm 11 | 2 | 1 |

## 4.3 Satisfaction with Expertise-Driven Hiring

Shortly after the contracts were awarded, the key stakeholders in the University were asked to complete a short anonymous survey about the new process. Two executive level personnel who were involved in the expertise-driven hiring process at the university at all stages completed the survey. Of the responses recorded, the average overall satisfaction with the new process was a 7.5 out of 10. When the responders were asked to rate their level of comfort with unique methods of the process, they rated an 8 or above for all sections but one. The lowest rated criteria was the interview process at 6.5. The researchers hypothesized that this was due to the university-caused delay in interviews by a month as well as the significant change that this process represented, with some participants being highly resistant to any changes of the traditional process.

The university has since renewed all of the current PM contracts due to their measured performance on completed projects for the university. As the university's needs change, they will continue to have the flexibility to choose to renew or terminate any of these PM contracts on a yearly basis. This is useful for public organizations, as internally hired personnel are subject to certain labor laws and regulations.

## 4.4 Lessons Learned

A procurement of "people" presents its own unique challenges and differences compared to that of a typical procurement of a firm for goods or services. Initially, the credentials of a PM (having a bachelor's degree, etc.) weighted heavily against their ranking. PMs were expected initially to have at least a bachelor's degree, and ideally further credentials. Later, after narrowing the original pool to a shortlisted pool, it became evident that background credentials and level of education did not correlate with a PM's final score or ranking. One suggestion moving forward with similar procurements was to reduce the focus on a PM's degree and credentials.

From the start of scope drafting through contract award, the number of PMs to be hired was unclear to the university. By the time the university had decided to proceed with the top three ranked PMs, two of the highest-ranking PMs had accepted other offers. Additionally, moving forward, it should be made clear initially to PMs who they should contact with any questions. In

the interview process, it became evident that PMs had several questions regarding their project load, responsibilities and the university policies and procedures. Providing them with this information up front would increase transparency and help retain vendor interest.

## 5   CONCLUSION

Although identifying high performing project managers is known to be crucial to the success of a project, existing hiring practices are time-consuming and inefficient, particularly in the public sector. Further, the traditional process does not always attract the highest quality experts, since individual companies may have fewer experts among their teams. The researchers therefore proposed an expertise-driven hiring framework, where the project management service is outsourced to individual PMs. A case study where this model was used to identify and hire PMs revealed that the new process is faster, attracts higher interest from well-qualified and experienced PMs from different organizations, and results in a high satisfaction among the hiring personnel. As organizations look to hiring high-performing PMs to better manage their portfolio of projects, this research will encourage them to rethink their current hiring process in favor of identifying expertise among individual PMs. Future research should focus on testing this model at other organizations – both public and private, to assess whether the results of this study can be duplicated in those settings as well.

## References

Assaf, S. A. and Al-Hejji, S., Causes of Delay in Large Construction Projects, *International Journal of Project Management*, *24*(4), 349-357, 2006.

Chamberlain, A., Why is Hiring Taking Longer? New Insights from Glassdoor Data, Glassdoor.com, June 2015. Retrieved from https://www.glassdoor.com/research/app/uploads/sites/2/2015/06/GD_Report_3.pdf on October 2018.

Chan, A. P., Scott, D., and Chan, A. P., Factors Affecting the Success of a Construction Project, *Journal of Construction Engineering and Management*, 130(1), 153-155, 2004.

Cooke-Davies, T. J. and Arzymanow, A., The Maturity of Project Management in Different Industries: An Investigation into Variations between Project Management Models, *International Journal of Project Management*, 21(6), 471-478, 2003.

Din, S., Abd-Hamid, Z., and Bryde, D. J., ISO 9000 Certification and Construction Project Performance: The Malaysian Experience. *International Journal of Project Management,* 29(8), 1044-1056, 2011.

Lavigna, R. J., Best Practices in Public-Sector Human Resources: Wisconsin State Government, *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 41(3), 369-384, 2002.

McPhie, N. A., (Ed.), *Addressing Poor Performers and the Law*. DIANE Publishing, 2010.

Meng, X., The Effect of Relationship Management on Project Performance in Construction, *International Journal of Project Management*, 30(2), 188-198, 2012.

Osoian, C. and Zaharie, M., Recruitment for Competencies in Public and Private Sectors, *Transylvanian Review of Administrative Sciences*, 10(41), 129-145, 2014.

Papke-Shields, K. E., Beise, C., and Quan, J., Do Project Managers Practice What They Preach, and Does It Matter to Project Success? *International Journal of Project Management,* 28(7), 650-662, 2010.

Spalek, S., *Critical Success Factors in Project Management: To Fail Or Not to Fail, That is the Question!*. Project Management Institute, 2005.

Sullivan, K. T., Quality Management Programs in The Construction Industry: Best Value Compared with Other Methodologies, *Journal of Management in Engineering*, *27*(4), 210-219, 2010.

Yang, L. R., Huang, C. F., and Wu, K. S., The Association Among Project Manager's Leadership Style, Teamwork and Project Success, *International Journal of Project Management*, 29(3), 258-267, 2011.