

General Contractors' Perceptions of Subcontractor's Competencies and Attributes: A Pacific Northwest Study

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Most years, the construction industry employs approximately seven million people in the United States. General contractors enter into public and private contracts to deliver construction projects. Between 75% and 100% of the construction project is subcontracted to specialty contractors. The results of qualitative research completed in the Pacific Northwest identified six emergent themes as competencies and attributes that general contractors want to see in subcontractors. The six emergent themes include: *Quality Work*; *Reliability and Responsiveness*; *Communication*; *Managerial Competency* including *Competitive Estimating and Pricing*; and *Preconstruction Services*. The 32 participants working in Oregon and Washington were also asked to articulate the reasons why these subcontractors' competencies and attributes were important. The three themes that emerged from the data included: *Meeting the Owner's Expectations*; *Success* which was multifaceted; and *Team Player*. Participants also identified subcontractor's negative attributes. The four emergent themes included: *Unprofessional, Dishonest, and/or Unreliable*; *Change Order Focused*; *Poor Communication*; and *Poor Quality Work and/or Personnel*. Since a high percentage of work on construction projects is performed by subcontractors, the success of construction projects is often dependent on their competencies and attributes.

Key Words: Subcontractor; Specialty Contractor; General Contractors' Perceptions; Project Delivery

Introduction

"In construction, specialty items such as plumbing, heating, electrical, roofing, and tile work are usually more effectively performed by subcontract" (Knudsen, Schexnayder, Fiori & Mayo, 2009, p. 162). "A subcontractor is a construction firm that contracts with a prime contractor to perform some aspect of the prime contractor's work" (Clough, Sears & Sears, 2005, P. 4). The terms "specialty contractor" and "subcontractor" are synonymous (Knutson et al., 2009, p. 37). On many construction projects the majority of the project is subcontracted to specialty contractors. On commercial construction projects, general contractors subcontract between 75% and 100% of the work (Mincks & Johnston, 2011; Schaufelberger & Holm, 2002). Mincks and Johnston (2011) identify three reasons why subcontractors are used on a project: "Specialized labor for particular construction tasks; Lower cost for subcontract work; and Reduced risk for the [general] contractor" (p. 258).

Because these specialty contractors execute most of the tasks involved with a construction project, they have a significant impact on the general contractor's success or failure (Schaufelberger & Holm, 2002, p. 91). "Successful project performance depends on the legal and business relationship between the prime contractor and subcontractors and suppliers as much as any other factor" (Kelleher, 2005, p. 149). The legal and business relationship between the prime contractor (also referred to as the general contractor) and the subcontractor is defined by the subcontract agreement. Many of these relationships are long term. Shash (1998) states that 76% of commercial subcontractors have maintained their relationship with general contractors for an average of 21.1 years (p. 224).

In Design-Bid-Build project delivery the general contractor usually selects the subcontractors based on lowest price. In "alternative" project delivery methods such as Design-Build, CM at Risk, or CM/GC, there may be an opportunity for the owner to have input into subcontractor selection. In their text focused on Design-Build project delivery, Beard, Loulakis and Wundram (2001) state that there is "growing recognition of the enormous contributions that major subcontractors provide to the overall success of projects" (p. 125). Therefore, in most projects utilizing alternative delivery methods, the subcontractors are often selected or short-listed based on

contractor qualifications or best value proposals. In a qualifications-based procurement strategy, the contractor is selected based on the contractor's qualifications only; fee is not a criterion for selection. In a best value selection strategy, the contractor is selected based on a combination of qualifications and cost and/or fee (Kenig, 2011).

Research Methodology

Funding for this research was provided by Western Partitions, a Division 9 specialty contractor in the Pacific Northwest. This specialty contractor, with Oregon offices in Portland and Eugene and Washington offices in Seattle and Spokane, wanted to improve how they do business and interact with general contractors. They also wanted to know how they are perceived by the general contractors with whom they have contracted to provide construction services. Only the responses regarding general contractors' perceptions of subcontractors' competencies and attributes are presented in this report.

Western Partitions provided the researchers with a list of vice presidents, project managers and superintendents with whom they had worked on previous projects. Purposive sampling was used because Western Partitions wanted input from these individuals. In purposive sampling, "the participants are handpicked from the accessible population" (Gliner, Morgan, & Leech, 2009, p.124). Thirty-two participants were interviewed asking two sets of questions; six questions regarding specialty contractor attributes and eight specific questions regarding their perceptions of Western Partitions. The researchers interviewed 13 general contractor employees from Washington and 19 general contractor employees from Oregon.

Data collected from the open ended interviews were analyzed and coded utilizing open, axial, and selective codes using a combined deductive and inductive approach. Patton (2002) states, "Discovery and verification mean moving back and forth between induction and deduction, between experience and reflection on experience, and between greater and lesser degrees of naturalistic inquiry" (p. 67). The researchers used NVivo9 as an organizational tool during data analysis. The emergent themes focused on specialty contractor positive and negative attributes.

Research Results: Most Important Subcontractor Competencies and Attributes as Identified by General Contractors' Personnel

The 32 general contractor employees were asked to: "List the top five attributes that you want to see in a specialty subcontractor." The following themes emerged.

Quality Work and Staff

It is very important to general contractors that subcontractors do quality work, are experts in their specialty, and have the qualified individuals in the field to produce this quality product. This may be the most important competency or attribute that general contractors are looking for in subcontractors. Some individuals indicated that they would prefer not to do the work themselves if they could have a subcontractor with trade expertise and who could produce quality work. The following comments from individuals working for general contractors emphasize this emerging theme.

- *Workmanship is number one.*
- *We want to make sure that they're going to provide us with high quality end product.*
- *Timely performance probably, you know, actually probably quality, I mean they could all be right up at the top; quality, you know, then the office paperwork falls behind.*
- *I think performance probably sums up a lot of those, though its not very specific, performance meaning quality, cost control, on time, on schedule.*

The quality of the work and the quality of the staff seemed to emerge together as important subcontractor competencies and attributes. The following quotes from individuals working for general contractors emphasize the quality of the individuals working for specialty contractors.

- *I think the trade competency; we hire them to be an expert. You know a lot of the time we don't get that [from subcontractors] and that's kind of an important thing to us.*

- *Qualified field staff being able to complete the job, that's got to be number one.*
- *I would think individual competence, yeah, you bet, make sure that that person is qualified to do the work.*
- *I would want to see that that person has the experience and has the know-how, the knowledge and the background to be able to handle that particular task.*
- *Number one would be experience in the company as a whole. Number two would be the experience of the individual team members.*

Reliability and Responsiveness

The quality of the subcontractor's work and the quality of the subcontractor's personnel seemed to lead to the importance of reliability. Several individuals working for a general contractor felt that reliability was a key competency or attribute for a subcontractor to possess. The following comments emphasize that emergent theme.

- *That's more cost for us, so somebody that can just get it done and get it right the first time, you know, I think is pretty essential.*
- *Reliability (4)*
- *The top three: trust, reliability and thoroughness.*
- *I think reliability; you know we need to rely on these guys for a lot of different things.*
- *Do what you say and say what you're going to do, don't commit to something and not follow up on it.*
- *Then follow-through would probably be number three.*
- *Generally reliability, that's doing what they say when they say it, I would say accuracy in the work they do.*

Reliability seems to tie into the importance of the responsiveness of a subcontractor as evidenced by the following comments.

- *I would say that we're looking for responsiveness. (4)*
- *Probably professional promptness.*
- *Performance and turnaround and understanding the importance of getting those documents out there so we can keep appraised and keep moving on a project.*

Communication

One of the attributes that general contractors want to see in subcontractors is the ability to communicate and be team players. This was evidenced by the following comments from individuals working for general contractors. When asked to "list the top five competencies or attributes in subcontractors" or asked "how subcontractors can add more value for general contractors", the following comments were made:

- *To provide more value, they need to interact with us, let us know about how they go about doing their business so we understand what they're doing, so we don't think that they might be dishonest, so we understand where they're coming from, so more communication.*
- *I think you can't be part of a team unless you communicate with each other.*
- *I think open communications so that if there's issues that are coming up, the more dialogue we can have, the better for all of us.*
- *I would also say that communication is key. (2)*
- *A superintendent that has reasonably good communication skills and [who] can communicate problems or solutions is very important.*

Managerial Competency (including Competitive Estimating and Pricing)

Several individuals felt that managerial competencies of a subcontractor including ability to be competitive with estimating and pricing were key attributes in specialty contractors. The following comments support that emerging theme.

- *I'd like to know that they're honest. When we have something that needs to be priced, that they're giving us real numbers that aren't inflated.*
- *I would have to say promptness for submittals.*

- *I'd also want to see a resume and the specialty of the person that's going to be running the project for them, and have a face to face with the PM so that I knew exactly who these people are and I think is going to accomplish the job.*
- *I would want to see that that person had had the experience and has the know-how, the knowledge and the background to be able to handle that particular task. (3)*
- *I would say the first one by far is the top, the early and accurate pricing. (2)*
- *Competence in your bid. (4)*
- *The ability to price changes quickly. (2)*
- *Say competitive, reasonable, change order pricing. (3)*
- *Competitive pricing, the change order process, the reasonable competitive change order process and then probably the accessibility, ease of communication.*

Preconstruction Services

Another theme that emerged was the subcontractor's ability to provide preconstruction services. The following comments reflected this emergent theme, especially when asked how a subcontractor can add more value for a general contractor.

- *I would say probably in the bidding/design document phase.*
- *Value engineering does not mean the cheapest thing on the bottom of the shelf; it's the best way to give the owner what he wants for the least amount of dollars spent.*
- *Some of the things that subcontractors do for us that create a lot of value for us are pre-construction pricing or budgeting. We are involved in negotiating probably 99% of our projects and we get there by offering budgeting services to our clients.*
- *Pre-construction services would be, so there could be some customer service that's valuable there.*
- *Certainly on the front end when we are doing our pre-construction budgeting, we need to be able to rely on a subcontractor that can see beyond the drawings and that can kind of anticipate some of the missed details and fill the holes that are missing on early design packages so that when we provide our budgeting efforts for the client.*
- *Become more engaged and actually get into the preplanning from subcontractor is key. If they're just hitting the street running with the set of plans, that's not going to do it. We actually need them to engage in the preplanning and quality, pre task planning and quality control.*

Why Are these Competencies and Attributes Important?

The participants working for general contractors were asked why the subcontractors' competencies and attributes they listed were important. There were three major themes which emerged from the data collected in response to this questions: 1) to help in meeting the project owner's expectation; 2) to help the project be successful for all stakeholders; and 3) so the subcontractor is a better team player.

Meeting the Owner's Expectations

The following comments supported the theme surrounding "meeting the owner's expectations" when participants were asked, "What are the top three reasons why the attributes you listed are important to you and/or your project?"

- *[These attributes are] important to us because these are some of the attributes we as a general contractor will sell to an owner, or that we have as company attributes, so a lot of times we'll select subcontractors, specialty contractors, who are aligned with our company goals.*
- **Sounds like you believe that you're judged by the company you keep?** *Sometimes yes, if we're on a job and somebody falls down, we're usually the first one to hear about it. That's what the owner remembers is the fact that you had a specialty contractor that didn't do what they said they were going to do.*
- *Today's schedules and what the owner's expected, you don't have time to do anything but one time right the first time.*
- *It helps the project from a cost and schedule standpoint and from the owner's standpoint as well.*

- *I think safety is priority number one for my company. It is part of owner expectations to have someone that's on the ball and can maintain schedule and to give accurate estimates.*
- *We want to become the key contractor for different owners; that they know that there's honesty and integrity there. That's how I deal with my subcontractors and my owners; I want both coming back to me.*
- *We have a project to do in a certain timeframe for a client that expects it to be done and that is number one priority to us.*
- *Professional, being able to walk in front of an owner, our client, and negotiate change orders, review schedule, review issues being professional in that. The venue just looks better for us.*

Problem Solving

The theme of meeting the owner's expectation included "problem solving" as evidenced by the following comments.

- *If you have people that have done something a number of times and can offer suggestions on how it was done in the past, that's helpful, that's a bonus for us, so you know their ability to offer a different suggestions. An experienced opinion is valuable.*
- *The third thing I think is very important: construction is a moving target from day to day and so things get re-sequenced, things get delayed, schedules get revised and having a subcontractor that you know can work with you to help even their manpower resources without hurting themselves and hurting us.*
- *Number 2, they're solution oriented, so they advocate for speed, the other things required to build a job and finally it's an indicator of people.*
- *I mean everybody can be on their individual games and be up front with everything so I don't have to waste my time trying to figure that stuff. It makes my life a lot easier for the general contractor.*
- *Our company's got a culture of being fair and firm and upfront so if everybody that we work with or works for us comes to feel that same way is going to raise the level of everybody's performance. Everybody's going to stumble and stub their toe on something, but if everybody's on the same page, you can minimize that and you know damage control.*

Success

Several individuals mentioned project success as being not only important to them as general contractors but important to several different stakeholder groups. The following comments lead to "success" being an emergent theme.

- *I think it's important for us to be successful and if our subcontractors are working in those parameters, then we can be successful in our business and in our long term any partnerships that we've got. Then both of us will make money.*
- *I think it's very clear in this industry that you need people with experience and people with a positive attitude to get the project to finish successfully and so the project team experience is critical.*
- *Number one is an indicator of successful projects, competency and professionalism.*
- *You have to have those in place to make a project successful, you have to be able to perform a quality job on time, that's in budget and but that was in budget because they make money that's great, but its not my top concern*

Push the Schedule

Some of the participants indicated that the project is successful if a subcontractor "pushes the schedule". The following comments indicated this aspect of project success.

- *Second of all is I want somebody that I can count on that's going to push the job, that they've got a complete bid, they understand their schedule, they can organize their work there by being the one person that's pushing the job, not me.*
- *I want them pushing the job.*
- *A subcontractor in the kinds of buildings we built now that are a lot of metal stud framing, that phase of the work, that company can drive that schedule.*
- *Reliability from the standpoint it's important to us because we have a schedule to maintain.*

- *Because usually the schedule is the hardest thing to keep going in the right direction, the manpower issue becomes tied right to that.*

Safety Awareness and Planning

Several other participants felt that having a good safety plan, working safely, and completing the work with a good safety record was a major aspect of project success as evidenced by the following comments.

- *Safety, I can't ever buy a day on safety. If somebody goes down, I can't buy my way out of that, I can't, I can buy a day of schedule, I can make a day like force them to work Saturday. I can't ever get that day back, so if I can prevent any injury and save all this money and plus I don't have to feel bad about it.*
- *We have to maintain safety on the project or you can fall into a whole bunch of different consequences. I think its priority number one for my company.*
- *You have to do it safely.*
- *First of all safety because that is our core culture of our company and we want our subcontractors to have that same core culture. We want them to be that safety-minded.*

Team Player

The last theme that emerged as a reason why certain subcontractor competencies and attributes are important to general contractor personnel is that the subcontractor is a “team player”. The following comments allowed this theme to emerge.

- *We want a subcontractor to be a team member and look for values, things that can reduce their pricing.*
- *Preconstruction services, you know, just again like we were hiring them for their competency of their trade, they know their business. We're not, you know, electricians for example. We know a little, not to make us dangerous, but we hire them to be the expert.*
- *Everybody has to be on the same page in what they're doing.*
- *And that ties directly to the next item, professionalism, is; then there tends to be a lack of professionalism due to the breakdown in communication.*
- *Getting along with the other subs, it just helps the whole job flow well. Basically if you do those things, everybody's happy and making money.*

Subcontractor's Negative Attributes as Identified by General Contractors

There were four major themes which emerged from the data associated with this question for the participants working for general contractors. The first emergent theme associated with subcontractor's negative attributes was that some subcontractors can be “unprofessional, dishonest, and/or unreliable”. The second emergent theme was that some subcontractors can be “change order focused”. The third theme was that some subcontractors exhibit “poor communication” habits. The fourth theme emerged as “poor quality work” or “poor quality personnel”.

Unprofessional, Dishonest, and/or Unreliable

The most common theme that emerged when participants were asked to list negative attributes that subcontractors might have was that the subcontractor was unprofessional, dishonest and/or unreliable. This also tied closely to the subcontractor not being a team player. The following comments allowed these themes to emerge.

- *Unprofessional field staff, we see that quite often and they can be a really good subcontractor, but the mouthy, unprofessional things that we've all seen. I mean the rest of it all plays into dishonesty.*
- *They fly by the seat of their pants, type of deal, where they don't do the submittals in time or they just copy something and send it in is completely wrong, that type of stuff*
- *There are all sorts of things, not following the specifications, you've got somebody who thinks that they can do better without and they don't have to follow the substitution request process.*
- *I think the other one is that subcontractors don't treat their general the same way they want to be treated.*
- *They aren't organized or that they don't look ahead and so you have to spend a lot of time babysitting because they're not proactive and looking out ahead (2).*

- *For a sub to have the attitude that this is the way we always do it, meaning it's not necessarily the right way, its just that's how we've always done it.*
- *They would put people on the job without providing adequate supervision, just turning them loose, expect a general contractor to supervise their workforce.*
- *Just the being an expert or being a professional and a team player, that's something we don't get a lot out of subcontractors,*
- *They may have a lack of responsiveness, again back to that dishonesty or trying to pull the wool over somebody's eyes.*
- *It's the dishonesty; subcontractors will low-ball it coming into the job and try to make up for it on change orders. It does not work in my world and I cannot tolerate it.*

Change Order Focused

Based on the following comments from participants, it is a negative attribute for a subcontractor to be “change order focused”. It did not seem that those participants had a problem with a subcontractor asking for compensation for a legitimate change. The aspect of change orders that most bothered participants was if the subcontractor seemed to be “nickel-diming” throughout the project.

- *A negative attribute is the nickel-dimer, change order type subs that see that they're going to bring another 20% of value into a job for them by putting their hand out for every single thing.*
- *Well that takes a tremendous amount of management on our part to manage that, so I mean we really evaluate that when we're selecting subs, who are the nickel-dimers out there on changes and you know, unless there's a reason that we have to go that route, we don't want to go that route.*
- **Based on your experience, what are negative attributes which a subcontractor may have?** *You know, looking for nickels instead of the big dollar, so they focused a lot of their attention on you know, minor little change order instead of working collaboratively to figure out how to solve the problem.*
- *Coming in with one price at the beginning of a job and ending up with another at the end of the job. Like I said, the owner changes are one thing, but when it's basically submitting minor change orders and repeatedly doing that throughout a job, we can't accept that kind of approach (2).*
- *[Subcontractors] got a hand out for every little thing; it's not a two way street, its give me, give me; give me, but not a lot of return.*
- *Nickel and diming is a big one, not committed to provide the manpower. It's more of an attitude of me first and I'm going to screw everybody else over if I can make an extra nickel.*

Poor Communication

“Poor communication” was also a theme that emerged as a negative attribute that some subcontractors exhibit. The following comments from participants allowed “poor communication” to emerge as a negative attribute.

- *Poor communication I think is number one.*
- *Back to communication, late notification, lack of notification, poor insight and scheduling of their crew.*
- *Sometimes their communication or their over-communication of project issues is a challenge. Rather than resolution oriented, they want to be issue oriented.*
- *I'd say the biggest thing I've seen that is a disconnect for the pre-construction team, the team that won the project, handing it over to the team that builds the project. The guys in the field half the time don't have a clue as to what was promised, what was talked about and how it was designed to be built by their office team, that's one of the biggest holes we've ever seen.*
- *Their in-house communication, letting their field team know it's exactly what they expected.*

Poor Quality Work and/or Personnel

“Poor quality work”, which is tied closely to “poor quality personnel”, is a theme that emerged as a negative attribute which causes many problems for general contractors. The following comments from participants allowed this theme to emerge.

- *A subcontractor that might have a reputation for hurrying through a project and not hitting the level of quality control that we'd expect or that might be specified; that certainly is a big negative on shoddy work.*

- *You know obviously quality: knowledge of their work and quality employees (2),*
- *They would slam something out, not doing the quality (2).*
- *I would say that, the issues that we've had is communications can tie to quality too. We've had several instances of quality issues of things taking place and having to get their management involved in it and not being able to be resolved on the job site*

Conclusions

The data seems to confirm the assertions made by Beard, Loulakis and Wundram (2001) that the team consisting of contractors and specialty contractors is interdependent and that it is in the contractor's advantage to use subcontractors who are "proven performers" (p. 125). The small sample size does not allow the competencies and attributes to be ranked. The researchers reported the emergent themes in the order of perceived importance, but cannot state that one competency ranked more important than another. The general contractors confirmed that specialty contractors can have a huge impact on project success for the general contractor and for the owner. This potential impact is acknowledged when owners choose to utilize an alternative delivery method such as Design-Build, CM/GC, or Integrated Project Delivery where the specialty contractors may be selected based on their qualifications or best value. In these alternative delivery methods the specialty contractor may be selected by the general contractor for many reasons, many of which emerged as themes in this research project. These results might be considered generalizable if further research could be expanded to other geographic regions and the selection of participants was more random.

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