Good morning everybody, Dennis Engelbrecht with The Family Business Institute and the CEO Roundtable Program for Contractors.

Today, I want to talk about turning information into knowledge. What am I talking about here? Information in construction is plentiful. We have job costs, statistics, we have estimating statistics, we have information that comes in about performance on a job, our productivity rates, and all of these sorts of things regarding performance.

We know how we're doing in safety and things like that. There's lots of information but information is really just data, and so when I talk about information I'm just talking about the sum of all the data, all the experiences we've had, experiences about our employees, about the jobs, about estimating, about our financial performance, even about our owners, and our subcontractors, and our suppliers. We have information about all of these in terms of performance and how they've gone over time, but knowledge is different.

Knowledge is taking this data, what we've learned collectively, individually, or as an organization, to be able to make better decisions, to be able to give guidance to other employees, to be able to not repeat our mistakes, to be able to do something differently this time, because we have knowledge about what happened before, about the data. We've taken that data and we've become smarter with it, and that's what we're talking about.

How do you take all of this information that's available and turn it into knowledge in your organization? Well, there's several steps to this. The first, of course, is to have good processes to collect the data. For example, on your estimating. Very frequently we'll ask contractors, "What's your bid win rate? What percentage of your estimates do you actually win or what percentage of your project pursuits turn into a client?"
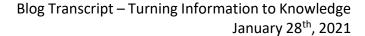
Oftentimes, surprisingly, they don't know. Now, they know how many bids they've done but nobody's bothered to go ahead and count, and so you need process to collect that data. Then, in order for that data to start to gain meaning, you need certain KPIs or trends. KPIs, I'm talking about Key Performance Indicators, so a piece of data out there. Let's just say I had a 20% bid win ratio. Okay. Well, is that good or is that bad?

In and of itself, 20% is meaningless. If I'm normally 10% and now I'm 20%, well that's an improvement. If I'm normally 40% and now I'm 20%, well that may raise questions of what I've done wrong, so trending of data is very important. What's normal? What has it been in the past? What are my targets in the future? That's where key performance indicators come in. They make the data relative to something else, relative to a goal that might define or create success for your organization.

We also need feedback loops. What if I'm going to stay with a bid win ratio because everybody in construction bids and everyone wins and loses, so a feedback loop. Well, let's say the estimating department knows what their bid win ratio is but with each estimate the executives swoop in and they put the fee on the job, and they determine what the ultimate price is. "Do we take a chance on this sub or on this sub?" Well, if they don't know the bid win ratio and they don't know where things are trending, they don't know where the backlog is, well they'd be making that decision in a vacuum so we have to have feedback back to that group. We have to have...

If you do a lessons learned at the end of a project and we find out that our productivity rates in our estimate weren't achievable, and we don't get that information back to estimating, well how can estimating make adjustments? If we learn that we had scope gaps and we forgot the material in this particular scope, how do we get that information back to estimating so they don't make the same mistake again, so we need a feedback loop with our data.

The next thing we do, if you have good processes, is you create checklists. Again, just focusing on estimating here, but let's say we have a ... Well, I was at a contractor a few months ago and as we interviewed the superintendents, we found out that they do a lot of hotels and they do a lot of pools.

Well, I had a superintendent say that for five consecutive jobs there was nothing in the estimate for covering the pool when they did the work overhead and things like that so that you could protect the pool, but there was a clear expense there of several thousand dollars to protect the pool from the construction going around it and it had been missed five straight times.

Well, if that estimator had a checklist for hotels and on that checklist it said pool covering or pool protection they would know to look for that in the drawings and look for that in the job and make sure that that got in their estimate, so you create checklists. You create checklists for your project turnover. You create checklists for your project review meeting to make sure you cover all the bases. That's part of turning information into knowledge again, closing that feedback loop by creating a checklist so that it doesn't happen again.

All of you have meetings, audible lessons learned, discussed in meetings so that people actually learn from that. Let's say you have a superintendent meeting and you had a certain thing occur on a particular project. Well, having your superintendent stand in front of everybody else and tell them what happened, what the problem was, what caused it, what the solutions are, that's part of turning data into knowledge again. Why should one person possess that knowledge when everybody can possess that knowledge?

The same idea exists with regard to safety. Hopefully, you track near misses, which is a leading indicator for safety performance. Well, if you track near misses and you don't share those near misses, people can't learn from the near misses. Again, first of all, you have to have the data, you have to be tracking and trending the data, but then you got to turn that data into knowledge by sharing that data and providing your employees with solutions and history and all of that so that the same mistakes aren't repeated over and over again.

Finally, one of the keys to turning info into knowledge is asking questions. Let's just say you're doing a financial review and each time you look at the GNA in your financial report you see numbers that are out of sync with what it should be. "Okay, I have 15,000 in marketing this month." Well, I don't understand what that is. Maybe it's in the wrong category, maybe it got mis-applied through the process or maybe it's an expense for a software that came in.

If I don't ask the question, I don't take this data and turn it into knowledge. Then, I'm in the same meeting the next month and I see another category that's maybe high today or low today. Again, if I don't ask questions, I don't turn the data into knowledge so asking questions is really key to that.

Finally, again, you have lots of data, hopefully you've got some feedback loops and you've got some processes. The final thing that probably in construction we do a relatively bad job of is training. In your training, collecting those data points, collecting that knowledge that some people have but maybe hasn't been spread across the organization, and having specific training designed to actually get those points across to give people, again, knowledge so that they can do better next time, that we don't make the same mistakes.

One last part of training is really mentoring. Do you have a good mentoring program so that when you have new employees you have somebody to teach them the lay of the land, the way we do things? Give them the knowledge, don't let them trip over every stair as they approach it. Give them advanced knowledge so that they can progress up the scale and become a high performer sooner, and mentoring can be a big, invaluable part of that.

Again, so think about your organization. Think about all the data that is available, all the experiences that are available that may be held by a single individual, and how do we get this knowledge across the organization. Make sure that you have the processes, the feedback loops, the training, asking a lot of questions, to really turn data into knowledge.

Again, Dennis Engelbrecht, Digging Deeper, thanks for tuning in today.