



EXECUTIVE BRIEF

STAFFING SHORTAGES, LOW PRODUCTIVITY, AND LOW PROFITABILITY



TURNING CHALLENGES INTO OPPORTUNITIES

It is a well-known fact that the **construction industry is notoriously cyclical**. Year after year, annual industry studies report the change in historical metrics, painting a picture of the current year as compared to previous years and the current economic cycle. The incremental change in these metrics from year to year can easily evoke a ho-hum response; if you fit into the statistical ranges and nothing is changing by much, what is there to be concerned about?





What if this historical view is leading you down a path that hinders your organization's long-term survival?



Another more disruptive cycle is already underway and is not driven by economics. It's driven by **technology** and will mandate change in the techniques and tools organizations use to manage their companies for the foreseeable future in order to remain viable.

If that is not disruptive enough, layer on **unprecedented talent shortages**, a condition the World Economic Forum¹ noted as a problem for the foreseeable future.

Combining technology disruption with talent shortages on top of chronically low productivity and profitability in the construction industry poses a serious question:

Can organizations maintain their status quo and survive, let alone thrive? **The answer is NO!**

Ending this vicious cycle will involve significant change and new ways of working. The new ways of working are found at the intersection of re-engineered operational processes, technology adoption, and new organizational structures that put the right resources in the right place for the right task at the right time. Organizations that successfully create this intersection could see double-digit productivity improvements and double-digit profitability improvements.

In this two-part executive brief, we first will establish that staffing, productivity and profitability are serious challenges that deserve serious attention. In part two, we will discuss how to take advantage of the available opportunities not only to address these challenges but to reposition your organization to thrive in this technology-infused world.



In part one we will discuss:

- Productivity improvements in construction are long overdue.
- The talent shortage rages on.
- Contrary to popular assumptions, Millennials are compensation minded.
- There is an overwhelming number of technologies emerging for engineering and construction.



PRODUCTIVITY IMPROVEMENTS ARE LONG OVERDUE

McKinsey Global Institute has published several articles on the chronic productivity problem in construction. In a recent article, [“Reinventing Construction: A Route to Higher Productivity”](#), McKinsey states:

“Even while other sectors from retail to manufacturing have transformed their efficiency, boosted their productivity, and embraced the digital age, construction appears to be stuck in a time warp. In the United States since 1945, productivity in manufacturing, retail, and agriculture has grown by as much as 1,500 percent; productivity in construction has barely increased at all. This not only represents a lost opportunity for the industry but costs the world economy. The industry needs a more productive approach. The tools for that more productive approach are increasingly available through digital technologies and new materials.”

The McKinsey article goes on to say that *“**productivity gains of 50 – 60% are possible and that those parts of the industry that could move towards a manufacturing-inspired production system could boost productivity tenfold.**”*



SURVEY COMMENTARY REVEALS A LOT

A recent employee performance survey at an AEC firm exposed the reasons why productivity is so low in the commentary from the survey respondents regarding daily operating challenges. The comments revealed issues with:

- Delayed communication
- Inconsistencies caused by a lack of standardized business processes
- Performing work during the day onsite and then enter information after hours
- Training that is not accessible
- Problems getting timely answers to questions about safety
- Requirements that are moving targets
- Lack of detail in work performed
- Problems with timely supervision
- And the list goes on...

**Are you ready to rethink your
operating approaches?**



SOUND FAMILIAR?

Think about how these productivity barriers compound across project stakeholders.

The McKinsey article also reveals that change is imminent, stating *“there are forces lowering the barriers for change: rising requirements and demand in terms of volume, cost, and quality; larger-scale players and more transparent markets, and disruptive new entrants; more readily available new technologies, materials, and processes; and the increasing cost of labor. Construction-sector participants should rethink their operating approaches to avoid being caught out in what could be the world’s next great productivity story.”*



THE TALENT SHORTAGE RAGES ON

Albert Einstein is credited with saying *“The definition of insanity is doing the same thing over and over again, but expecting different results.”*

[The 37th Annual Deltek Clarity Architecture & Engineering Industry Study](#) noted that the battle for talent rages on and there is no sign that the end of the war is coming soon. Lack of available talent remains the number one challenge that firms face and talent acquisition remains the most expensive business process.

Unfortunately, organizations are trying to solve the talent shortage problems with traditional tactics: add more human resources staff to try to find more candidates; or host more job fairs where hoping to get the right candidates rarely works out. Increasing the resources spent on recruiting and employee retention means your costs are rising, including competitive compensation.

DON'T CHOOSE INSANITY

So, what makes any organization believe that increasing the capacity of human resource operations will solve the talent shortage problem? It's insanity.

This is where the productivity argument takes center stage. What if you could increase your overall productivity by 10% - 20% let alone the 50% - 60% that the McKinsey article argues is possible? What could be the impact on your staffing requirements? What could be the impact on your human resource spending? How much could you raise compensation in order to compete?





MILLENNIALS ARE COMPENSATION MINDED

The 2015 FMI Industry Survey, [“Millennials in Construction: Learning How to Engage a New Workforce,”](#) noted an important milestone in the U.S. labor market. For the first time, *“millennials (individuals born between 1980 and 2000) surpassed the baby-boom generation as the nation’s largest living generation. According to the Bureau of Labor Statistics (BLS), millennials made up 34% of the nation’s workforce – a number that’s expected to grow to 50% by 2020. This is a significant shift for companies that now have to figure out how to most effectively attract, retain and develop these younger workers.”*

Given the drastic ebbs and flows the construction industry has suffered for decades, the industry faces an even bigger challenge when it comes to attracting and retaining new workers.

Competitive Pay Ranked Highest

The survey also notes “For years, thought leaders have been talking about how millennials are just out for a purpose crusade and how they are more interested in meaning than they are in money.” The research from FMI paints a much different picture. When asked what’s most important to them, millennials ranked competitive pay the highest.

SO HERE WE ARE AGAIN

If low productivity plagues your firm and your costs to attract and retain talent are rising, you are entering a vicious cycle. Spending more to attract, retain, and compensate the talent you need means you must either pass increases on to clients or your profits will fall. If you don’t have the staff you need to complete projects on time, your clients will lose confidence in you. If your clients lose confidence in you, your ability to win projects and protect top line revenue will be compromised. It’s a vicious cycle.



EMERGING CONSTRUCTION TECHNOLOGIES ARE OVERWHELMING

Technology is clearly part of the productivity answer for construction, but it's one of the most complicated verticals due to the sheer number of different technologies to choose from. This was well articulated in a recent [Constructionexec.com](#) post Joanna Masterson states, *"There's a lot for contractors to be excited about on the technology front: drones, BIM, mobile apps, sensors, wearables, telematics, smart tools, video documentation, robotics, 3-D printing, laser scanning, generative design and much, much more. But the prospect of all the analytics, alerts and automation can quickly turn overwhelming without a firm strategy and capable IT staff in place."*

A Closer Look at What it Means to Have a "Firm Strategy"

This technology age is dramatically different than anything in the past. It's in the news every day. Several industries already have experienced significant disruption, from retail to banking to automotive and there is no end in sight. It will continue to impact life and work as we know it for years to come. It's in the early stages of disruption in construction. It is the answer to increasing productivity, to competitive differentiation, and to sustaining profitability.

Strategy is Important

Leading the vision and execution of the strategy is important. These initiatives can simply no longer rest on the shoulders of the IT department. They must be executive led, cross functional, and continuously driving operational change. "Connected construction" is beginning to permeate the industry as the new mandate. It won't be long before you will be required to communicate information and results in a real-time model to both internal and external stakeholders. Are you ready and properly positioned?



SUMMING IT UP

It's time to face these challenges head on. In order to overcome the power of the status quo that holds back progress, you need a new approach. As we stated at the beginning of this brief, this new approach is grounded in new ways of working that are found at the intersection of re-engineered operational processes, technology, data, and new organizational structures that put the right resources in the right place for the right task at the right time.

In part two of this executive brief, we will discuss five key ingredients that are key to successfully creating and leveraging this intersection.





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