FMI

QUARTERLY

ISSUE THREE

2020

RESET AND RESPOND

LEADING THROUGH COVID-19 AND THE NEXT NORMAL

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FMI QUARTERLY 2020

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Welcome to the FMI Quarterly

By Chris Daum

2020: A Long, Strange Trip

Welcome to the third edition of the 2020 FMI Quarterly. We are publishing this edition during what is arguably the most challenging period of our careers. The global pandemic is affecting every corner of the planet, creating unprecedented levels of change, complexity and uncertainty across industries, including the Built Environment.

With this in mind, the enclosed articles aim to help leaders and managers understand, contextualize and arm themselves with useful tools and new ways of thinking during this time of extraordinary change.

One article discusses the critical importance of developing a strategic framework for making decisions. Such a framework is important in *any* business environment, but is especially critical during volatile and uncertain times. In most situations, strategic decisions incorporate three key elements: market potential, market position and state of readiness. The authors take an in-depth look at the role that each element plays in developing a good strategic decision-making framework.

Another article delves into the challenges facing the heavy highway and civil markets. With the FAST Act expiring, heavy highway and civil contractors will face new challenges. Working through these issues will require nimble and dynamic strategies. Just what direction these strategies must take will depend upon the course of events related to surface transportation funding at the federal and state levels.

A third article describes the nature and benefits of *agile leadership*. Has there ever been a time in any of our careers when we, as leaders and managers, needed to be more agile in our thinking, behavior and decision-making? Probably not.

Lastly, we've included a timely piece on ***business differentiation*** in market cycles where supply versus demand tilts in favor of project owners. In down markets where there is perceived overcapacity, the urge to compete on price (versus adding value) often feels compelling and necessary. From this article, you'll gain insight into what it means to differentiate your company around demonstrable value that matters to owners (and that they're willing to pay for), and learn how to compete more effectively through the cycle.

The damage wrought by COVID-19 is winding its way through the general economy and will certainly impact the Built Environment in both anticipated and surprising ways. We believe the biggest challenges for engineering and construction firms are still months away and will be substantial. On behalf of my FMI colleagues, we trust you will find the content of this edition of the Quarterly helpful, and we are ready to connect with you further on these—and any other issues—you and your team are dealing with during this truly extraordinary time.

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How to Develop an Effective Strategic Decision-Making Framework

By Rick Tison and Jay Bowman

Companies that avoid a nearsighted view and take a holistic view of new market opportunities will be best positioned to succeed in 2021 and beyond.

After enjoying nearly a decade of economic growth, engineering and construction (E&C) organizations have had to revamp their priorities quickly. That means moving beyond traditional strategic planning, which assumes a relatively known or static future and doesn't work in times of continual disruption. As any business leader whose operations survived a prior industry shakeout can attest, times aren't easy right now. Some companies could pivot quickly; others have chosen not to. This is normalcy bias (i.e., wishing the present away long enough for things to return to normal).

As E&C companies begin to get their arms around how 2020 will ultimately unfold, many are focusing on the potential opportunities and the big moves they need to make now to avoid a repeat performance in 2021. Whether they're chasing new types of clients, entering new markets or pursuing new types of work, the ones that put the right work into their planning process will face the best odds when it comes to actually enacting those changes.

Avoiding the "Big-Two" Mistakes

Strategic decision-making is a critical first step in setting your business apart from the competition. This type of decision-making requires problem-solving from multiple angles (e.g., not just looking at a market that is growing and assuming it should be pursued). In today's volatile and uncertain environment, the weight of these decisions is even more important. And the insights that feed into these decisions are both critical and challenging to develop.

Two of the more common mistakes that companies make when developing their strategies include:

- ***Taking too narrow a view.*** Some companies base their decisions on a single or limited number of inputs. As a result, they miss the "big-picture" view and instead deploy a tunnel-vision approach to what's going on in their world. For example, executives may rely on a single forecast, react in response to a competitor's actions, or assume that they can take on something they've never done before. This type of shallow thinking usually results in confirmation bias (i.e., we've already made the decision and are looking for only those things that support it). The moral of the story aligns with the famous Mark Twain quote, "It's not what you don't know that gets you in trouble the most. It's what you know for certain that just ain't so." This mistake is also influenced by the fear of missing out. In other words, "If we don't move now, we will miss our chance. We can figure it out later once we have our first project."

  Companies that take too narrow a view don't conduct the rigorous analysis needed to be able to make good decisions. This oversight can be fatal in a volatile, uncertain market. Assuming, for example, that an expansion into the Phoenix market will work because "it's a big market" is not reason enough to make that substantial move. On the other hand, a more appropriate evaluation would factor in not just the size of the market, but also an understanding of how that market operates; how well the company would be positioned in that market; who the key owners and decision-makers are; and what the competitive landscape looks like. An internal evaluation that addresses the company's readiness to move into the new market, the available resources to support the move, and whether the right leadership structure is in place are equally as critical.

- ***Relying on disconnected viewpoints.*** This happens when companies base decisions on multiple sources without developing a single, composite picture incorporating those inputs. The result is siloed decision-making that, while better than the narrow view, still doesn't take full advantage of the various sources of information and intelligence that are right at the company's fingertips. The disconnected viewpoint can lead to competing—if not opposing—activities, thus reducing or eliminating the likelihood of success. Finally, it can also lead to too much "busy work" and a rush to check off the boxes and get everyone involved in strategies that don't advance the organization's overall mission.

  Relying on disconnected viewpoints is a classic mistake that E&C companies make when assessing new market opportunities. We often see company leaders look at the overall market size of those opportunities and then determine whether or not to pursue them. Right now, for example, the fact that construction was deemed essential in most markets has left many firms feeling as if they dodged the COVID bullet. They have a pretty healthy backlog because the economy was doing great at the beginning of the year. A lot of those projects are still on the books right now, but some of them will probably disappear (the longer the pandemic drags on). The reality is starting to set in that 2021 will be more challenging than 2020, and companies are, unfortunately, basing their decisions and strategies on singular data points (as opposed to making holistic evaluations).

This disconnected view often leads to confusion, and those with the strongest voices win (i.e., force of personality). Anecdotal evidence is often presented as fact, and competing viewpoints are shut down. Remember, "Ego is concern about who is right. Truth is concern for what is right."

Three Key Elements of Good Strategy

Strategic decision-making is important in any business environment, but it's especially critical during volatile, uncertain times. In most situations, great strategic decisions incorporate an understanding of three key elements: market potential, market position and state of readiness. Here's an in-depth look at each and the role they play in a good strategic decision-making framework:

1. ***Market potential describes your market's expected addressable opportunity over the near and long term.*** How well do you understand the characteristics that determine your addressable opportunity as part of understanding your overall market potential? Examine the historical performance of the market to gain a firm understanding of how consistently it has performed in the past. Look at key points like growth rates (slow, steady, declining, volatile?), the forecast, the market composition (which segments are growing? which ones are declining?) and market resiliency (based on current and future market conditions).

   Market potential can be measured several ways, with the most important being an understanding of the project types that make up those most won or successfully delivered. Key points to consider include:

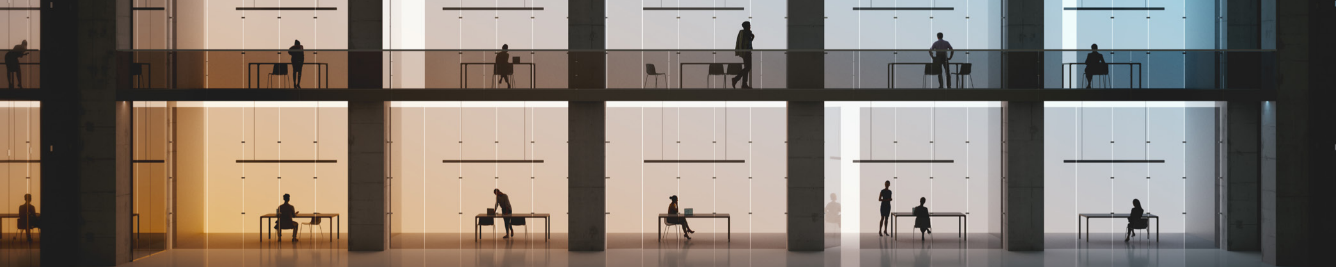
   - Project value
   - Contract or delivery method
   - Union, nonunion
   - Owner type

   With this exercise, your ultimate goal should be to understand not only the total market opportunity but also your addressable market and how well that market is expected to perform over the next few years.

2. ***Market position is your ability to access your potential market.*** Your market position views the potential market through the lens of prospective clients and competitors relative to your current value proposition and capabilities. Questions to ask include:

   - Do your prospective clients "buy" the way you "sell"?
   - Are they receptive to your value proposition?
   - What are the market opportunities and how can we access them?

   Once you've answered these questions, assess the overall structure of the competitive landscape. Is it highly fragmented? Or is it heavily consolidated to the point where there are just one or two dominant players that you'll be competing against?



Digging down into these details helps you understand how to best respond when attempting to access the potential demand.

3. ***State of readiness describes how well you can achieve your strategic objectives, drive change and perform in the market, given the current state of the business.*** A great market opportunity is only as good as your ability to act. Your state of readiness reflects your ability to adapt your business to changing demand drivers, buyer preferences and competitive threats. In other words, can you adapt your business to current market realities? Here's where you'll look carefully at how your existing skills and capabilities align with the potential market opportunity; whether you have the resources to get out there and pursue it; and if you have the right business practices or systems in place to support this move.

Finally, given that you may need to change the way you go to market—particularly in our current, volatile business environment—do you have the leadership and management systems in place to set direction around that change (and then have the accountability in place to see it through)? These are all important points to consider when developing your strategic decision-making framework. Your state of readiness exercise should include these key considerations:

Current capabilities. How well do our skills and abilities align with what is valued by owners (e.g., are we really great at delivering quality when owners value schedule)?

Internal business practices. Will our existing business practices align with the requirements of this market opportunity?

Culture and engagement. Does the nature of this work align with our culture? (e.g., does it cater to a travel model when our people are used to working locally?) And how engaged is our team? Will engagement support or hinder our ability to drive change?

Financial condition and investment capacity. Be sure to factor in balance sheet strength, financial performance on existing work, and financial condition to make investments. Make sure you have the financial capability and the necessary investments to be successful.

Leadership and management systems to drive change. Consider the depth and breadth of your leaders, their success record for driving change, and whether you have the management systems in place to be able to drive accountability for progress while ensuring agility.

Combined, these elements help companies evaluate the attractiveness of different strategic options and prioritize future investment in any market conditions (also see our article on [The Changing Game of Strategy]).

Forging Ahead

The sense of urgency to act is high, but the cost of failure could be even harder to bear. Whether your company entered 2020 with an ample war chest or not, the key points outlined in this article will help you devise a strategic framework that fits your own company's needs. Remember that market potential is really about what you can reasonably expect from your future revenue opportunities. Understanding your market potential includes, but is not limited to, the overall size, shape and direction of your market.

Also, remember that a single forecast can be a dangerous thing, and the wrong assumption about market size or opportunity can quickly derail your growth plans. Composition is a critical element when interpreting a forecast, which may reveal a growing market that is, in fact, declining for the specific type of work that your company pursues. Keep these important points in mind as you assess new opportunities, review historical data, get honest about your company's current position, and forge ahead with new initiatives.

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Playing to Win: How to Drive Growth Through Differentiation

By Cynthia Paul and Olivia Alligood

Differentiation is all about value, which represents those things that a customer is willing to pay a bit more for.

Thinking about differentiation is a bit like the thinking that goes into the game of football. On the surface the concept is simple—advance the ball downfield to score. Once you successfully reach the end zone, you kick a field goal for an extra point; or if you really want to take a risk, run or pass for an extra two points.

Company differentiation is a similar concept: Moving downfield is a lot like the project pursuit process in the industry. It requires a lot of sweat, effort and energy to weave in and out of the competitors who also want to gain control of the football. Is it better to pass or run the ball? What is the best way to leverage the talent on the team? What will competitors likely do to regain control of the football?

Differentiation is easy to understand. It takes a strategy and nuance to be successful. **Do not let price be the only point of differentiation you offer a client.**

In football, scoring a touchdown is great. It's the equivalent of winning the first project with the client. But just like football, you do not want to stop there. You need to go for the point after. In construction that means getting set up to win the second, third, etc., project with that same client. You want to set yourself up for more "points" with that client.

Differentiation means to stand out in ways that will make the customer pick you, preferably at a premium price, over other qualified competitors. Simple. The challenge is pulling that off successfully, project after project.

So What Is Differentiation Really?

Differentiation is all about value, which represents those things that customers are willing to pay a bit more for. It is something that helps *them* advance *their* goals and objectives in a beneficial manner. It is all about the customer, not the contractor. Differentiation happens in the customer's mind; not only is it something the

Deciding to pursue a project on price and price alone is a legitimate strategy choice. It is simply better to make that choice, to pursue on price alone, as few times as necessary to meet your strategic objectives.

customer values and will pay a bit more for, but also it must be something that your competitors are not (or can't) deliver consistently.

Sometimes customers value different things than we do. Because the customers are paying for the "difference," they get to choose what does and doesn't have value. Differentiation might be one large thing, or, more likely, it is layers of points of value that add up to positioning you over the competition.

Right now industry firms are scrambling for ways to stand out and be different. There will likely be a rush to the bottom as some competitors—short on work—cut their prices to win work. Price is always a part of the selection process. If value doesn't stand out clearly among competing firms, then price will be the differentiator that wins the work.

Some customers disproportionately value price over anything else. If price alone is the name of the customer's game, make a good business decision to pursue or not. If you want to play that game, you know the rules—find strategies that allow you to get low and still make money. We will talk about a company-level strategy, built on efficiency, that allows contractors to compete on price and yet win on their bottom line.

If the sole selection criterion <u>is</u> price, go in with your eyes wide-open. Take as much cost out of the pursuit and construction process as is feasible to deliver the required quality and safety. If you do not want to play that game, walk away before investing a lot of time and energy chasing the work.

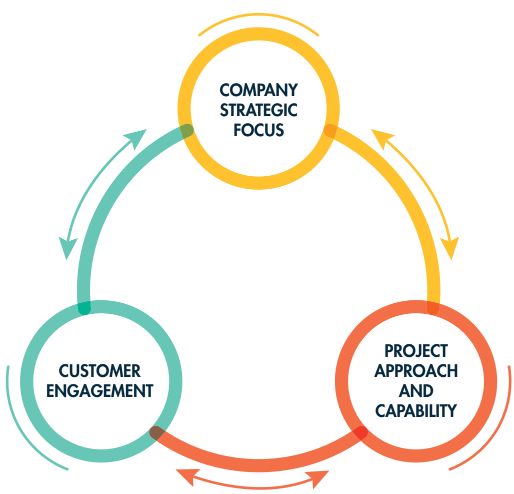
Creating or Establishing Layers of Differentiation

Differentiation comes in many layers. For example:

- You might be highly differentiated from competitors in one market segment, yet not in others.
- You might easily differentiate from midsize competition, yet when competing with larger companies, find yourself in a commodity position.
- You might be strongly differentiated in a market segment, yet given what a competitor is likely to offer on a specific project pursuit, you are back on the football field with the need to call an audible to change the planned play on this down.

That is part of the nuance of differentiation. In a general sense, differentiation comes from:

1. Company-level strategic focus
2. Customer engagement and expectations
3. Project approach and capability



1. *Company-Level Strategic Focus*

A company's point of view about the future is the first frame of differentiation. It is not that a vision of "being the best in the industry" sets you up for differentiation; rather it is the approach to "how" you become the best that sets you up to be different. Stepping back and looking at the range of ways companies position themselves, it comes down to a continuum or line they move across. Strategic focus ranges from best in class to transformative. For simplicity, we will talk about these two ends of the strategy continuum, skipping over the stops in between.

Companies with a strategic focus to be best in class win based on their operational effectiveness. They also:

- Cut cost out of the system by being efficient.
- Study and implement industry-leading practices.
- Embrace prefabrication to gain the on-site efficiency of installation.
- Leverage handheld technology to streamline reporting and gain real-time cost projections.
- Use drones to decrease the time it takes to conduct rooftop inspections.
- Look to stay ahead of the curve and provide options to customers that drive overall project efficiency and performance.

Let's look at technology when considering differentiation. Being the first one to adopt a new technology might provide short-lived differentiation, but that ends when your competitor buys the same thing. The real advantage comes from *connecting capabilities and results that can be achieved through technology,* not the technology itself. It is not what it "is," it is what it "does."

Similarly, when the U.S. Green Building Council first came out with LEED accreditation, it was a differentiator. You had accredited people and your competitors did not. The capability has quickly been absorbed. In some market segments, on larger-sized projects, having accredited people is an expectation. It is no longer a differentiator. Regardless, it is what the capability does for the customer and the project that sets it up to be a differentiator or not.

Companies that position on transformation position to win on innovation. They are looking for the next amazing thing to bring to their customers and projects. They also:

- Provide a unique level of company-owned equipment on a marine project, knowing other competitors will be constrained in their ability to access it in the open market.
- Are sophisticated with using technology that allows the company to have a central war room where construction can be monitored and supported real time.
- Use augmented reality goggles to "walk" customers through a completed site to give them control over changes before construction even starts.

- Incorporate nanotech in the PPE (personal protective equipment) of tradespeople to monitor their health and safety.

All of these are in use in the industry today. All are unique approaches that are slowly being absorbed into what all competitors provide to customers.

A company's strategic focus will impact what it values and stands for. It impacts how employees approach working with clients and engaging their people and trade partners. It impacts how, and if, they engage in the industry and their communities. In short, it impacts how they show up in all they do.

2. *Customer Engagement and Expectation*

Customer-level differentiation comes from how you engage with your customers and what solutions you offer. You can differentiate based on customer experience; customers will value that experience and be willing to give you an advantage in selection and perhaps price. It is a bit easier to sell this to existing clients who have experienced the difference, versus a new customer whom you just are getting to know.

You might stand out by having deep knowledge of your customer's unique expectations, budgetary limitations or risk posture, or maybe there is something that you incorporate regarding its business purpose for the project. For example, years ago, I worked with a team specializing in hospital projects that focused on driving safety. After dealing with issues related to impractical hospital design, the team added a hospital safety designer and found several opportunities to improve safety and patient outcomes in the overall design. For a manufacturer concerned about getting its product to market quickly, you might come up with a way to cut two months off the construction process or turn over its plant's operational parts earlier than expected. The key is to get creative and see the world from the customer's perspective.

Remember that to qualify as differentiation, the value you bring to the table must be something that your competitors are not or cannot provide easily or consistently. You will want to match many of the ideas and solutions offered by competitors just to stay in the game. In other words, when looking for differentiators, it must be something that makes you stand out from competition in ways that are meaningful to the customer.

3. *Project Approach and Capability*

Differentiation also comes from the project itself and how you approach design and/or construction, project kickoff and turnover. It might be as straightforward as taking a different approach to a medical office building (MOB) renovation because you constructed the original building and know a thing or two about the soil conditions. Here are a few other differentiators that you may not even know you have:

- What about your use of project technology that allows greater communication with the customers' end users that can save them time and energy?
- Does your approach to risk management on-site provide the client with a business advantage that helps deliver greater value for his/her customers?

- What different materials could you use to drive lifetime value to your customer?
- What about your team's unique experience and depth?

For example, one contractor differentiated itself at an engineering college by incorporating its construction project and progress into the engineering curriculum. Hiring a team to film the project, challenges and approaches became a real-time learning lab that professors used in their classrooms. The plans, monthly updates and schedules became teaching tools. The superintendent served as a guest lecturer and talked about the difference between design and constructability. If the college had a media or arts program, project filming might have provided another opportunity to leverage the construction project into a real-time learning opportunity.

Raising the Bar

Like football, being successful at differentiation requires strategy and action. It is not static. You need a game plan as a company and as a team. You need to run different plays, depending on risk, project complexity and available talent while also considering who the customer and competitors are. Differentiation is nuanced, situational and multifaceted.

Keep asking yourself:

- Does this add meaningful value to the client, or is it simply an expectation due to the type, size and complexity of the project?
- What do we have to do to ensure that we deliver 100% on our promises?
- How does the customer look at this project/situation differently than we do?
- What can we do to demonstrate our difference and the value it adds?

Being a differentiator means adding value for the client. Meaningful value generates meaningful differentiation. With construction firms clamoring for projects, having the necessary capabilities to complete a project is not enough. Understanding the client's needs on a project, no matter how many similar projects a firm has under its belt, will drive the firm to satisfy the customer, fostering a positive relationship based on trust and understanding.

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Agile Leadership: Five Capabilities Needed in the Post-COVID-19 Era

By Rusty Sherwood and Sara Tsahakis

Learn from industry leaders on how you can start building agility today to position your company effectively for future "black swan" events like the global pandemic.

Capturing how the world has changed since the beginning of 2020 may require a Ph.D. in euphemisms. Between a pandemic and a social crisis around equality, the unprecedented level of uncertainty is indescribable. The last few months have been challenging for everyone, and the engineering and construction (E&C) industry and its leaders have not been spared. We interviewed a few of the industry's most agile leaders to understand how they responded to what they call the "Great Fog of 2020." Our goal was to uncover how they adapted to the new normal. We were also curious about their experiences or, more specifically, about their biggest challenges and what, if any, silver linings they could find.

In recent months, these leaders faced struggles in various forms, and one of the most salient ones was by far the *unprecedented* level of uncertainty. "In past recessions, we usually *think* we have an idea of what's about to happen later," says Pete DiMaggio of Thornton Tomasetti. "This time, we really have no idea. The fog isn't lifting." This is amplified by the fact that everyone is on edge, and that stress shows up in different forms. It can be difficult to make sound decisions in a complex situation when everyone is acting unpredictably.

Agile Leadership Behaviors

Responding to increasingly volatile, uncertain, complex and ambiguous (VUCA) environments requires leadership and organizational *agility*. We define agility as "the ability to quickly and successfully respond to changes in the environment." Our previous research indicated that agile leaders tend to possess these five competencies:

Learns Quickly

- **Highly curious** about trends and the competitive landscape.
- **Keeps himself/herself** informed about anything that could impact the organization's strategy.
- **Understands complex topics** quickly.
- **Readily acquires new knowledge** and skills and shares anything relevant to the organization's goals immediately.

Demonstrates Resilience

- **Rarely gives up**, even when he or she encounters new, unfamiliar or unanticipated challenges.
- **Learns from his or her mistakes** and maintains a high level of awareness of his/her own strengths and limitations.
- **Embraces new opportunities** and calculated risks and pursues new goals with energy.

Empowers Others

- **Recognizes the big picture**, sees the path to getting there, and communicates it effectively.
- **Inspires others by encouraging** a culture of innovation, collaboration, high standards and speed.
- **Delegates** the appropriate level of decision-making authority and empowers others to take initiative. Increases others' level of responsibility to accelerate learning.

Leads Change

- **Maintains constant awareness** of situations or opportunities that could require change.
- **Advocates for making changes to improve organization** and is able to implement lasting changes in an inspiring way, by exemplifying adaptability and flexibility.
- **Clarifies the purpose** of the changes by setting clear direction.
- **Creates buy-in** by understanding and engaging key stakeholders.

Thinks Strategically

- **Focuses on the big picture** and makes the best possible strategic decisions by relying on a balance of data, experience and intuition.
- **Maintains constant awareness** of industry trends so that strategy can be promptly adapted when needed.
- **Encourages innovation and risk-taking** to solve business problems and respond to environmental shifts.

Most leaders in the Built Environment demonstrate these competencies to some extent. By its very nature, the industry requires leaders to be scrappy and solve complex problems quickly. Through interviews, we found that three of these competencies ranked as most important when dealing with the pandemic/social crisis combination of 2020. Those who demonstrated a higher degree of proficiency in their ability to **empower others, lead change and think strategically** were the ones who adapted the most quickly.

According to our interviewees, quick actions had positive impacts on revenue and the health and safety of employees. Jim Kilpatrick, president of Fortis Construction, describes how these three competencies worked together: "Empowering others has been the most important for us. You realize that as a leader, you don't have the capacity to handle it all; so the only way to survive was to let go and let others make things happen and honor their decisions. Empowering others created capacity that allowed the executive leaders to think strategically. After the tactical quick response stuff was under control, we then broke off to focus on the plan ahead." The ability to learn quickly and to demonstrate resilience, on the other hand, felt like table stakes in the recent events—most leaders thought—and didn't make as big of an impact on results.

Empowering Others

If there was one key differentiator on how well a business pivoted to success in this new environment, it was the ability of top executives to empower others. In an industry traditionally based on a command-and-control structure, leaders can't always let go and allow others to make decisions. But when the influx of information is dizzying, maintaining full control over an organization significantly slows response times. Put simply, there is just no way to digest and interpret everything in enough time to react quickly.

For Lee Slade, senior principal and chairman of the board with Walter P Moore, deciding at the corporate level what a COVID-19 response would look like for each office didn't make sense. Instead, its executive team pushed down decision-making to local leaders who were atop quickly changing local situations, while providing high-level guidance that ensured actions were aligned with companywide goals. For Kilpatrick, it meant bringing in one more layer of site leaders to be part of a companywide decision-making process, reaching further down than is normally done. Finally, Plant Construction's CEO/president Chris Rivielle relied on field leaders who were part of the company's Leadership Council (composed of senior superintendents) to lead the firm's response and ensure safe and productive work in the field. In all cases, empowered leaders made decisions that felt right for their regions or markets and freed up time for top executives to think strategically and focus on what's next.

The most challenging aspect of empowering others is letting go of control and trusting that leaders will make the right call. This can't happen if you haven't intentionally developed local or field leaders to be able to make the right calls. It requires time and focused efforts to set direction and equip those local leaders with facts and data that enable sound decision-making. Empowering others is a tricky competency that requires many things to be set up in advance. In absence of this foresight, empowerment can't

happen in a meaningful way. In addition to having the right talent in the right seats, the structure must be stripped of unnecessary red tape, and the company's guiding principles must be clarified.

Striking a Balance: Slowing Down to Move Fast

Don't confuse agility with impulsivity. While both involve quick decision-making, the difference lies in the ability to adapt ***successfully*** to the environment, which often starts with ***slowing down***. With special ops military leaders, the mantra "slow is smooth, and smooth is fast" is foundational to leading under uncertainty and high stress. Several of the leaders interviewed highlighted (back in March) the importance of slowing down to fully understand the situation and its implications on their businesses.

As Mike Squarzini, Co-CEO of Thornton Tomasetti, points out, it would have been easy to look around and follow suit in a *downsizing effort* because that is what others were doing. Instead, his team took time to look at the data and understand its implications within the specific context of his business. As a result of the slowdown, it secured the financial aspect of the business and then left it to local/regional leaders to decide whether or not reductions in force were needed. In the end, taking ample time to make decisions is still faster than making the wrong decision and having to go back to fix your mistakes.

"Making a bigger change early helps avoid incremental additional changes later." This is how Josh Sherfield, CEO of Quiring General, approached health and safety measures. Instead of adhering to the minimal CDC guidelines (which were becoming stricter by the week), he pushed safety to its maximum. As a result, he avoided overwhelming the staff with constant changes and allowed time to focus on other important issues.

It's difficult to slow down during normal times, but it feels quasi-impossible to do so during times of crisis. It seems absurd for leaders to spend several hours ***thinking*** every day, when there is so much to do. However, there are tremendous benefits in taking time to just think. For example, Kilpatrick spent two hours every day thinking and crafting thoughtful communication in the form of a newsletter to his troops. This exercise forced him to remain laser-focused on the *Stockdale Paradox* (maintaining unwavering hope while confronting the brutal facts) and put his thoughts on paper. The resulting letters not only brought him clarity, but also built a deep sense of connection with all staff. It also helped the staff better understand the company's potential while maintaining an awareness of the tough times ahead.

During an all-encompassing crisis like the one we're dealing with right now, survival is top priority, and planning for the future is difficult. Trying to focus on the present and the future all at once is like putting "a microscope up to one eye and a telescope up to the other, you just get a headache."[1] The leaders interviewed all separated the efforts to address the ***here and now*** and the ***future***, whether it's through separate task

[1] "Emerging From the Crisis." HBR. July 2020.

forces or by first securing the business and *then* tackling the long term. These interviews (and our previous research) found that leaders who spend time working on the business during a recession come out stronger. What we also found is that despite flexing significantly, leaders interviewed kept one thing unchanged: their company's core.

Agility Requires Core Stability

One of the most misunderstood aspects of agility is that while it requires adapting to the environment, the *core* of the business must remain the same. Being agile isn't about a full transformation every time there's a shift in the market; it's about adapting while staying true to who you are and what you stand for as a company. All leaders interviewed explained that their core values stayed at the forefront of every decision made since the beginning of the pandemic. If they stood for protecting their people first, for instance, then they were quick to send people home (even if they didn't have all staff members set up to work remotely). "We did this so quickly that we ended up sending people home in cabs with full-size desktop computers and monitors because their health was our No. 1 priority," says DiMaggio.

Quiring General's focus on customers allowed it to stay closely connected to clients, even if it meant offering help and empathy to the very clients who reduced their revenue by pausing projects. For all leaders interviewed, the core values were the lighthouses guiding them through a heavier than usual fog.

One common denominator across all of the leaders we interviewed was significant time spent building a great organization when times were good. They had clarified their core vision and values and developed their leaders at all levels. Once things started unraveling, they were ready to engage and leverage an already agile organization to respond. Here's how you can emulate their success strategies in any business environment:

1. **Check Your Core Values.** Most companies have core values, but they're not always useful. Evaluate yours, confirm their authenticity and start reinforcing them. Take a hard look at your recent decisions—are they in line with your values? If not, the values are either not the right ones or not integrated in decision processes.
2. **Evaluate and Invest in Your Bench of Agile Leaders.** Review the five agile competencies and take a hard look at your bench of leaders across the company. Do they possess at least some of these behaviors? Are these behaviors evenly distributed across managers and leaders in the company? And how can you start investing in the development and strengthening of these critical competencies?
3. **Set the Stage for Empowerment.** Do you have leaders who are empowered to make decisions? If not, start exposing them to strategic discussions and make sure they clearly understand the vision. Establish a way to share data with all your leaders. If they're equipped with the right data, they can make the best decisions.
4. **Separate the Microscope and Telescope.** Create task forces independently focused on *present* and *future*. One goes deep on internal data while the other analyzes macro future trends (i.e., unemployment and medical advances like vaccines).

5. **Don't Wait to Enact Change.** If you've been putting off making important changes to your business, just go for it. The current situation accelerated change initiatives, but those firms that were ready to pivot quickly are now well ahead of others.

Dealing with a crisis doesn't mean that you have to bring all business improvement endeavors to a halt. Despite all of the uncertainty, one thing that we can be sure about is that the likelihood of future black swan events like COVID-19 is high. Nothing keeps us from building our agility today so that we're able to fend off future instances more effectively.

Leaders who contributed to this article include:

Pete DiMaggio and **Mike Squarzini**, Co-CEOs, Thornton Tomasetti
Lee Slade, Sr., Principal and Chairman of the Board, Walter P Moore
Jim Kilpatrick, President, Fortis Construction
Josh Sherfield, CEO, Quiring General
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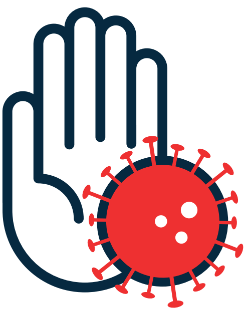
Ownership and Succession Planning During and After the Storm

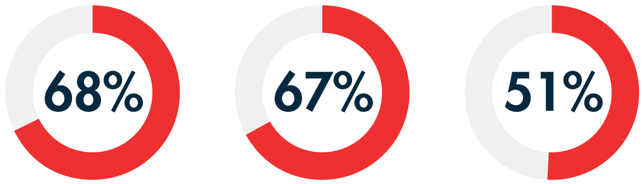
By Jake Appelman, Matt Drake and Rob Pulley

Building momentum for effective ownership transfer and management succession both during and after the crisis.

Ownership transfer and management succession (OTMS) in a closely held construction firm is challenging in the best of times. Transition brings a tightly interwoven set of challenges that include—but aren't limited to—people, money, legacy and emotion. The last 10 years provided an ideal backdrop for succession thanks to strong work backlogs, profitable work that accelerated management buyouts, an active mergers and acquisitions (M&A) market, and up-and-coming leadership teams focused on building out corporate infrastructures for continued success.

That all changed in a matter of weeks when COVID-19 ground projects to a halt, with 68% of businesses reporting directive to stop work and 51% to furlough or lay off employees.[1] Suddenly, many construction businesses were confronting the new reality of work stoppage, furloughs, layoffs, significantly reduced profitability and an overall cloud of uncertainty and volatility.





of respondents said they had been directed to **stop work** on one or more projects.

of respondents reported experiencing **project delays** or disruptions.

of respondents reported having to **furlough or terminate workers** as a result of COVID-19

Source: AGC Survey, April 2020

[1] "Forty Percent Of Construction Firms Report Layoffs Amid Widespread Project Cancellations As Economic Impact Of Coronavirus Grows." AGC. April 10, 2020.

Succession's Role

Managing succession is often a complex, long-term process that's highly sensitive to external shocks. Disruptions in profitability can delay internal buyouts, and distractions can set transition plans back by years.

The effects of COVID-19 will serve as a "succession" stress test for many engineering and construction (E&C) companies. With FMI's accumulated experience of 65-plus years of guiding ownership transfer and management succession within the Built Environment, **these critical factors for success are consistent across the decades:**

1. Starting with clear objectives for transition
2. Beginning your plan early
3. Putting a strong emphasis on talent and culture development

This Quarterly article examines trends in ownership transfer and management succession using industry survey data to identify which changes, shifts and permanent adjustments the pandemic will drive. Snapshots were taken from the 2020 FMI OTMS survey—conducted in collaboration with the Construction Financial Management Association (CFMA)—and compared to previous OTMS industry surveys from 2017 and 2013.

Delayed Transition Plans

Predictably, the survey found that COVID-19 will negatively impact earnings for 75% of E&C companies. Because 56% of construction businesses transition to existing management teams and family members, ownership transfer is highly dependent on profitability to fund ownership transfer. A typical internal equity transfer can take seven to 10 years when profitability is consistent. That's because a portion of earnings enable future owners to buy equity over time.

When earnings get squeezed, ownership transfer plans are likely to be delayed or extended for longer periods than originally planned.

This will be uniquely challenging for business owners who are close to retirement or expected to reduce their equity risk in the near term. Of those surveyed, 35% plan to exit their businesses in less than five years while 52% plan to exit their businesses in less than seven years.

Owners who delayed transition while enjoying strong distributions and growth over the past five to 10 years may face the reality of a long, grinding recovery in the years to come (particularly if they didn't actively and aggressively develop next-generation talent during the "boom" years).

For those companies that are in the middle of a transition or expecting to make this move in the next two years, **20% of respondents believe COVID will delay the start of their ownership transfer plan.** Furthermore, 27% believe COVID will extend the duration of their transfer, 26% expect minimal impact or delay, and 11% believe it will reduce total proceeds from ownership transfer.

What is lost in the statistics are the realities and stories of individual leaders and their companies. FMI's experience tells us that several of the following scenarios may play out for many in the industry:

- Business owners in their 60s or 70s who postpone retirement and leave their lifetime investment at risk for much longer than desirable.
- Minority owners who see the reality of a long recovery and decide to retire, leaving majority owners once again holding most of the risk.
- Potential owners who may "age out" and cease to be viable shareholders due to the time required to buy shares, generating wealth and then selling back to the next generation.

Transfer Option Restrictions

Pre-COVID, the M&A market enjoyed a rare combination of robust economic conditions, low interest rates and a healthy mix of private equity and strategic buyers. These factors helped create a strong phase where third-party sales became a reality for many companies.

This dynamic slowed in early 2020, and COVID-19 accelerated that downward trend. As potential buyers are managing their own internal issues with a focus on core operations—and as debt capital markets tightened—M&A activity slowed tremendously. According to Mergermarket, a provider of M&A data and intelligence, transaction volume is down 32% compared to the previous year, and transaction values declined by 53%.[2]

Our survey data reflects this trend, with just 5% of respondents planning to sell their businesses to a third-party buyer (down from 8% in 2017 and 17% in 2013). Since most construction businesses are privately and closely held, a reduced M&A market leaves an internal sale or liquidation as the primary options. Even in the best of times, a third-party sale at a compelling valuation is an option for only a fraction of firms. With COVID restricting that option further, business owners should be realistic about their hopes for an outside buyer materializing to make a major purchase.

ESOP: Continuing to Gain Acceptance

Employee Stock Ownership Plans (ESOPs) continue to be a viable and attractive option for owners of construction companies. Our research indicates that 9% of respondents plan to sell to an ESOP, compared to 12% in 2017 and 4% in 2013. According to the National Center of Employee Ownership (NCEO), in 2018 (the most recent data available) construction companies led the way, creating the highest number of new ESOPs versus all other industries.

A company that chooses to become an ESOP has control over the number of shares to be sold to the ESOP, whether debt will be utilized to finance the transaction, and how to compensate key employees/ management post-closing, among other factors. In addition, S corporations

[2] Statistics are based on 1H20 (June 2020 vs. June 2019).

that choose to become 100% ESOP-owned companies have the unique advantage of being exempt from all federal income taxes, while C corporation owners that sell to an ESOP can defer capital gains taxes. Therefore, an ESOP can present significant tax benefits for the seller, the company and its employees and can be a good hybrid transfer option compared to selling to a third party and executing an internal management buyout.

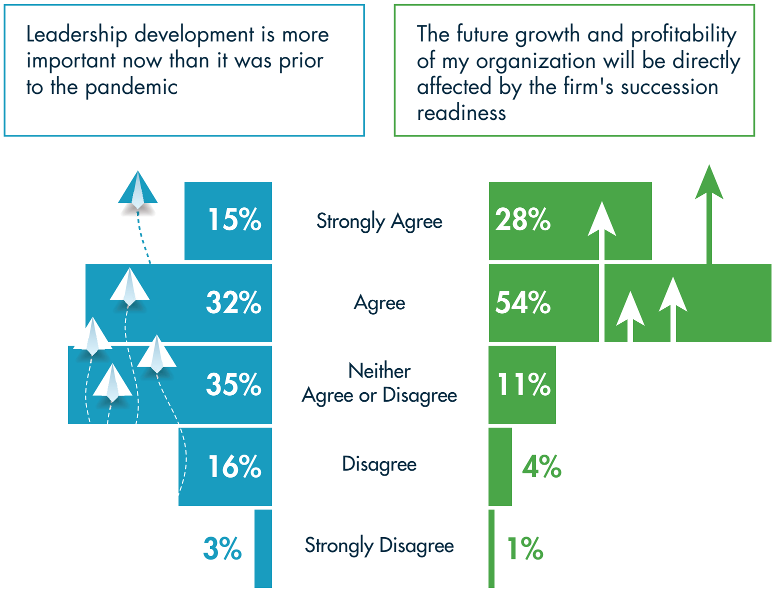
Leadership and Talent Development

Regardless of the ownership transfer method, leadership depth will always be the single most critical factor in succession. For many next-generation executives, COVID represents a life-changing event in their leadership and one that will test their character, agility, empathy and vision.

Anecdotally, FMI has already seen multiple examples of new executives and owners responding with grace, poise and clear direction. Alternatively, we have seen new owners struggling to adapt and instead regressing to leadership styles that only worked during pre-COVID times. Learning that a group of leaders and new owners is not ready is painful in the current market, and something that will surely endanger and delay the best-intentioned succession plan.

According to our survey, 47% of companies either agree or strongly agree that leadership development is more important now than it was pre-pandemic (compared to 19% who disagreed or strongly disagreed). Also, 82% of owners see their businesses' future growth and profitability being directly affected by the readiness of their successor(s).

As a result of COVID-19 and the economic downturn ...



Source: FMI/CFMA 2020 OTMS Survey (snapshot August 2020)

Questions to Ask Yourself Now

In 2020, COVID-19 created a storm of volatility and uncertainty, stress-tested resources and balance sheets, and accelerated the need for strong next-generation leaders. As we've seen from past recessions and disruptions, long recovery periods, insufficient resources and next-generation leaders that go undeveloped represent a dangerous combination.

With all of the turbulence and unpredictability in the market right now, it's the ideal time to check the pulse of OTMS, starting with a rigorous look at what will change forever, what principles still hold regardless of market cycle, and how business owners can adjust their plans.

As you work through this "pulse-checking" exercise, ask yourself these 10 key questions:

1. How have my transition goals shifted in the current market?
2. Who will lead the business moving forward?
3. Is our succession plan aligned with our vision and our strategic and operational goals?
4. How aligned are the current and next-generation owners and leaders in terms of ownership, growth and vision for company?
5. What is most important to current owners—legacy and continuation of the business, control of the business and/or maximizing financial return?
6. Where are points of risk/overreliance on key leaders?
7. How are we preparing successors for future leadership roles?
8. How will the current disruptions (e.g., economic recession, COVID-19) impact our ownership transfer plan?
9. Do we have effective buy-sell agreements in place to protect the organization and all shareholders?
10. And, finally, is there a more effective and efficient ownership transfer technique available (i.e., is an ESOP an effective alternative)?

We've studied construction firms and their ability to perpetuate enduring success from one generation of owners to the next. Achieving that goal usually hedges on building and leveraging holistic OTMS plans that clearly define how and when equity will transfer, delineating who will lead the organization within strategically pivotal roles, and preparing these leaders to succeed in these future roles. These plans also help formalize contingency strategies that identify interim leadership when emergencies and/or unforeseen key role vacancies occur.

Finally, these plans create a clear transitional road map for the leader in the current position, detailing what must be done to exit well and prepare for a life outside of work. There is no better time than the present to prepare for this big step as we face a future filled with uncertainty and ambiguity.

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Fleet Management Dynamics in a Post-Pandemic World

By Mike Clancy and Will Gruy

Following best practices in fleet management can mitigate key challenges and create a competitive advantage for companies that maintain a high level of fleet performance.

What a difference a few months make! As 2020 opened, heavy civil and other equipment-intensive contractors were looking forward to a strong construction season, with almost all segments of the construction industry pushing full steam ahead. In fact, the biggest challenge most contractors saw on the horizon was that the continuously tightening labor market might make it difficult to staff projects. Even in early March, the tone at CONEXPO and other industry events was one of cautious optimism, with most attendee contractors believing that the disruption caused by the coronavirus would be of limited duration and impact.

Of course, we know differently now. Six weeks into the pandemic, construction unemployment had reached nearly 17%, moderating somewhat by the end of June, but still high at 10.1%[1]—with the broader U.S. economy experiencing its worst unemployment crisis since the Great Depression. Most states are facing dismal financial futures in the near term, with social distancing rules and quarantines leading to sharp declines in gas tax revenues, tolls and user fees. According to Dodge Data & Analytics, infrastructure project starts through July 2020 were down 20% versus last year,[2] and many more planned projects may be deferred until funding prospects improve or clients achieve better visibility on their financial circumstances.

While the picture for infrastructure and other equipment-intensive contractors is still better than that of the vertical construction market, the entire construction industry faces significant headwinds. Unlike firms in the building space—with lower asset intensity—equipment-intensive

[1] Bureau of Labor Statistics. https://www.bls.gov/iag/tgs/iag23.htm

[2] "Construction Starts Lose Ground in July." Dodge Data & Analytics. August 17, 2020.

contractors face distinct challenges in dealing with their fleet assets and managing their cash positions. Fortunately, following best practices in fleet management can help mitigate these challenges while creating a competitive advantage for companies that maintain a high level of performance in this area.

Best Practices in Fleet Management Create Optionality

The best time to squeeze costs out of capital-intensive equipment fleets was last year; the next best time is right now. As the newness of the external economic shock fades, it became more and more apparent that it was time to prepare for a VUCA (Volatile, Uncertain, Complex, Ambiguous) world. However, you don't have to pursue a departmental transformation to score some quick wins; there are many actions your firm can take immediately to improve its fleet situation.

There are two overlapping concepts central to our discourse. The first is that there is value in flexibility (optionality) because it can be used to reduce risk. In a VUCA environment, the value of company flexibility increases just as in financial markets, the value of options increases with market volatility. Many buyers of financial options do so to hedge and reduce risk in their portfolios. Likewise, efficiently adding flexibility to a firm's equipment fleet decreases risk exposure.

The second concept is that equipment access—not necessarily ownership—is what really matters. With increasing availability of rentals, firms have more ability to put equipment to work that they do not own. While ownership has many advantages, the flexibility of non-ownership access to equipment is particularly resonant in a VUCA world, where the value attributed to flexibility inherently increases.

For fiscal year 2018, the average net fixed assets to total assets for a heavy civil or infrastructure contractor in FMI's database was 31%. With equipment representing the lion's share of net fixed assets, the fleet is the prime place to start in the quest to build your firm's flexibility. There are three key ways to increase flexibility (i.e., optionality) that are valid in the best of times and essential anytime there is a potential for market tightening. While optimizing and building flexibility into a large equipment fleet is a significant endeavor that often requires organizational changes, there are tactical actions one can take today to get some quick wins in the near term.

A Highly Utilized Fleet Is an Efficient Fleet

There are three critical questions about utilization that contractors should answer:

1. ***Are you tracking utilization, and do you believe the data accurately reflects reality?*** Ask your superintendents and equipment operators what, if anything, is wrong with the utilization data. They will likely tell you if the numbers differ from what they're seeing on the front lines. Among the common problems we see are bad telemetry data and manual data-entry inconsistencies. When even a small portion of the automated usage readings are clearly off, doubt is naturally cast on all readings. What good are the readings if some are off and all are suspect?

   While the fleet team is fixing the telemetry issue, manual entries will often be used as a substitute for the "real" data. This can introduce data entry errors. With two overlapping, imperfect systems, the ultimate accountability for a single source of truth is rarely agreed upon. Tracking meaningful utilization requires a single source of truth that everyone believes in. Therefore, step one in maximizing utilization is identifying any real or perceived inaccuracies in the utilization data and addressing them efficiently.

2. ***Is utilization data being used to drive the right decisions?*** Has utilization improved over time? If not, then this area likely needs some work. If the current and prior data isn't trustworthy, then gaining visibility in utilization trends over time may be difficult. When you can't lean on quality data, other metrics can reveal whether the trend is heading in the right or wrong direction (e.g., calculating the ratio of ownership costs to revenue over time). If your work mix and fleet age are stable, then gains in fleet efficiency will surface as lower ownership costs per unit of revenue. More ownership costs per unit of revenue can be the result of only three things: a higher ratio of new equipment in your fleet, a higher ratio of equipment-intensive work in your work portfolio, or less efficient equipment utilization.

3. ***Are behavioral or organizational issues negatively impacting utilization?*** The first two issues can generally be isolated or adjusted to obtain a directionally accurate understanding of fleet efficiency over time. This third issue is the easiest to identify and the hardest to fix! Isolating and resolving behaviors that hurt utilization are critical to an efficient fleet. The most common of these behaviors is equipment hoarding; but other improper behaviors can result when equipment department efficiency is measuring by anything <u>other</u> than equipment uptime. The classic adage of "you get what you measure" applies in this situation. Real solutions to these issues generally involve organizational changes that include how and what we measure. While effective, these changes take time and energy to get right. For quick wins, simply elevating the importance of monitoring utilization damaging behaviors is one way to ensure it is not overlooked by superintendents and project managers.

Maintenance: Pennies of Prevention Versus Pounds of Cure

In a VUCA time when capital is likely to be constrained and every cost is under the microscope, balancing the corporate budget by squeezing cost and mechanic hours out of the fleet function is tempting. However, it is important to remember that keeping all of your assets up and working consistently is one of the best ways to ensure strong financial performance on your projects. In most cases, maintaining a diligent focus on preventive and condition-based maintenance is less expensive than equipment failures on the job site and costly emergency repairs.

Ensuring that fleet assets don't break down seems simple enough, but it's an area where firms often make "penny-wise, pound-foolish" decisions. It is absolutely critical to remain disciplined in two key maintenance behaviors to ensure high uptime and lower repair costs. Those behaviors are:

1. ***Keep up with preventive maintenance schedules.*** While this seems intuitive, if your equipment department must meet a budget—and if that budget is cut—preventive maintenance is generally either stretched or abdicated to the operator in the field (and therefore is unlikely to happen). Equipment budgets should be allocated based on uptime requirements. Doing otherwise will simply hide and even exacerbate losses. Ensure that any cuts to equipment spend are not at the cost of preventive maintenance.
2. ***Reemphasize the importance of condition-based maintenance.*** This is a fundamental second-line defense in averting costly on-site breakdowns. As your field operators recognize wear and tear or minor issues with equipment, follow up and resolve the problems before those issues become significant failures, downtime and emergency repair costs.

We often see condition-based maintenance lessen in importance as people are stretched and costs are reduced. Don't give in to the temptation of easing condition-based maintenance resources or emphasis.

Cost Confidence Creates Estimating Exactitude

You should always know the cost of putting work in place—a metric that's especially important in periods of VUCA and in hypercompetitive markets. As with labor costs, knowing your equipment costs is limited by the accuracy and accessibility of performance data. Having solid utilization data and a well-managed maintenance program that mitigates the risk of expensive surprise repairs is critical. When you know your costs, you can assess the value of flexibility in your equipment account. You can then make decisions about how best to access the equipment needed in your operations—via ownership, leasing, short-term rental or some other mechanism.

In times of heightened uncertainty and competition, assess whether your owned or leased fleet assets should remain in your portfolio. Compare your internal rental rate to the market rate for similar equipment. Note that in a VUCA environment, equipment rental houses will likely have very favorable rental rates and contract terms, and nontraditional sources for short-term equipment access will also exist (such as dealers offering new or used equipment for rent or competing firms subcontracting out their fleet assets).

There may be a few reasons why your rates are radically higher (or lower) than the rental market. First, does your rate accurately reflect your cost to own and operate that class of equipment? If not, the gap between the rate and the actual cost of owning and operating the equipment needs to be reduced before you can understand how to efficiently run your equipment. If your rate does reflect the cost you experience owning and operating that class of equipment, it means you do so worse (or better) than the rental house.

If you own excess equipment and cannot easily dispose of it in the secondary market, you can temporarily lower your internal rates to below the rate of an outside rental in order to create more competitive estimates and drive increased utilization. This may create a virtuous cycle where increased utilization leads to lower overall cost (due to owning costs being spread over more working hours). It could also create an artificial subsidy that prevents you from replenishing fleet assets. Thus, implementing such subsidies is a strategic decision that must be made at the highest levels of management.

If you can dispose of excess equipment or defer acquisition, ask yourself, "What is the value of access to that equipment without having to own it?" Think of this as your option value—aka the premium amount you will pay for the option to access a piece of equipment without having to own it. Using this method, you'll know what types of equipment to own and which you just need access to.

Principles of Fleet Management Remain Evergreen

By assessing your fleet management approach, you can get peace of mind and help avoid costly trends from going unnoticed until it is too late. Implement initiatives to maximize utilization, keep equipment from breaking down and better understand your fleet costs. Check (and recheck) these critical success factors today. Active monitoring of key equipment functions <u>now</u> will make equipment department optimization more achievable as backlogs become clearer and planning more accurate.

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How to Win in an Uncertain Heavy/Civil Construction Market

By Brian Moore

How heavy and highway construction contractors can use good insights, facts and forecasting tools to pave the way to future success (in any market conditions).

The global pandemic has spared very few industries, with the domestic construction industry feeling some of the biggest impacts of the unexpected, worldwide COVID-19 outbreak. With the pandemic continuing to take a toll on human life, livelihoods and organizations, the heavy and highway construction segment has found itself between a rock and a tight spot as federal funding fluctuates, projects are postponed and business priorities continually shift.

For example, it's natural to assume that the pandemic's impacts will be lessened by the promise of federal support to rebuild critical infrastructure. However, the daily news reports don't necessarily align with how the heavy and highway construction industry typically behaves—both during and after an economic recession.

For this and other reasons, reading one or two news or market reports and reimagining an entire business model around them is not a smart move right now. Instead, engineering and construction (E&C) firms must consider several alternative contexts and then develop strategies that define new ways to play—and even win—in these times of uncertainty. Doing so allows an executive team to focus on both executing current strategy as well as building alternative plans that will enable quicker shifts as context changes.

Almost a Quarter of Heavy/Civil Contractors Are Unprepared

According to a recent FMI survey, 1 in 5 heavy/highway contractors had yet to develop scenario plans for 2021 and 2022. That means 20% of these contractors are waiting around for something dramatic to happen that will either 1) indicate things will return to "normal" or 2) point them in the right direction for the next years.

Many of the 80% of companies that say they've developed their scenario plans are basically just using a series of best-case/worst-case financial projections. They use these projections to determine what overhead reductions are required to remain profitable along with a basic understanding of just how low they're willing to bid in order to maintain backlogs.

These are barebones tactics that don't work in any market—let alone during a combined pandemic-recessionary period. Given the crisis management required in the immediate aftermath of the pandemic, however, these knee-jerk reactions are understandable. It's time to start thinking beyond those initial reactions, gain a better understanding of how this event will impact operational performance, and develop plans that provide the best opportunity for success across several "what if" scenarios.

Stagnation, Modest Growth or Home Run?

As contractors strategize for the next several years, FMI advises using a comprehensive approach focused on understanding the potential market shifts that could take place. Analyze the potential impacts of each broad future on the organization, develop strategies focused on good future decision-making, and consider these possible future scenarios:

Alternative Context One: "Status Quo"

- The FAST Act is not reauthorized, but rather a continuing resolution is offered, extending funding at current levels. There is no significant federal stimulus bill for highway and transportation spending, but rather a modest bill that shores up states' funding to make up for lost tax receipts during the COVID crisis.
- Heavy civil and highway construction will likely see impacts from state and municipal budget shortfalls in many areas while some, more financially sound areas will fare better. Those regions that see growth will become beacons for companies that are willing to branch out geographically.
- New highway construction takes a back seat to system preservation as departments of transportation (DOTs) conserve cash while maintaining system capacity.
- A limited number of large projects will be available. The few large projects that are tendered will become hypercompetitive as firms seek to shore up dwindling backlogs with large, anchor projects.

Alternative Context Two: "The Modest Increase"

- FAST Act reauthorization occurs with a minimal increase in year-over-year spending, in line with prior increases. Federal stimulus happens in early 2021, but investment in highways and transportation remains modest.
- This scenario evolves much the same way the last several years have, in terms of market potential, but with a few twists. Decline in other segments creates a more competitive civil and highway sector as adjacent markets retrench (e.g., residential and commercial site development, private utilities, pipelines, etc.).
- Primary strategies likely support choosing the right markets/segments to pursue and differentiating based on capabilities and experience, where possible. Market intelligence on

customer buying practices and competitive positioning will drive key strategic decisions, while business development becomes a means of identifying prospects and getting in front of opportunities early.

Alternative Context Three: "The Home Run"

- Investment in civil infrastructure is considered critical to rebuilding the U.S. economy and is therefore a national priority.
- Some version of the significant highway and transportation bills currently under consideration is signed into law.
- State departments of transportation and transit agencies receive substantial federal assistance to shore up budget shortfalls.
- Primary strategies likely focus on managing growth profitably, including prioritizing opportunities and management discipline; building organizational structure and the processes to support it; and leveraging incentive compensation, training and development, and performance management tools.

It's important to think of these as a *potential range* of future scenarios. Prepare for a blend of one or two of the above scenarios, versus taking the tunnel-vision approach on the one that will most likely materialize. The strategies that companies pursue will depend on exactly how the context evolves, and on the organization's long-term aspirations and capabilities.

Creating a Winning Strategy

Going up against an invisible opponent is never easy, but that's exactly what heavy and highway contractors are grappling with on a daily basis as they work to offset the impacts of COVID and a national recession. The good news is that there are steps companies can take to prepare themselves for success in *any* business conditions and regardless of which of the three scenarios outlined above actually materialize.

A good starting point is to define the scenarios *most likely* to develop in the market. Then, build out an understanding of how the market is likely to evolve over the next two to three years. As companies work through this exercise, they should factor in these key points:

- ***How demand in each segment*** will change and how the drivers of that change will transpire. In addition, sensitivity analysis of key drivers should inform thinking.
- ***How customer buying practices*** will shift. This will occur in ways that can likely be anticipated—and perhaps influenced—so it's important to get clarity on this subject.
- ***How competitors are positioned*** for the market as it exists today and how they will likely react to changes; anticipate their reactions.

It's important to note that the specific details of each company's strategy will vary considerably based on current context and on the expected gap in market position that will occur as that context changes. To build out the most comprehensive plan, companies should consider:

- ***Market Insights***—Staying ahead of market shifts requires tracking leading indicators that would dramatically impact go-to-market plans (i.e., demand drivers, buying practices and preferences, and the overall competitive landscape). Success in uncertain times demands the capacity and discipline to constantly monitor changes that are occurring and recognize trends before competitors.
- ***Go-to-Market Plans***—Success in a new market environment requires adaptive go-to-market execution and the translation of existing capabilities into new market opportunities. Winning in a post-COVID market may require companies to position themselves differently to succeed in tangential markets. Focus and intentionality are key; business development efforts require very detailed, accurate guidance on how to best allocate time and resources.
- ***Preconstruction/Estimating***—Cost and schedule certainty will be paramount for owners post-COVID. Contractors with advanced preconstruction services and design-assist capabilities will be best positioned to deliver. With overhead and revenue in flux, pricing models and overhead recovery strategies must be continuously updated and revisited to avoid pricing out of the market or bidding below costs.
- ***Operations***—COVID-related market disruptions have significantly impacted productivity, shut down projects in many parts of the country, and created a hypercompetitive market environment. Companies will need to reset expectations around productivity—both labor and equipment—and look to restart projects that were shut down during the crisis (see our latest insights around Critical Project Restart Strategies).
- ***Organizational Design***—There is no perfect structure; each option creates tradeoffs in how the organization goes to market that impact speed to market and control over decision-making. The right structure aligns resources to execute strategy most efficiently. Potentially significant changes in staffing could necessitate structural realignment to maintain organizational effectiveness and efficiency.
- ***Compensation Programs***—Programs impacted by financial and operational performance work best when employee activities are aligned with strategic objectives and company values. The best plans achieve a fast (and high) return on investment (ROI) by attracting, motivating and retaining ideal talent while preserving equity returns (see Compensation Planning in Uncertain Times for more details).

Ready for a Multidimensional Chess Game?

Planning in a complex environment like the one heavy and highway contractors are operating in right now is a lot like playing a multidimensional chess game. Unlike a "normal" game of chess, this one requires companies to consider multiple possibilities and develop plans for multiple scenarios to be prepared to shift courses as market information unfolds.

Given the uncertainty in today's market, a robust and iterative process—coupled with solid identification of key market fundamentals—will help companies navigate the uncertainty and detect any early warning signs. This, in turn, will ensure that those organizations are not only prepared for success but also ready to go head-to-head with the next disruption.

Brian Moore is a principal and strategy practice leader with FMI Corporation. Brian focuses on consulting with contractors on various strategic, organizational and operational issues. The focus of his work is the identification of future construction trends, market conditions and competitive issues that impact strategic decisions. He can be reached at ***bmoore@fminet.com.***

Strategies for Strengthening Resilience in a VUCA World

By Michael A. Davis, RPLU

The business environment can change overnight, presenting daunting, unanticipated challenges as well as genuine opportunities for those who have prepared for the unexpected.

Most of us have heard the term "the new normal" so many times that it has taken on the texture of a cliché, except that it's not. For each of us as individuals and for the businesses that drive the global economy, this is no longer the same world we were living in a year ago. That includes construction, where the changes wrought by the coronavirus pandemic will be transformative and long-lasting. However, those changes need not be obstacles and may well present opportunities to businesses with strategies robust and flexible enough to manage the challenges ahead.

Indeed, the COVID-19 pandemic has driven changes that many of us have yet to fully understand and appreciate. It's one of the greatest challenges most businesses and individuals will ever face, demanding sometimes painful adjustments. As history has shown time and again, global events like pandemics, global financial crises, international trade disruptions and widespread civil disorder can arise at the most inauspicious times, impacting business operations and throwing societies into disarray virtually overnight.

Some of you may have heard or read the acronym VUCA. It stands for volatility, uncertainty, complexity and ambiguity—a perfect description of the world we live in today. The term VUCA was coined in the 1990s by the U.S. Army War College to describe the dramatic changes and strategic challenges of the post-Cold War period.[1] Since then, the term has been widely adopted by business leaders and strategists in many sectors to help emphasize the need for effective strategic

[1] Forsythe, George (Brig. Gen.); Kuhla, Karen; Rice, Daniel. "Understanding the Challenges of a VUCA Environment." Chief Executive. 15 May 2018.

planning. Understanding the forces described in the VUCA model can help organizations effectively execute the dual disciplines of crisis management and disaster recovery planning.

A 2018 article in Forbes[2] categorized the key characteristics of the VUCA world as:

Volatility – The accelerating pace of change in an industry, market or the world in general. The faster the changes, the more unpredictable the world becomes.

Uncertainty – The extent to which we can confidently predict the future. The more uncertain the world is, the harder it is to predict with any degree of reliability.

Complexity – The more factors and the greater their variety, the greater the complexity that companies will experience in the business environment.

Ambiguity – A lack of clarity about how to interpret a situation, as when information is incomplete, contradictory or inaccurate.

Responding to the Unexpected

Many would argue that we've always operated in a VUCA world; it is simply the challenge of doing business in a perpetually changing environment. True enough. At almost any time, an organization can be affected by events with widespread, even global, consequences. Some, like natural disasters, can be insured against, while others cannot. But the timing and impacts of major events, a perfect example being the coronavirus pandemic, are difficult to predict.

The immediate effects of the pandemic on the design, engineering and construction industries were the temporary shutdowns of many projects in hard-hit regions of the U.S., a difficult proposition in a cash flow-intensive business such as construction. However, as the daily peaks of confirmed coronavirus cases subsided in some heavily impacted regions, we have seen the rapid resumption of many projects. Additionally, a number of those considered "essential" never did completely shut down.

Looking ahead, the industry will likely experience significant growth in public spending as both sides of the political aisle find common ground on the need to rebuild critical U.S. infrastructure. Additionally, many companies will be called upon to perform work required by corporations as they reconfigure their facilities to contend with a future in which the coronavirus may always be a part of the environment. However, the construction industry, like all other business and industry segments, will need to adjust operations to align with the new normal imposed by the outbreak.

Construction professionals are accustomed to the need for robust site safety practices, including a wide variety of personal protective equipment (PPE) and tools. Face masks and shields are common on most job sites for everything from welding, protection against harmful dust associated with various abrasives, to the potential inhalation of dangerous vapors released by volatile chemicals. That being the case, it is not a stretch to extend the usage of PPEs to help protect against infection by the coronavirus. In addition, new wearables and apps to help combat the transmission of COVID-19 will be coming online to gather data about markers such as employee temperatures and to assist in maintaining appropriate physical distancing.

[2] Kraaijenbrink, Jeroen. "What Does VUCA Really Mean?" Forbes. 19 December 2018

Strategies for Resilience in an Uncertain World

The Harvard Business Review[3] has addressed the strategic challenges of driving sustainability in a VUCA world, offering the following recommendations:

- Manage **volatility**. Build in slack and devote resources to preparedness. Examples would be to stockpile inventory or overbuy talent. These steps can be expensive, so the investment should align with the perceived risk.
- Navigate **uncertainty**. Invest in information; collect, interpret and share it. This works best in conjunction with structural changes, such as adding information analysis networks to help reduce uncertainty.
- Reduce **complexity**. Restructure where required, bring on or develop specialists, and build up resources adequate to address the degree of complexity within your organization.
- Clarify **ambiguity**. Experiment; understand that cause and effect require generating hypotheses and testing them. Design your experiments so that lessons learned can be applied broadly.

[3] Bennett, Nathan; Lemoine, G. James. "What VUCA Really Means to You." Harvard Business Review. January-February 2014.

Insights for Navigating a VUCA Environment

Over the years, FMI has spoken with a wide range of individuals—from executive coaches to senior consultants and numerous executives from design and construction companies—to gain valuable insights into how to successfully manage and respond to the challenges of this VUCA environment. The discussions revealed five areas that strategic thinkers in the design and construction environment share in their approach to an increasingly uncertain world.

1. **Anticipate and prepare for the unexpected**. Good business intelligence promotes faster, more effective decision-making and can make the difference between seizing an opportunity or being left behind. Company leaders must develop a deep understanding of the strategic "ecosystems" within their organizations and how they relate to the wider industry. They must also stay on top of competition; owner behavior; political, economic and regulatory drivers; and other forces interacting with each other. Executive mandates should center on developing "eyes and ears" that span geographies, industries and businesses, with a specific focus on understanding customer and competitor behavior.
2. **Collaborate and test new ideas**. Company leaders consume a vast amount of data and information, which can leave them feeling overwhelmed and paralyzed in decision-making. This makes it particularly important for leaders to engage in collaborative dialogue with peers to test

and confirm ideas and check assumptions about evolving risks and their potential impacts. Going it alone in decision-making in this increasingly volatile world may be a recipe for disaster. Building consensus across a leadership team will help ensure broader buy-in and support for important strategic decisions and more "skin in the game" in sharing outcomes and the need for course changes.

3. **Adopt and strengthen critical-thinking practices.** Leaders who qualify as critical thinkers question their beliefs and assumptions, and continuously ask themselves what might be done differently to respond to a volatile and unpredictable business environment. This mindset should not devolve into "paralysis by analysis," but rather provide leaders with opportunities to self-correct and monitor their lines of thinking in an environment of changing information and conditions. Critical thinkers are open to new ideas and are willing to challenge their beliefs and investigate contrasting opinions.

4. **Commit to continuous learning**. A passion for lifelong learning is an essential characteristic for any successful business leader. Truly strategic thinkers actively seek new perspectives about organizational problems and potential solutions. And leaders attuned to the realities of a VUCA environment recognize that continuous learning will be critical to long-term organizational agility, creativity and resilience. A combination of training, mentoring and executive coaching can help such leaders stay on lifelong learning tracks. Some have even recommended that leaders form "personal boards of directors" comprised of peers, external experts, company employees and even friends and family members with whom a strategic decision-maker might consult and share ideas before arriving at a course of action for a particular issue or problem.

5. **Become an agile thinker, while remaining focused on the horizon**. Agile thinkers will necessarily maintain a high degree of vigilance toward changing events in the world around them, while at the same time maintaining a clear focus on internal goals. This dual perspective can help organizations achieve key performance markers with greater consistency over time, while enabling leaders to more effectively anticipate externalities that might impact the attainment of those markers now or in the future.

Control What You Can Control

While all of us hope that the pandemic will be short-lived, we can be sure that this will not be the last major event likely to disrupt global society and commerce. To say that there is nothing we can do about these events is fundamentally wrong. While we cannot predict, we can prepare for what may be ahead with a focus on controlling what we can control. That is the responsibility, and opportunity, of prudent and farsighted managers in construction and all other business disciplines. And it is the essential truth of living and working in a VUCA world.

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Prior to his current role, Davis was responsible for professional and pollution liability for architects, engineers and environmental services firms for the Environmental business group, including coordination of placements for large, multinational service firms.

Before joining Zurich, he worked for Kemper Insurance, building and leading the Construction and Consulting division of Kemper Environmental. Prior to that, Davis held underwriting, product management and risk consulting roles for Environmental Compliance Services. Prior to starting his insurance career, he worked as a professional geologist, directing field services for a regional geotechnical and geologic consulting firm.

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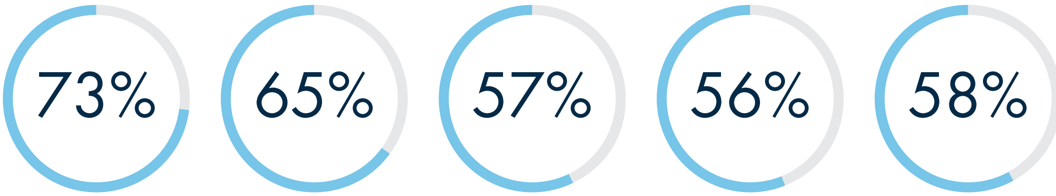

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