Digital Construction: incorporating digital technologies into the construction industry

The construction industry impacts all of our lives daily. Without it, there would be no roads, offices, hospitals, schools, and perhaps most importantly, homes. The industry represents the building blocks of our communities and, from a wider point of view, is a cornerstone of the economy.

COVID-19 will without a doubt have a major impact on the construction industry. However, it can be observed that the challenges the industry faces are more fundamental and rooted in the lack of digitalization.

Digital technologies create opportunities

Digital construction could provide an answer to these challenges. Digital construction is defined as utilizing digital technologies to construct more efficiently with higher quality. However, when looking at Information Technology (IT) investments, the construction industry has historically underinvested in technology — only 1.2 percent of its revenue is allocated to IT, compared to a 3.5 percent average across industries. We believe that digitalization presents a significant opportunity to not only deal with these challenges, but to use them to thrive.
Learning from new entrants

Digital construction is on the radar of ConTech start-ups and tech giants are presenting focused solutions around a single technology to solve a specific but isolated problem. This is very different from most incumbents’ strategies, which focus on cost-saving and improving efficiency rather than value creation.

For construction incumbents wanting to seize the opportunity, there is much to learn from these new entrants’ strategies. first, you need to be well-funded enough to have the runway to attract & retain the top talent and have learned how to use unconventional money to drive adoption. ConTech start-ups are able to do this by ‘agility’ strategies and their business models, in order to avoid adding tech and tools to legacy processes. Once an area of growth is identified the critical data elements to own very early on, this has proven vital to driving financial returns for most start-up success.

Finally, focus and speed matter. By focus, we mean concentrating efforts on as few technologies as possible, allowing you to continuously iterate and improve the proposition to fuel fast adopter, creating launch ahead of the curve.

Conclusion: a call to action for construction incumbents

To successfully seize these learning opportunities, construction incumbents should consider retooling their digital strategy to accelerate their digital goals. They will need to think big, start small and act fast.

- Immune yourself in technologies to explore the "art of the possible"
- Build your ecosystem and mobilize supply chain into "value webs" through collaboration.
- Set up a "black box" team to start-up disruption on the edge of the established organization.
- Prioritize your two or three desired initiatives to start with.
- Prove it works quickly by using an agile, iterative approach.
- Champion your successes to gain traction and achieve enterprise-wide adoption.

We believe that by incorporating digital technologies into a more focused and value-creating mindset, construction incumbents can strengthen their position and respond to the disruption caused by the new players.

Figure 3: Capital investments in construction start-ups

Figure 4: Establish a digital foundry

* Source: Pitchbook, 2019; Note: Buyout and M&A deals are not captured and technologies that are also applicable to other industries

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