In my last post I discussed rising construction costs. I referenced the recent Arcadis report where they published the results of their International Construction Costs Report 2022, within this report they have discussed the increasing costs of construction that I touched on in my last post. Here Arcadis mentioned that "Team Culture" can contribute to increased construction costs.

Arcadis state that "companies should implement an active problem solving culture and be prepared to handle uncertainties. Collaboration, aligned project objectives, and transparency are key"[1]. I felt that in and amongst a presentation containing factual analysis of cost increases that it was interesting a more subjective topic be introduced. In researching this post, I have discovered there is not much online in relation to behavioural change driving cost efficiencies in construction. I thought I would post a follow up to see if we could get some discussion going around the topic.

So, how can changing corporate culture contribute to limiting construction cost increases?

Arcadis discuss a problem-solving culture, handling uncertainties, collaboration and transparency as areas for behavioural change that can help to limit construction cost increases so I will use this as a framework for discussion.

Problem Solving Culture

Joseph Folkman is a behaviours statistician who has undertaken research into what behaviours contribute to problem solving. In his research he discussed the following 8 behaviours:

- 1. Get it done right away
- 2. Model this behaviour in those around them.

- 3. Don't work on problems alone
- 4. Know how to explain the problem and solution
- 5. Influence others around them to stretch their abilities
- 6. Quickly recognise where change is needed
- 7. Know how to focus on top priorities
- 8. Understand full context.[2]

Taking the attribute of the ability to influence others, Folkman states "problems are hard to solve and require that people do something differently than they have done in the past". The construction industry is notorious for being set in its ways. The Designing Building Wiki states in its article "Modernise or die" that the industry sticks to "habits and that this can sometimes be very dangerous. That the industry appears stuck in the very same <u>practices</u> that go on and on for decades"[3]. We have a problem, rising costs, and rising costs put the viability of building projects at risk. This is a problem that will require innovative solutions to keep projects on budget and moving forward, with teams working together. This is within an industry that is well known for its adversarial approach which can lead to ineffective team building.

Collaboration

If we "don't work on problems alone" [4] we will need to collaborate. Stonemark Construction Management discuss this noting "creative problem-solving flourishes best in an open environment where people communicate, brainstorm options and evaluate ideas and concepts" [5].

We have just discussed that the industry is resistant to change and adversarial in its approach. Fostering an open environment is not in the DNA of the industry as a whole, this has been examined by Latham and Egan. We mentioned above that behaviours persist for decades, in his PHD Thesis Nii Amponsah Ankrah stated that:

"The culture of the construction industry at the project level is often associated with such attributes as fragmentation, antagonism, mistrust, poor communication, short-term mentality, blame culture, casual approaches to recruitment, machismo, and sexism"[6]

Handle Uncertainties

The next factor Arcadis discuss is an ability to handle uncertainties. Anne Mulvenna discusses how to handle uncertainty in business. One aspect she discussed is to not "get defensive, get smart". The intrinsic attitudes discussed above, antagonism and mistrust, breed a defensive mentality, whether this be business to business or individual to individual. Whilst we have muddled through as an industry "for decades" these defensive default attitudes persist and as Mulvenna states "work when everything is fine" but "it won't work when things suddenly turn haywire"[7]. Things have just turned haywire. In my last post I discussed some unprecedented cost increases, these will pressure a client's budget or make projects unviable, these pressures also impact a contractor's cashflow or may drive them out of business. As an industry we need to work together to find creative solutions to these problems, we can do this by overcoming our inherent defensive attitudes.

Transparency

Finally, Arcadis discuss Transparency. There are studies in transparency for tendering processes and contractor selection, however this does not help us when we have a construction team together and are seeking to limit the impact of cost increases. In examining Arcadis's points I have discussed culture and collaboration which can build trust between the parties. The NEC Contract obliges the parties to "act in a spirit of mutual trust and co-operation" however we have already outlined that mistrust and adversarial behaviours are the norm in the construction industry. Nijhof, Graafland and Kuijer discuss why there may be mistrust in their article submitted to "Construction Innovation" they state:

"The builder often knows the technical possibilities and the building circumstances better than the client, and every inconsistency or omission in the specifications of the building plan is seized upon to claim additional work at a high profit rate. This also contributes to distrust in the relationship between building company and client and explains the call for more transparency"[8]

In the same article they also state that there are four essential points for transparency all of which can be driven by the client, these are:

- 1. Openness about risks,
- 2. Openness about costs,
- 3. Openness about measuring of quality-price ratios,
- 4. Openness about reasons for award or rejection. [9]

This openness about risks and costs is a feature repeated when looking at each of these headings. The problem-solving culture required "appropriate risk allocation" and this needs to apply both ways from the client and contracting organisation. A frank discussion about risk allocation and sensible contractual mechanisms to handle risk should be applied to control the rising cost of construction. Arcadis discuss this in their presentation stating "88% of contractors surveyed all agree that inappropriate risk allocation is one of the main impediments to reducing construction cost" [10].

From this brief review it can be concluded that transparency around the true cost of work, true budgets for projects, and true selection criteria for award can breed trust, a better culture and problem-solving environment. This is opposed to the historic situation where a defensive attitude persists, protecting information, not sharing information in preparation for the eventual claim.

Conclusion

I have seen some good behaviours in construction projects I have worked on. I have also seen the behaviours that have been outlined here that are preventing us as an industry from solving some of the problems that we are facing. I will take these learnings forward and seek to apply them in my working life. I would welcome opinions and thoughts from other practitioners.

[1] RICS CPD Slides, Mitigating the Risk of Cost Escalation on Construction & Infrastructure Projects in Australia, 27 July 2022, RICS Online Academy, https://ola.rics.org/course/view.php?name=MEE-AUSRCE-270722

[2] Folkman, Joseph, 8 Consistent Behaviours of Practically Perfect Problem

Solvers, https://www.forbes.com/sites/joefolkman/2021/06/07/8-consistent-behaviors-of-practically-perfect-problem-solvers/?sh=e0bbce74c16f, 7 June 2021, Access August 2022.

[3] Designing Building Wiki, Modernise or Die, https://www.designingbuildings.co.uk/wiki/Modernise or die - the need for change in construction, 24 November 2020, Access August 2022.

[4] Folkman, Joseph, 8 Consistent Behaviours of Practically Perfect Problem

Solvers, https://www.forbes.com/sites/joefolkman/2021/06/07/8-consistent-behaviors-of-practically-perfect-problem-solvers/?sh=e0bbce74c16f, 7 June 2021, Access August 2022.

[5] Stonemark Construction Management, The Vlaue of Effective Collaboration in Construction Management, https://stonemarkcm.com/blog/collaboration-communication-effective/, Access August 2022.

- [6] Ankrah, Nii Amponsah, An Investigation into the Impact of Culture on Construction Project Performance, https://core.ac.uk/download/pdf/1931942.pdf, June 2077, Access August 2022.
- [7] Mulvena, Anne, How to Deal with Uncertainty in Business, https://www.geniuserp.com/blog/how-to-deal-with-uncertainty-in-business, Accessed August 2022.
- [8] Nijhof, Graafland and Kuijer, Exploration of an Agenda for transparency in the Construction industry, https://mpra.ub.uni-muenchen.de/20274/1/MPRA paper 20274.pdf, 2009, Accessed August 2022.
- [9] Nijhof, Graafland and Kuijer, Exploration of an Agenda for transparency in the Construction industry, https://mpra.ub.uni-muenchen.de/20274/1/MPRA paper 20274.pdf, 2009, Accessed August 2022.
- [10] RICS CPD Slides, Mitigating the Risk of Cost Escalation on Construction & Infrastructure Projects in Australia, 27 July 2022, RICS Online Academy, https://ola.rics.org/course/view.php?name=MEE-AUSRCE-270722