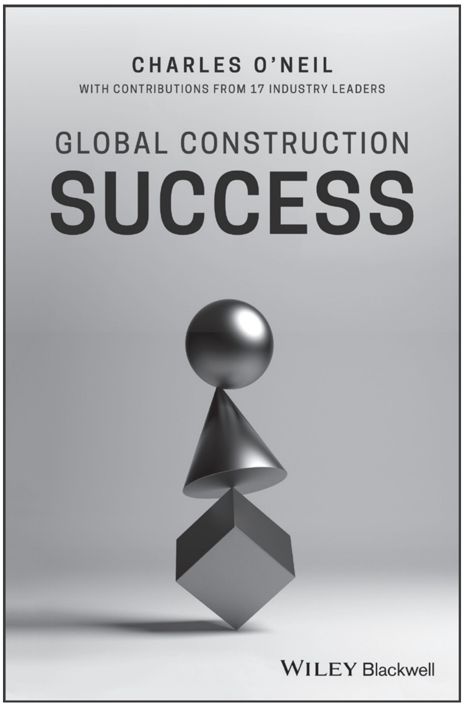
Global construction success

Construction manager and author Charles O'Neil DipArb FCIArb talks to Darrell Smart

Charles O'Neil on what he's learned about global construction success



CHARLES O'Neil has over 40 years of international experience specialising in public private partnerships, risk management and dispute resolution. He has worked in his native Australia, New Zealand, China, Vietnam, Malaysia, Singapore, Indonesia, Myanmar, Europe, Chile, Canada, South Africa, Rwanda and the UK. His latest book, *Global Construction Success*, tackles construction industry issues head-on and features contributions from 18 industry leaders. *Construction Law Review* spoke with Mr O'Neil about his career, the issues the construction world is facing and the changes that can be made for a healthier industry.

You started your working life on a cattle farm, how did you move into construction risk management?

It comes down to the time that we needed a cattle crush, when I was managing a family farm as a young man. The three that were available on the market were too expensive, so a friend and I designed our own. We built two initially, one for each of us. When we took the design to a national agricultural field day, we got a lot of interest. Within six months we'd started a small business and had 25 people building them. I realised I didn't want to be on a horse for the rest of my life, so I studied for a builder's licence, a construction supervisor certificate, and I left the land. I left farming and started my own steel fabrication and construction business.

After 18 years I sold my business and was then employed by Bilfinger and helped set up its Australian business, which eventually grew to 7,000 people with a AUD$4bn turnover before being bought by Lend Lease in 2012. In 1992, Australia was in the grip of a recession so I moved to Vietnam and set up a small construction business there. This was the start of my international career. At the end of 2000, Bilfinger offered me a permanent job in the UK to help set up its PFI business.

I was with Bilfinger in the UK for four years, then I went back to Australia before eventually moving to the head office in Germany in 2009 to become director of asset management for the global PPP business. It was then that I became interested in risk management. I was alarmed at how many projects were losing money and why. I carried out an investigation for Bilfinger looking around the world at projects, and came up with 35 common causes on why they fail.

What is the most common cause for projects to fail?

There are a number of factors, but it all comes back to senior management. The buck stops there. Senior management not getting involved enough in bidding leads to inadequate risk management. The cost estimating is inadequate. Projects go bad because they are bid for incorrectly. If the bid is under-priced and has inadequate terms of contract, then the project is headed for trouble.

You use the phrase in your book that 'people are the problem, not the process', why is that the case?

It is always people who are involved when things get into trouble. Somebody made a bad decision somewhere along the road. Management quality seems to be generally inadequate and there is

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a reason for this. There is too much specialised training early on in the industry. You have quantity surveyors and you have engineers, and that's fine, that's all good training. But they end up working in silos doing their own thing.

When I was starting out as a project manager, the training that I got was very broad. We had to understand planning, authority approvals, programming, cost estimating and cost planning. I think that young managers should understand all these different areas. It's a given that a construction manager should understand construction technologies; what QSs do; how important it is for the facilities management or services company that is going to run the end facility to come in at an early stage. But something that a lot of people don't understand properly is the difference between cost estimating and cost planning. Estimating is costing a design. Cost planning is designing to a cost. There's a very significant difference. Broader training is required, because these young people starting in industry will end up being senior managers.

Do you think that business models play a factor?

Chasing projects on razor thin margins is crazy. Inevitably there will be negative cash flow by at least halfway through the project because of retentions, then the supply chain gets forced into becoming the bankers. This is very unhealthy. Looking at what happens with larger tier one, tier two companies, if you see their debt load increasing, it is a dead giveaway. Carillion and Interserve are classic examples. There is more than just hugely incompetent management at play.

I find it difficult to accept senior managers of tier one companies celebrating a great year when they've made a 2% profit before tax. The reality is that they should be earning at least double that, as many good contractors do.

A small number of efficient builders in the UK and around the world make good margins. The problem with 1-2% profit is that a couple of bad projects puts you in the red. For example, if you lose £50m you need another £2.5bn turnover to make up that loss at 2%. It's simple maths. And thin margins do not allow enough money for training and implementing new technologies.

There is also a failure to embrace new technology amongst some of the more set-in-their-ways managers. I'm talking about building information modelling (BIM) and intelligent document formats (IDF). Blockchain is coming. Artificial intelligence is coming, drones are already widely used for site surveys on highways, railways, and even major construction sites.

How have we got such a lack of financial management and knowledge in the UK?

Financial management and liquidity control is lacking not just in the UK, but also in Australia, South East Asia and South Africa. It doesn't surprise me how many companies go broke. I don't think the bidding process is thorough enough and this compounds the thin margins. Companies don't put enough effort into planning, programming, estimating, cost planning and risk management when they're preparing bids. Traditionally, in the UK, companies sign a contract and then employ a couple of surveyors to start looking for holes in it so they can put in variation claims to try and increase their margin. I first came across this when I moved to the UK in 2001, and I was amazed that this was an accepted and totally common practice.

I'd been used to performance contracting where we gave clients a fixed price and a fixed programme – we took all the risk, and only claimed variations if clients requested them in writing in advance of doing the work. I'd worked on that basis for years on all sorts of projects. It meant that we had to be pedantic in our preparation and our bidding. Quite often we weren't the cheapest, but we would explain to clients that we had covered everything and there would be no surprises. Smart clients accept that.

In the UK right now, there are some companies that are doing well, like Morgan Sindall and Lend Lease, and I'm sure they are negotiating their contracts and keeping out of this competitive bidding process.

Where does risk management come into this?

Risk management is poorly understood, and often badly implemented. There needs to be more training in it. You can't have a contingency figure for every conceivable risk – or else you'd never win a job. With good risk management processes, there are probabilities for contingencies when you're preparing a large bid. Senior managers and directors of contractors need to learn to say no when preparing these bids. They need to learn to negotiate contracts better and keep out of this razor thin margin bidding contest that's been going on for so long.

Once the project starts, it is often poorly managed with inexperienced staff, no continuity from the bid team, poor connection with head office, poor processes, controls and reporting, especially with regard to early warning systems for risk management. The problem again goes back to the head office – senior management need to become more

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involved and understand what's going on and how to manage risk.

I have always worked on the principles of an S curve – a graph that shows time running horizontally and costs running vertically. On the S curve the success of a project will be in direct proportion to the amount of time you put into planning, estimating and programming before you start building. Project reporting is paramount. Every project should have an agreed programme and budget, and the managers must report anything that is not covered in that. Early risk management is essential. Any issue must be notified immediately, irrespective of its size or impact. Problems occur when construction site managers think they can fix an issue and keep quiet. That's a big mistake.

Are any types of projects more susceptible to risk?

PFIs, or PPPs, get a lot of criticism. I think they are a good alternative for creating building infrastructure provided they're structured properly. They do need some improvement. Governments need to take the risks that they are best equipped to manage, and they need to do their own due diligence and risk management better. Carillion left the UK government in a terrible hole with two hospital projects. That really shouldn't have happened. It was badly managed on all sides; the government, the NHS and Carillion. Probably more than 95% of PPPs or PFIs are successful and the whole purpose of them – apart from alternative financing – is to transfer risk from the government sector to the private sector in three ways; i) getting a fixed capital cost, ii) getting a fixed programme, and iii) getting a high level of servicing for the life of the project. If done properly, they're very good, but they attract negative press and are quite often misunderstood.

What are the changes in culture needed to move industry forwards?

It comes down to better and broader training – right across the board. It's about better management capability. The business model needs changing, particularly in the UK. Competitive bidding and chasing revenue is destructive.

How important is human behaviour in construction?

It's absolutely vital. The single, most important word is communication. Wherever there's a problem you can invariably trace it back to a breakdown in communication somewhere.

Human behaviour is a strange thing. People do all sorts of things for the wrong reasons from time to time. You have really good corporate leaders and construction managers because of the way they operate personally. Then you have the really bad ones – the sledgehammer managers, the yellers and screamers, and bullies – who are hopeless. That's human behaviour at its worst. Without good human behaviour, nothing will ever be achieved.

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