Editorial

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The construction industry and the global economy are facing an unprecedented time with the onset of Covid-19, the pandemic of the century. The chaos and catastrophe it creates are not only affecting single or few sectors of the economy but all sectors without exception. The United Nations trade and development agency (UNCTAD) estimates that the economic impact alone will exceed US\$1 trillion in 2020 with the global economy slowing down by 2% (WEF, 2020). The human and social cost of the pandemic no doubt will have implications that go down several years into the post-pandemic recovery period. The social and economic impact of the pandemic is making the global financial crisis experienced in the last decade a minnow.

Governments right across the globe are constantly evaluating the situation trying to strike a balance between social, health and economic priorities of their nation. The changes in lifestyle imposed by the pandemic and the measures such as working restrictions, social distancing and transport restrictions are changing the work patterns in the construction industry itself. Already in some states of Australia, construction has become 24/7 to allow for sequencing of different trades working at a given time on site, making social distancing practicably possible in the workplace. There is a total lockdown in countries that are in a more advanced state of the pandemic with no construction activities at all.

According to experts, this is a pandemic that will be there for a longer period and economies will need to find ways to cope within parameters and restrictions to be more functional and productive. A total loss of production will create a social catastrophe and an economic collapse that will bring about long-term anarchy to society. It is therefore important to find ways to function effectively within restrictions but to achieve economic progress in a more sustainable way. Yet again, construction is seen as an industry that will help boost economic activities vital to sustaining economic growth and employment. The Australian (and New South Wales) governments are pushing the new infrastructure projects pipeline to boost construction. Undoubtedly, this will help attract new talent to the construction industry from the massive redundancies that have happened right across the economy due to Covid-19 restrictions imposed.

The negative circular impact of the pandemic needs to be countered with positive measures such as those boosting economic activities. Retraining workers will require universities and other tertiary institutions taking a lead in developing short programs and micro-credentialing so as to develop the workforce needed for the construction industry. Universities and almost the whole education sector have now moved to an online presence, positively responding to restrictions required for the safe progress of society within the pandemic. The Australian government has already announced support for the education sector to develop such programs. This is a progressive and far-sighted approach in dealing with the crisis and thinking beyond.

Pre-pandemic, there was great concern on the impact of the fourth industrial revolution on the construction industry. If anything, the pandemic has made society rely even more on technology. The construction industry is no exception here. Procurement in construction will move into greater digitalisation. The technologies such as blockchain and smart contracts attributed to the fourth industrial revolution, as identified by the Institution of Civil Engineers report into *Blockchain Technology in the Construction Industry* (ICE, 2018), will be the future of procurement. Smart contracts will replace most of traditional paper-based contracts but will maintain the fundamentals of principles of contracts (Perera *et al.*, 2020). Issues of trust and transparency highlighted in the February 2020 issue of *Management, Procurement and Law* (Leung and Kwok, 2020; Xu, 2020) will be addressed through successful implementation of blockchain promoting a single source of truth.

The shift to the online environment will be more pervasive with it becoming the norm for future of managing projects, where digital collaboration will help improve managing the uncertainty of the project. In the first paper of this issue, Laryea and Watermeyer (2020) present a South African case study exemplifying the approach used to manage uncertainty in a fast-track project where 26% of the scope of the project was not well defined. They identify setting a rigorous control budget, designing to the budget, working collaboratively, disciplined management of the budget and continuous value engineering as the primary client management techniques utilised. The collaborative project leadership provided

by the client has been the overarching success factor for this multi-university development project.

One of the biggest social issues that may result from the coronavirus pandemic is the possibility of mental health issues that it may cause to workers and society in general. These could arise from social isolation, distancing, redundancy and allied issues. The paper by Campbell and Gunning (2020) is timely, as it explores strategies for mental health and well-being of construction workers. Mental health issues are a universal problem in the construction industry. In most countries, construction workers are found to be more prone to mental health issues and suicides than other sectors. Campbell and Gunning (2020) report on a mixed-method study involving a survey of 126 construction workers and interviews incorporating construction and medical professionals. They identified that most major mental health problems are difficult to combat because of the associated stigma. They recommend group activities, self-help programmes and guides, volunteering, health screenings and site-specific briefings with suitable visual aids as solutions for improving mental health conditions of the construction workforce.

The third paper in this issue, by Mulholland *et al.* (2020), evaluates a single megaproject to identify the social value characteristics in managing stakeholder dynamics. One thing that has come to light through this biggest crisis of our lifetime is the need for societal collaboration in responding to a mega crisis. This megaproject provides a mini case study, which involves all the stakeholders that could be impacted by a nuclear decommissioning project, from the immediate client and contractors to the wider society. The authors identify the importance of taking a pluralistic and processual view on stakeholders and a greater degree of attention to fragmentation and integration of stakeholder interest changing over time. It can very well be argued that this clearly applies to the pandemic situation that society is currently experiencing.

This issue explores the dynamics of large-scale construction projects which resonate well with the pandemic-related crises faced by the construction industry worldwide. This editorial tries to highlight the relevance of what we learn through research carried out for providing solutions and seeing the way forward.

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