

*Covid-19 Associated Risks and Mitigation Strategies
relevant for the UK Construction Industry*

Nimi Dan-Jumbo, University of Westminster

1.1 Introduction

The sudden emergence of the novel coronavirus (SARS-CoV-2) known as COVID-19 has had not only significant epidemiological effect on global population (WHO, 2020), but an adverse ripple effect is being felt by key economic sectors globally, especially in the UK (Al Amri & Marey-Perez, 2020; Jallow et al, 2020). Currently, as over 1.6M have died (65,520 in the UK) and figures continue to rise (Worldometer, 2020), the UK government and others around the world are taking dramatic steps to slow the spread of the virus to save lives. However, the measures taken are also having massive implications for economic activity (Allas et al, 2020; Scally et al, 2020). For example, because of widespread falls in services, production and construction output, the UK GDP experienced the biggest monthly fall (20.4%) since 2007 in April of 2020, The UK's construction industry presently the second largest industry contributing 7% of GDP (HoC, 2020) is currently under stress due to the pandemic (ARUP, 2020; Jallow et al, 2020; Jones et al, 2020). The purpose of this study is to identify the Covid-19 risk associated with the construction industry, and ways to mitigate the risk. The main body of this study covers the associated risks, performance of the industry, exiting and finally proposed mitigation measures.

2.1 Discussion

2.1.1 Covid-19 Risks associated with the construction Industry

Generally, the sources of risk associated with the UK construction result from three major factors which are Recession, Lockdown and Social distance policy as shown in Table 1. First, the UK lockdown which strictly commenced on 23rd March (in England) is major source of threat and is affecting construction industry on many levels (ARUP, 2020; Jallow et al, 2020), whether housing, non-housing, or repairs/maintenance. The risk posed mainly relate to labour shortages, economic impacts, contractual problems (ARUP, 2020; Jallow et al, 2020; Scally et al, 2020). On labour shortages for example, reports from industry leaders such as (ARUP, 2020) report shortage of employees due to the lockdown, furlough scheme current workforce being infected and job losses. For instance a study by Allas et al (2020) show the construction industry is among disproportionately affected industries with about 40% at risk of job loss, which imply reduced labour that has implications for productivity and output and eventually project delay. The industry has to device innovative means of lessoning the impact.

Next, in terms of economic problems, lockdowns are already having severe impact on cashflow, funding and as well as project cost. According to Al Amri & Marey-Perez (2020). In fact, there was a degree of confusion among builders and merchants on whether to remain in business (Allas et al, 2020; ARUP, 2020). Data from the Office of National Statistics reveal 23% businesses between 6th -19th April 2020 temporarily closed or paused trading, and around 60% of those who traded recorded fall in revenues (Allas et al, 2020). This could have a knock-on-effect on the supply chain and the ability of clients and contractors to make payments. After that, the high risk of increased project cost is another significant issue, which could be due delayed projects, cost of hired equipment on site(Al Amri & Marey-Perez, 2020; Gamil & Alhagar, 2020). The lockdown also presents the possibility is to trigger force-majeure provisions in the contracts. The UK construction industry already has a history fraught with disputes (Chappell, 2014; El-Adaway et al, 2017; Kennedy, 2008) which can result from contractual issues such as late payments, material breach of contract, repudiation, delay damages, risk allocation etc.

On contractual problems, both parties may expect notices and instructions to close site.

Delayed projects are also highly likely due to site closures and reduced staff resulting from the furlough scheme. Creative solutions are needed to ameliorate the short term and long-term effects.

Second, the current coronavirus crisis trigged an unprecedented economic recession has and is having significant implication for UK's public and private finance (Lea, 2020; Lilly et al, 2020). Lea (2020) argue this recession could be worse than the last post-war recessions

due to GDP fall (Figure 2) and job losses. In the UK construction industry, the ripple effects include negative impact on productivity and output, increased likelihood of insolvency and repudiation, increased rate of job losses (as shown in Figure 1) and changes in the risk appetite of insurers (ARUP, 2020; Jones et al, 2020). Reports show productivity in the industry dropped by about 30% (CIOB, 2016) from poorly performing pre-COVID-19 (CIOB, 2016) levels haven been influenced by material shortages and fewer workers has consequences on the project completion variable.

The UK construction industry already has a well-known problem of insolvency (Lowe, 1997; Proverbs et al, 2000), especially during recession and this coronavirus-induced recession may not be the exception where clients and contractors are unable to pay their bills due to cash flow issues. This may result in increased repudiation and termination of contracts. Again, there could be further impact on the appetite of insurers to cover for claims because of the scale of the economic impact.

Thirdly, on COVID-19 related risk, the social distancing measures prescribed by UK governments for the control of the spread of the virus is likely to have has significant implication for the industry. The risk includes considerable changes in working procedure, access restrictions on site as well as health and safety issues in terms of spread of the virus on risk and risk to workers mental health(AI Amri & Marey-Perez, 2020; Jallow et al, 2020; Scally et al, 2020). Revised procedure of working on site mean fewer workers on site resulting in reduced productivity and delayed projects. Reduced manpower may also result to poor performance in term of quality.

Studies reveal the transmissivity of COVID-19 is very high (Hu et al, 2020). On the other hand, the risk of mental health of workers due to the lockdown, self-isolation, risk of job loss, and general uncertainty cannot be underestimated in the UK construction industry. Compared to overall national average, suicide in the UK and Australia were found 3 time higher and anxiety was the prevalent risk factor (Chan et al, 2020). Therefore, the new working procedures should be better explained to workers and be put in place to protect the health of operatives.

2.1.2 Measures taken by the UK and Scottish Government

To mitigate level of risk to public health and the economy resulting from the pandemic, a range of actions have been by the UK government and government agencies with the aim to “flatten the curve” and “save businesses”(Anand, 2020; Hale et al, 2020; Nicola et al, 2020; Scally et al, 2020). With respect to the health and safety in construction industry, the four UK devolved governments at some point implemented a strategy of nationwide or partial

lockdown, encouraged social distancing, self-isolation for infected and traveling population, contact tracing, encouraged minimal use of public transport. There is a consensus that the UK Government's public health response came in too late (Anderson et al, 2020; Scally et al, 2020). Although, the public health response could mitigate health and safety risks on site, these measures might likely cause low productivity, more job losses, less investment, and consumption. On mitigating economic and financial risks, a range of measures were also put in place keep businesses afloat and sustain jobs (Anand, 2020).

The National Audit Office (NAO) provided overview of government's wide-ranging response to COVID-19. By May, out of a total of £124.3 billion set out in response to the pandemic, £82.2 billion was used to support business, save jobs, as well as loans, and grants (NAO, 2020). By September, the total amount surged to a total of 194.3 billion, while 139.5 billion was committed to insulate businesses and households. This means support for business was prioritised however, the output of construction industry still fell in October after the Government's intervention was withdrawn. Therefore, output shows some correlation with financial intervention.

2.1.3 Proposed strategy for mitigating associated Covid-19 risks

First to reduce health and safety risks, the industry leaders such as RIBA, CIOB, RICS need to compliment the efforts of the Government by developing industry specific standard working procedures relevant for the industry in collaboration in nexus with the Health and Safety Executive (HSE). This will help mitigate industry-specific risks associated with construction.

Second, on insulating the industry economic risks from cycles of lockdown restrictions, it is clear there have been wide ranging interventions for businesses, but it has not led to sustained output and productivity. First offsite construction is recommended to solve issues of labour shortages, low productivity, and social distancing. Better communication channels and training should be established to provide clear updates on latest interventions and to educate businesses about scenarios and latest interventions available. To boost productivity, more detailed and better task planning is recommended for example, less overlap of trades on site at the same time will mean fewer people and more gang tasking can help improve work productivity. Also develop a second shift schedule to improve efficiency. Lastly, Notices should serve in time to prevent disputes between employers and contractors.

3.1 Conclusion

The novel coronavirus pandemic has had a significant impact on the UK construction industry. The main sources of risk are the lockdown, economic recession, and social distancing policy. Risks identified relate to labour shortages, financial impact, contractual problems, force majeure, security, contract delay, industry output, insolvency, job losses, insurance, working procedure, access restriction and health and safety. As result the performance of the industry is below pre-COVID levels. Output shows correlation with lockdown. Although public health and economic measures have been put in place, developing industry-specific working procedure is recommended. Offsite construction and better task planning will boost productivity. Notices should be serving early to prevent breach of contract.