

Affect of Covid-19 on The Construction Industry and Tackling the Impacts of Covid-19 on the Construction Project

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ABSTRACT

COVID-19 pandemic has become a worldwide health concern that is impacting every aspect of everyone's life. The COVID-19 pandemic is having a significant impact on the economically sensitive construction industry. On the positive side, however, the construction sector has a lot of potentials to boost the recovery thanks to its job creation potential; and in return, remedial measures can support the transformation of the sector towards sustainability and digitization. Tripartite cooperation and social dialogue, along with international labour standards, are key to promoting a people-centred recovery in the construction sector from the crisis.

This article explores the measures that construction businesses measure put in place to mitigate the risks of a legal proceeding related to potential contract terms due to COVID-19. Further, this study provides a chance about the measures adopted by construction companies in avoiding written agreement disputes precipitated by the Covid-19 pandemic. In addition to that, it can aid the businesses in minimizing risks and scaling back defrayment and uncertainties so as to focus attention on maintaining existing written agreement relationships to secure future businesses.

The suggestions made could be used by construction businesses to enhance the strategy used to stop COVID-19 from spreading on-site. This article could also provide policymakers with information on COVID-19 measures that are not being properly implemented on the ground and need further scrutiny. Research on health and safety precautions for building sites during this COVID-19 season is still being developed. Consequently, this work advances the body of knowledge in this field of study.

Keywords : COVID-19, Pandemics, Construction Industry, Impact

I. INTRODUCTION

The activities of the construction sector include the construction, renovation, maintenance, and demolition of buildings (residential and non-

residential), as well as work on civil engineering projects such as highways and utility systems. A variety of sectors are involved, including architecture and design, manufacturing of equipment and materials, transportation, and energy and waste management. Value is created by converting

feedstocks into essential capital assets for both economic activity and the provision of infrastructure services.



Consequently, the activity of the sector can have a significant impact on income generation and poverty reduction. Its significant potential for job creation stems from its labour-intensive nature and strong links with other sectors of the economy. While the construction industry can provide employment for many people, it often lacks job security and working conditions vary widely around the world. Efforts to stimulate growth and productivity in the sector are important to promote decent work and more sustainable construction practices.

The coronavirus (Covid-19) irruption has created a world health crisis that has discontinued all industries and the development trade. Following the onset of the pandemic, construction sector employees two-faced and still face unprecedented safety and health challenges all over the world. Therefore, construction employers established new safety precautions to safeguard the health and safety of the force and minimize the unfolding of the virus.

With construction comes resuming operations after the impact of Covid-19 spread, it becomes vital to research the coronavirus-related health and safety issues of the construction force and perceive how the new safety procedures will assist on job sites. Existing studies principally centred on interviews and surveys with construction firms to grasp the impact on project performance and provide supply chain industry. The

findings of this study offer insights into the security and health trends on construction sites, lay the inspiration for future work of academicians and practitioners to handle the issues two-faced by construction employees, and function lessons learned for the trade within the case of any future pandemic.



Members of the construction industry, including owners, developers, contractors, subcontractors and supply chain providers, have experienced varying levels of impact as a result of the COVID-19 pandemic. The nature of the impact and the magnitude of the impact is highly dependent on the location of each underlying business and project. The direct impacts range from slowing the availability of goods and labour to suspensions and, in some cases, the termination of parts or entire projects. Construction activity continues to change in some states and cities based on whether construction is classified as an essential business.

As a result, the COVID-19 crisis has created a need for industry members to address both short-term and long-term business challenges and formulate solutions on a project-by-project basis in the face of a new global and business environment. national environment. The full breadth and scope of the changes needed to address the issues arising from the pandemic are still unknown, and this analysis is likely to evolve until a vaccine or another cure is rolled out globally.

Gamil and Alhagar (2020) accumulated data from a survey performed on 129 respondents and a sequence of based interviews with 10 specialists to recognize the effect of COVID-19 on the construction industry. According to respondents, the maximum intense effects of the pandemic are:

- (1) Hold the project works and tasks because of construction supply shortage and restricted movements
- (2) Personal Threat and labourers shortage because of suspension of tasks and to avoid the spreading of the virus in gatherings,
- (3) time overrun that is related to the movement and degree manipulation period, and
- (4) cost value overrun and economic effect resulting from the financial deterioration, projects suspension, and ongoing overhead charges to hold organizations running (Gamil and Alhagar, 2020).

Other impacts embrace provide shortage, material value fluctuations, legal problems and interruptions in written agreement terms, impact on existing accomplished activities, the uncertainty of survival, and impact on analysis and technology (Gamil and Alhagar, 2020).

II. Impacts of the COVID-19 Pandemic on the Construction Industry Worldwide

It is being identified that large-scale business and multi-national enterprises are largely influenced due to the turmoil of Covid-19. The government's decision towards the imposition of lockdown creates relative hazards for ongoing business functioning (Glaeser et al.,2021). In this regard, the operational activities of businesses were impacted, which further influenced the business growth ratio and profitability margin. The real estate businesses and construction industry are impacted as infrastructure development is a necessary factor in order to enhance the economy.



It can be seen that downfall within the construction businesses brings with it financial recession as large household incomes are dependent on the infrastructural sector. The decrease in construction projects brings unemployment as a majority of labours who were solely dependent on the real estate sector lost their jobs significantly. The ratio of downfall within the construction industry is not limited to specific nations or regions, but it is expanded globally (Lamb et al.,2021). The current study will provide an overview of how construction businesses are impacted and how enterprises survive due to the turmoil of Covid-19.

It can be seen that the arrival of Covid-19 brings within it a layer of destruction to each business sector. In the same manner, construction businesses face severe losses due to the closure of the operational activities as countries' GDP growth is dependent on real estate and infrastructure development (Shafi et al.,2020). The ratio of unemployment increased to a larger extent as skilled labour working on construction sites lost their jobs due to the complete lockdown situation imposed by the government globally within 2020. Moreover, the ratio of construction workers within each country was enormous, due to which unemployment increased to the maximum level.

The impact of unemployment influences the GDP growth ratio as economic survival becomes a potential challenge (Rasul et al.,2021). In this regard, mitigation strategies were required by the government in order to overcome the economic disaster. However, the health and safety of employees are a necessary

element which needs was being considered by the government and management within the construction sector. It is being identified that survival for the real estate business becomes a major challenge as employee safety policies need to be considered by strategic management in order to ensure health and safety measures for the associated employees and labour force.



Moreover, the labourers and workforce avoided visiting construction sites in order to maintain their well-being as the household income for the construction workers is dependent on real estate businesses. Therefore unemployment impacted the ratio of daily wages effectively. However, government regulatory policies hinder construction managers from performing in accordance with designed strategic objectives (Taofeeq et al.,2022). In order to achieve the designed productivity ratio and profitability, margin requires maximum labour force in order to enhance the ratio of construction projects. In the same manner, the feasibility of completing designed construction projects was delayed to a larger

extent due to which business growth was largely impacted.

It can be seen that each department within the construction industry is influenced majorly due to the delay in the operational procedure as well as the shortage of labour. In this regard, mitigation strategies were adopted by the construction management in order to initiate construction activities within the post-pandemic time frame. The construction businesses tried to maintain certain health care guidelines provided by World Health Organization (WHO) in order to ensure health and safety for construction workers as well as management employees (Stiles et al., 2021). It can be seen that in order to survive within the Covid-19 situation, the labour force tries to adopt provided standards of procedure in order to ensure their well-being. The alternative business functioning involves around mitigating strategies in order to overcome Covid-19 influence.

In this regard, maintaining social distance is being implemented within the health structure policy framework in order to provide a secure environment for associated employees. Although the construction functioning consists of working collectively within teams but in order to fulfil standards of procedure, it is necessary to provide relative instructions to the workforce, which enables towards enhancing their well-being (Zou et al.,2020). The strategic decision towards innovation within current working policies is being adopted in order to ensure health measures at the workplace.

In order to ensure safety principles, the adoption of wearing masks and gloves and using sanitiser becomes mandatory for the labour working at construction sites. Although physical security towards the employees is necessary as providing safety equipment, i.e. safety shoes and a helmet, is necessary, within pandemics, the major concern is towards providing safety precautions for employees in order to protect them from Coronavirus (Baker et al.,2020). In the

same manner, medical facilities are being provided for employees who work within construction sites in order to overcome the emergency situation, as the health and well-being of employees is a significant factor which needs to be considered in order to enhance efficiency within the working process. Moreover, remote working is being provided for employees who are unable to work physically within construction sites.



The employees who are not directly involved in construction functioning are provided with the opportunity to work from their homes. It can be seen that post-pandemic situations involve relative challenges to construction management in order to counter the Covid-19 situation (Ayat et al.,2021). However, certain measures and mitigation strategies were adopted in order to overcome the Covid-19 situation. In this regard, the real estate business and construction industry combined perform in order to tackle the hazards faced within pandemics in order to enhance productivity ratio and profitability margin.

III. CONCLUSION

From the above analysis, it can be concluded that Covid-19 creates a significant challenge for construction businesses and the real estate industry as

a major downfall within the operational activities increases the ratio of loss. The imposition of lockdown brings financial destruction to the sector. The restriction by the government towards working principles reduced working efficiency as the majority of the employees were unable to visit construction sites. The ratio of unemployment increased to a larger extent due to which influence towards GDP growth, and economic downfall is being observed largely. However, relative intervention by government and construction management in order to overcome the Covid-19 downfall enables bringing productivity within the construction functioning. In this regard, relative standards of procedure were adopted by construction companies in order to overcome the turmoil of Covid-19 and in order to maintain the health and well-being of employees. In this regard, health care policies provided by World Health Organization (WHO) were adopted in order to enhance working principles and internal workplace procedures by providing a secure environment for construction workers.

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