

**SUBSEQUENT CONSTRUCTION SECTOR AND POST COVID-19 MITIGATION PRACTICES****Nitesh.V.Gopnarayan<sup>\*1</sup>****Dr.Manish M.Bais<sup>2</sup>**

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**Abstract**

The construction industry is an essential tributary of the global economy and an important resource in the overall product of the local economies. The COVID-19 pandemic has been the largest global health crisis in decades during these pandemic construction industries was exposed to a shock beyond the local level as a result of COVID-19. The nature of the effects of COVID-19 on the construction industry varied according to the diversity of its projects. The pandemic raised many challenges at the level of the workforce, low or halting productivity, production time and costs, as well as disputes in contractual formulas for construction projects. This paper mainly focused on prominent impacts of COVID 19 in the suspension of projects, impact on a labor productivity, time overrun, cost overrun. Also describes the global impact of the Corona virus on the construction industry and explain how it is possible to continue construction work in this situation like pandemic by preparing roadmap for tackling such kind of problems if comes in the future then construction work will continue then economic downturn and unemployment will be reduced.

**Keywords:**

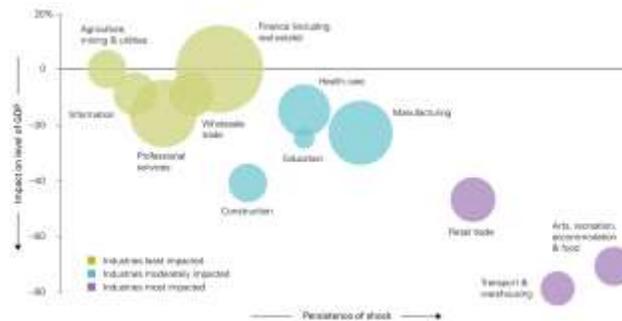
Covid-19, pandemic, global, unemployment

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**INTRODUCTION**

As with most parts of the world, India is also trying to respond the challenges of the post COVID-19 reality, which has come to define a new normal for our economy and the society at large infrastructure and construction sectors which are primarily responsible for India's growth story which already facing the headwinds from the COVID-19 pandemic and cannot expect to be insulated from its damaging impact. Further, the unorganized and fragmented nature of the construction sector is likely to exacerbate this effect Construction and engineering projects around the world are being impacted by the COVID-19 pandemic in numerous ways, and many projects have stopped.

During these pandemic construction industries mainly face difficulties with supply chain disruptions, claims, and labor shortages due to city-wide shutdown worldwide. As workers become infected, quarantined and sick, labor shortages could arise and this may cause delay and affects active construction projects. It is observed from the current situation that the pandemic is affecting the performance of construction projects in many countries worldwide. So, this study aimed to analyze the impact of COVID-19 on global construction industry performance, even though the case of the pandemic is currently less in developing countries. The study gives more explanation on various issues and effects arises during pandemic and their economic impact and also present a roadmap to tackle such kind of conditions if comes in future



### AIM AND OBJECTIVES

- **Aim**-This research aims to investigate the effect of COVID 19 on the construction industry's survival. The impacts and fallout have been analyzed and further solution to overcome such kind of global crisis if comes in future.
- **Objectives of study** –  
Four most important objective may be classified are as follows :
  - To identify the Effect of this pandemic crisis on to the construction sector and how majorly it affected the existing construction industry (**Recognizing the issue and effects**)
  - Assessment of economic impact onto the construction industry by using various kind of data and researches (**Analyzing the after effects using data and surveys thoroughly**)
    - To present the best tackling or coping strategies to overcome these effects and reduce the current damages that is resulting from it to the construction industry. (**Further resolving and confronting such disruptions in the future**)
  - Implementing the roadmap for withstanding firmly if such kind of pandemic comes near in the future and measures underline the need to improve systems and processes for adequately responding to the current changing environment

### LITERATURE REVIEW

since the covid pandemic hits over lives authors have been constantly studying and exploring the effects of COVID-19 on the built asset procurement and potential opportunities for the construction industry through a quantitative means Ihsan Ali Husien et.al presented COVID-19 Key global impacts on the construction industry and proposed coping strategies The pandemic raised many challenges at the level of the workforce, low or halting productivity, production time and costs, as well as disputes in contractual formulas for construction projects. But some of the effects were more severe and caused consequences for all stakeholders in the construction sector. The researchers concluded that main problem that faces construction industry during pandemic related to the workforce, disruption of supply chains and legal disputes Researchers believe that the Corona pandemic may be an opportunity to change traditional policies in management.S H Zamani et.al have analyzed the Effect of COVID-19 on building construction projects Impact and response mechanisms The main objective to identify problems caused by COVID-19 in the building construction industry and mechanisms to reduce COVID-19's negative impact. These findings will help policymakers improve existing strategic plans and create new policies to cope with the circumstances caused by COVID-19 among building construction organizations.Dr. Yaser Gamil Abdulsalam Alhagar et.al observed The Impact of Pandemic Crisis on the Survival of Construction Industry,the impact of COVID-19 have been classified into different groups which include economic, human resources. The findings of this study shed light on the consequences of the sudden occurrence of pandemic and raise awareness of the most critical impacts which can't be overlooked. Muhammad Ayat et.al studied about Effects of the COVID-19 pandemic on the construction sector.the main purpose of this research is to explore and provide insights into the impact and changes that have occurred in the construction sector due to COVID-19 and to present a mitigation framework to minimize the effects of pandemic in construction sector .Ankan Biswas et.al studied about observation was made in

several countries and describes the global impact of the Corona virus on the construction industry. This study also explains how it is possible to continue construction work in this situation.

#### METHODOLOGY

This research aims to explore the impact of COVID-19 pandemic in the construction industry. This was achieved by literature survey with the fact that COVID-19 is a pandemic and there was limited literature to evaluate for generating information. To overcome this fact exploratory interview shall be conducted for collection of primary data from construction professionals in Architecture, Building Engineering, Civil/Structural Engineering, Construction/Project Management and Quantity Surveying in the building industry. After collecting responses from the experts and data collected from literature review will be analyzed. Then collected data will transformed into meaningful sets of findings and all categories emerge into a complete analysis. After that the major impact & their effect cause due to COVID-19 pandemic will categorized then best tackling strategy to overcome this impact will be suggested.

#### CONCLUSION

It is evident that the world is diving more and more digitally, hence professionals are expected to embrace innovative technology to improve productivity. The need for more preparation towards the threat and opportunity posed by risk is essential. This study discovered that COVID-19 significantly affected the procurement of the built asset and construction industry at large, and this is as a result of the full and partial stoppage of works majority decided by the authorities. The impact of the stoppage has quite outweighed the lessons learnt during the lockdown imposed in various countries. The experience of COVID-19 in the construction industry is not yet over as the learning curve has not completed the circle. In the end, if these experiences are harmonised, a comprehensive turnaround strategy for contingency plan would be produced. The study sharpens a way to a comprehensive development of such strategy to ripe diverse experiences in global challenges.

#### REFERENCES

- [1] Selman Aslan a, Osman Hürol Türkakın b (2021) "A construction project scheduling methodology considering COVID-19 pandemic measures"- Journal of Safety Research
- [2] Eugene Chian Yan Tao, Yang Miang Goh, Jing Tian "Management of Safe Distancing on Construction Sites During COVID-19: A Smart Real-time Monitoring System"- Computers & Industrial Engineering science Direct
- [3] Shereen Mohamed Elnaggar a, Hosam Elhegazy b "Study the impact of the COVID-19 pandemic on the construction industry in Egypt"- Structures- Science Direct
- [4] Ihsan Ali Husien1., Zelentsov Borisovich2 and Ahmed Adel Naji "COVID-19: Key global impacts on the construction industry and proposed coping strategies"- E3S Web of Conferences 263
- [5] S H Zamani1, R A Rahman2 ,M A Fauzi3 and L M Yusuf "Effect of COVID-19 on building construction projects: Impact and response mechanisms"- IOP Conf. Series: Earth and Environmental Science,4th National Conference on Wind & Earthquake Engineering
- [6] Apurva Pamidimukkala, Sharareh Kermanshachi "Impact of Covid-19 on field and office workforce in construction industry"- Project Leadership and Society - Science Direct
- [7] Abdul Lateef Olanrewaju AbdulRashid AbdulAziz, Christopher Nigel Preece Kafayat Shobowale "Evaluation of measures to prevent the spread of COVID-19 on the construction sites "- Cleaner Engineering and Technology - Science Direct-
- [8] Felipe Araya "Modeling the spread of COVID-19 on construction workers: An agent-based approach"- safety Science - Science Direct
- [9] Wee Hoe Gan , David Koh "COVID-19 and Return-To-Work for the Construction Sector: Lessons From Singapore"- Safety and Health at Work - Science Direct
- [10] Abdullah Alsharif 1,2,\* , Siddharth Banerjee 1 , S M Jamil Uddin 1 , Alex Albert 1 and Edward Jaselskis. "Early Impacts of the COVID-19 Pandemic on the United States Construction Industry"- Int. J. Environ. Res. Public Health

- [11] Ogunnusi Gunnusi , M.Hamma-Adama, M., Salman, H. and Kouider, “COVID-19 pandemic: the effects and prospects in the construction industry”- International Journal of Real Estate Studies 1
- [12] M. Mofijur,I.M. Rizwanul Fattaha ,Md Asraful Alamb, A.B.M. Saiful Islamc Hwai Chyuan Onga, S.M. Ashrafur Rahmand, G. Najafie, S.F. Ahmedf, Md. Alhaz Udding,T.M.I. Mahliaa- “Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic”- Sustainable Production and Consumption
- [13] Andualem E Yadeta1\* and Digvijay Pandey “Analysis of the Global Impact of the Pandemic (COVID-19) on Construction Industry: Possible Scenarios”- Current Trends in Civil & Structural Engineering .
- [14] Dr. Yaser Gamil ,Abdulsalam Alhagar “The Impact of Pandemic Crisis on the Survival of Construction Industry: A Case of COVID-19”- Mediterranean Journal of Social Sciences
- [15] Ankan Biswas1 , Abhinandan Ghosh2 , Adrish Kar3 , Tuhin Mondal4 , Buntée Ghosh5 and Dr.Prasanta Kumar Bardhan6 “The impact of COVID-19 in the construction sector and its remedial measures”- Journal of Physics: Conference Series
- [16] Indranil Chakraborty , Prasenjit Maity b, “COVID-19 outbreak: Migration, effects on society, global environment and prevention”- Science of the Total Environment- Science Direct.