

PREPARING THE ALGERIAN CONSTRUCTION INDUSTRY FOR THE POST-
COVID-19 REALITY

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DEDICATION

This master project report is dedicated to my father, who invested, supported, and believed in me. It is also dedicated to my mother, who was always by my side, she is the source of my strength.

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ABSTRACT

The COVID-19 pandemic has brought many challenges to the construction industry. The combination of an economic downturn and lockdown regulation has severely impacted the construction performance in Algeria. This paper aims to elaborate a list of proactive steps that can help local organisations to respond effectively to the crisis and thrive in the next reality. The main objectives of the study are: identifying the impacts and challenges caused by the COVID-19 on the industry, and find out what solutions have been implemented by organisations to mitigate the health crisis. To get a more realistic view of the situation, a qualitative approach has been adopted. Five semi-structured interviews were conducted to collect the required data. The findings of the research suggest that the construction industry in Algeria has been significantly affected, from financial pressures to operational output limitations. Working under new HSE regulations, a reduced workforce, workers and materials availability, communication, and collaboration have been the main challenges faced by organizations. To adhere to the new conditions, organizations implemented many changes such as the use of digital tools for communication, more detailed planning for operations and procurement, site reconfigurations, and implementing new HSE regulations. Furthermore, seven steps were suggested to help leaders to manage the crisis and reimagine and thrive in the post-COVID-19 reality. This study is limited to local construction companies operating in the housing sector. Furthermore, the outcomes of this research provide a rich insight into the industry's situation in Algeria and can be useful for leaders to survive the crisis.

ABSTRAK

Pandemik COVID-19 telah membawa banyak cabaran kepada industri pembinaan. Gabungan peraturan kemerosotan ekonomi dan penguncian telah mempengaruhi prestasi pembinaan di Algeria. Makalah ini bertujuan untuk menyusun senarai langkah-langkah proaktif yang dapat membantu organisasi tempatan untuk bertindak balas dengan berkesan terhadap krisis dan berkembang dalam kenyataan seterusnya. Objektif utama kajian ini adalah: mengenal pasti impak dan cabaran yang disebabkan oleh COVID-19 terhadap industri, dan mencari jalan penyelesaian apa yang telah dilaksanakan oleh organisasi untuk mengurangkan krisis kesihatan. Untuk mendapatkan gambaran keadaan yang lebih realistik, pendekatan kualitatif telah digunakan. Lima temu ramah separa berstruktur dilakukan untuk mengumpulkan data yang diperlukan. Hasil kajian menunjukkan bahawa industri pembinaan di Algeria telah terjejas dengan ketara, dari tekanan kewangan hingga keterbatasan output operasi. Bekerja di bawah peraturan HSE baru, ketersediaan tenaga kerja, pekerja dan bahan yang berkurang, komunikasi, dan kolaborasi telah menjadi cabaran utama yang dihadapi oleh organisasi. Untuk mematuhi syarat-syarat baru, organisasi menerapkan banyak perubahan seperti penggunaan alat digital untuk komunikasi, perancangan yang lebih terperinci untuk operasi dan perolehan, konfigurasi ulang situs, dan menerapkan peraturan HSE baru. Selanjutnya, tujuh langkah dicadangkan untuk membantu para pemimpin untuk menguruskan krisis dan memikirkan semula dan berkembang dalam realiti pasca-COVID-19. Kajian ini terhad kepada syarikat pembinaan tempatan yang beroperasi di sektor perumahan. Selanjutnya, hasil penyelidikan ini memberikan gambaran yang mendalam mengenai keadaan industri di Algeria dan dapat berguna bagi para pemimpin untuk bertahan dari krisis.

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LIST OF ABBREVIATIONS

COVID-19	-	Corona Virus Disease 2019
HSE	-	Health, Safety and Environment
BIM	-	Building Information Modelling
UTM	-	Universiti Teknologi Malaysia
WHO	-	World Health Organisation.

CHAPTER 1

INTRODUCTION

1.1 Introduction

In December 2019, the first case of COVID-19 was discovered in Wuhan city in China, unfortunately the virus made its way to many other countries through traveling population (Kynge, 2020). The corona virus has been spreading drastically all over the world and was officially labelled by the World Health Organization (WHO) as a pandemic on 11 March 2020 (WHO, 2020).

The COVID 19 pandemic has caused health problems and a significant disruption to economies and societies on unprecedented scale (Gibson, 2020). Furthermore, the lockdown imposed by this crisis has created multiple challenges for various industries, including the construction sector (KMPG, 2020). Hence, this research was conducted to point out the impacts of COVID-19 on the construction industry in Algeria, and how can companies respond effectively respond to the crisis and succeed in the post-COVID era.

1.2 Problem Background

The impacts of COVID-19 have strongly affected the construction industry, these impact were immediately felt by organizations: sites shut down, supply chain disruption, and operational restrictions and many other further impacts are expected to hit the sector in the long term (Biorck et al., 2020). Hence, construction organizations are facing new challenges, from creating safety plans for workers protection (Brown, 2020), undertaking significant changes to adhere to the COVID-19 lockdown restrictions while being productive (Jallow, Renukappa, & Suresh, 2020), and developing strategies to protect their future revenue (Brown, 2020).

Around the globe, the construction sector has been strongly impacted by the lockdown measures imposed by the governments to reduce the spread of COVID-19. Algeria was not an exception, with more than 24,000 construction companies having their activities interrupted in one way or another, according to the Algerian Ministry of Housing (Bendaoud, 2020). Moreover, the mining and construction materials production have reduced by 7 percent in 2020 (FDFA, 2020). Furthermore, a report published by data analysis company GlobalData (2020) shows that the construction industry output is expected to decline by 2.4% in North African region due to the global health crisis. Even before the COVID 19 pandemic, the construction industry's performance in Algerian was facing many challenges: poor productivity, a fragmented ecosystem, recurrent delays, low quality, and budget overruns. The poor performance of the Algerian construction sector is the result of many factors: inadequate specifications, inefficient administration, weak project management and the absence of risk management tools (Fethi, 2015).

The pandemic outbreak and the concurrent crash in oil prices developed an uncertain economic environment (Bank, 2020). The impact of the coronavirus epidemic on the economy worries the already very fragile Algerian construction stakeholders. Since 2014, the drop in oil prices has gradually reduced the state budget and reduced foreign exchange reserves. Moreover, the government cut spending, cancelled projects, and cut operating budgets (Chenaoui, 2020). In 2019, the anti-government protest movement had already pushed 60% of construction companies to go out of business, according to the Confederation of Algerian Industrialists and Producers (Ziani., 2019)

The COVID 19 crisis coupled with the precedent crises witnessed by the Algerian construction sector might also represent a unique opportunity for local construction companies to improve their productivity, quality, and change the inhabiting traditions that are restricting the growth of the construction industry in Algeria. Hence, to transform these challenges to opportunities, Algerian organizations must identify the impacts of COVID-19 on their businesses and take proactive steps to mitigate them, and prepare themselves for what defines the new normal and the upcoming changes in the future.

1.3 Problem Statement

Construction is a core sector to the Algerian economy, the industry represents 12% of the country's Gross Domestic Product (ECA, 2016). However, the sector is facing headwinds from the COVID 19 pandemic and cannot be expected to be isolated from its damaging impact. Industrial and construction activity stagnated, tracking public and private demand (Bank, 2020).

At the very beginning of the second half of 2020, the construction activities across Algeria are progressively moving along a path to recovery, and companies are cautiously coming out of lockdown and preparing a progressive return to work. The Algerian government is trying to catch up with the delays caused by the health crisis (Chenaoui, 2020), and construction companies are adopting changes to adhere to the post-Covid19 reality while being productive. Hence, organizations faced many new challenges: social distancing regulations, reduced workforce, supply chain disruptions, and budget restrictions (Biorck et al., 2020). Moreover, before COVID-19, the construction industry in Algeria was facing many challenges; stagnant productivity, high rate of worksite accidents, low levels of digitization, and many other problems have dogged the industry for many years, fragmented ecosystem, and the high share of on-site manual labour (Imene, 2016).

While these obstacles certainly aren't insurmountable, the economic downturn isn't permanent, and the post-COVID-19 reality will be very different from the precedent era. Hence, this is a unique opportunity for organizations to change their processes. Construction leaders must identify the impacts of the pandemic on their organizations and the sector, make decisive reforms to move beyond the current crises, and proactively reshape their ways of operating to improve their odds of future success (Hook, 2020; Stebbing, 2020).

1.4 Research Aim and objectives

This research aims to establish a list of proactive steps that should help Algerian construction organizations to curb the COVID-19 impacts, and prepare themselves to thrive in the post-Covid-19 crisis reality. The main objectives are:

1. To identify the effects of COVID-19 on the construction industry.
2. To determine impacts of COVID-19 on the Algerian construction industry, and changes made by companies to mitigate them.
3. To develop a list of recommended actions to build an effective response to the crisis and thrive in the next normal.

1.1 Research Question

- (a) What are the impacts of COVID-19 pandemic on the construction industry in Algeria?
- (b) How can organizations mitigate these impacts, and continue being productive under the lockdown measures?
- (c) What practical steps and reforms that should be immediately adopted by organizations to prepare themselves for the next new normal?

1.5 Research Scope

This research will focus on the construction phase of projects in the city of Oran, and only the local companies are concerned by the study. The type of projects targeted is the residential sector because it represents the most important challenge of the Algerian construction industry (Reportlinker, 2016). To gather accurate data, only professionals involved in the project management in Algeria are concerned: engineers, architects, surveyors, project managers.

1.6 Importance of the study

This study provides a new insight of the current situation of contraction organization in Algeria. The findings of this research can be useful for policymaker, manager, and leaders to make decisions, reforms and develop strategies in order to survive the crisis and being in a solid position in the future.

1.7 Work plan

This study is divided into five chapters. The first one is the introduction, this part provides an overview about the subject of the study, its objectives and its aim. The problem tackled by this study was also sited and detailed in this chapter. In the second chapter, a resume of different information related to the subject of the study, and were collected through a literature review. The third chapter which is the methodology represents the research approach adopted and the protocol selected to collect the necessary data for this study, and how this data was analyzed. The fourth chapter is Finding and Discussion, in which all the data collected was displayed and discussed to sort achieve the objectives targeted by the study and its aim. The final chapter is Conclusion, summarizing how the objectives of the study were achieved and answering the research questions.

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