

# EFFECT OF COVID-19 ON CEMENT INDUSTRY ECONOMIC PERFORMANCE: THE CASE OF DANGOTE CEMENT (ETHIOPIA) PLC

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June,2021 ADDIS ABABA, ETHIOPIA

# A THESIS SUBMITTED TO ST. MARY'S UNIVRSITY SCHOOL OF GRADUATE STUDIES

# RESENTED IN PARTIAL FULFILMENT OF THE REQUIRMENT FOR MASTERS OF ARTS IN BUSINESS ADMINISTRATION (MBA)

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JUNE, 2021

ADDIS ABABA, ETHIOPIA

# St. Marry University

# **School of Graduate Studies**

# **MBA** in General Management

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#### **ACKNOWLEDGEMENT**

First of all, I would like to praise the ALMIGHTY GOD for all the things happened in my Life and giving me his blessing every day. Am here because of His Grace!

My deepest Gratitude goes to my Adviser Yibeltal Nigussie (Ass. Professor) for his valuable guidance in the course of producing this research Paper.

I would like to express my sincere appreciation to my Friend Zelalem Bezabih who extended his professional support in every way that I was looking for, really am grateful! My special thanks goes to all the key respondents, Managers, deputy managers and principals who participated in answering the questionnaire, Focus Group Discussion and the company for availing the required information to undertake this research Paper.

Finally, I would like to thank all my families to stand beside me and support me in every way so I can be competent and finalize my study.

#### **ACRONYMES**

- 1. IATA-The International Air Transport Association
- 2. IMF-International Monetary Fund
- 3. WTO-World Trade Organization
- 4. NBE-National Bank of Ethiopia
- 5. OECD-The Organization for Economic Co-operation and Development
- 6. UNCTAD- United Nation conference on Trade and Development
- 7. WHO:- World Health Organization
- 8. UNECA-United Nation Economic Commission of Africa
- 9. ET-Ethiopian Air Lines
- 10. NBE:-National Bank of Ethiopia
- 11. MoTI Ministry of Trade and Industry
- 12. WB- World Bank
- 13. AfCFTA- African Continental Free Trade Area
- 14. GDP- Gross Domestic Product
- 15. PSNP- Productive Safety Net Program
- 16. UNIDO- United Nations Industrial Development Organization
- 17. UNDP- United Nations Development Program
- 18. UNDP LAC- United Nation Development Program Latin America and The Caribbean
- 19. MSMEs-Micro, Small and Medium Enterprises
- 20. CSA-Central Statistics Agency

- 21. MoFED-Minisry of Finance and Economic Development
- 22. MoFEDC-Minisry of Finance and Economic Commission
- 23. ICR- Institute for Creation Research
- 24. ODA- Official Development Assistance
- 25. FDI- Foreign Direct Investment
- 26. FGD- Focus Group Discussion

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#### **ABSTRACT**

Major lessons learnt in the due course include company level, industry level and country level remarks. In all level, there should be a proactive strategy for risk level mitigation and strategy which allows forecasting the danger coming in the future to act in a way to make all party aware and get ready for the prevention. Novel Corona virus (COVID-19) pandemic has spread all over the world following the outbreak in Wuhan City in Hubei Province of China at the end of the year 2019. In doing so, Input-Output Model has been employed to find out the Economic effect focusing on the 3 prominent economic factors (Revenue, Logistics and Supply Management, and Employee Benefit). Employing a mixed research approach, the economic effect of Covid-19 on Dangote Cement is examined in both depth and extent of influence. In the process, data was collected using semi-structured questionnaire and in-depth interview as a primary source and extensive desktop review as secondary source of data. Correlation analysis through explanatory and descriptive research design was conducted to clearly understand the hypothesized effect/impact of Covid-19 pandemic on the company. It is found that Covid-19 has effect on the company economic performance. The finding shows that, during the pandemic, the sales in terms of value shows a 12.54% increment and 8.98% increment in terms of Quantity. The market share has also increased to 28% during the pandemic outbreak from 25% in the preceding year 2019. In the same Manner, it is evidenced that the Logistics and L/C extension cost has shown a 161.43% increment and Employee Benefit shows an 8% decrease from the year 2019. Based on the above conclusion, it is recommended that there must be a proactive risk level mitigation strategy to resist the negative impact of Covid-19 pandemic and survive in a crisis as a nation and company at all firm, Industry and Macro-economic level

Key Words: - Coronavirus, Covid-19, company, Effect, pandemic

# **Chapter One**

#### Introduction

#### 1. Background of the Study

It is stated by Warwick and Roshen (2020), the COVID-19 outbreak (previously 2019-nCoV) was caused by the SARS-CoV-2 virus. This outbreak was triggered in December 2019 in Wuhan city in Hubei province of China. It was first reported in China as an infectious upper respiratory disease and the virus has since spread worldwide presenting one of the most serious global health crises in history, with high socio-economic costs. Initially the center of the outbreak was China with reported cases either in China or being travelers from China (Warwick and Roshen, 2020).

The outbreak spread out to Iran, Italy, Japan, South Korea, Spain, USA, Brazil, India, African continent and continues to spread across the world. Even though the cases reported from China are expected to have peaked and are now falling to zero (WHO 2020), cases reported from countries previously thought to be resistant to the outbreak, due to stronger medical standards and practices, say a country like Germany, had lately increased.

While some countries have been able to effectively treat reported cases, it is uncertain where and when new cases were emerging and will emerge. Due to the significant public health risk COVID-19 poses to the world, the World Health Organization (WHO) has declared a public health emergency on January 30, 2020, of international concern to coordinate international responses to the disease (WHO, 2020).

OECD (2020) states that there was also insufficient information given by the WHO to the people globally. In the absence of proper information and proper communication, people were unable to take proper prevention measures to deal with the pandemic. Also, the virus is more fatal for elderly population (OECD,2020).

Hospitals were perplexed with the huge number of cases they were receiving daily and due to shortage of masks and other protective clothing, nurses and hospital staff, who were essentially the front-line workers, continued to help patients without adequate protection (Warwick, et al, 2020).

It is acknowledged from both National and international broadcasting services and Medias that, following China practical experience, most of the advanced Economic country in Europe, USA, and Canada has enforced a rule and procedures to survive from the disease. Key measures adopted by most countries to curtail the spread include the closing of their frontiers and partial or complete lockdowns of economies which among other things have seen the temporary closure of businesses, schools, and social services.

Although the prevention process has shown some positive results and many countries started allowing movements by relaxing the strict lock down, at the time of conducting this research paper, the 2nd wave of the pandemic is again outbreak in the country where the virus has made severe damage. This might be due to the negligence of the people as a result of the announcement for the COVID-19 Vaccine.

The supply disruption in advanced economies like the U.S. is because of dependence on goods manufactured by China, where U.S. is importing different electronics and apparels from China. Due to the trade inter-dependence of countries on other countries due to lock-down and "stay-at-home" measures in China, the manufacturing, electronics, and apparel industry is facing severe disruptions which results in reduction in stock and a fall in sales (Shohini,2020).

Consequently, different institutions have put forward estimates of the anticipated economic losses that could follow the introduction of these measures. For example, the International Air Transport Association (IATA) projected revenue losses of up to US\$113 billion (Patrick, 2020) and the United Nations Economic Commission for Africa (UNECA) estimated at least US\$65 billion in revenue losses among Africa's top 10 fuel exporting economies (ECA - 2013).

First, being the last region to register COVID-19 cases, Africa was already experiencing the consequences mainly through its trade links with the European Union (EU), United States of America (USA) and China, resulting in diminishing markets for African exports. Second, as United Nation conference on Trade and Development (UNCTAD) states, while the infection rates in these regions have started to flatten out with economic stimulus and investment recovery plans underway, the opposite holds for Africa (UNACTD, 2020).

However, as it is stated by African News, as a country, Ethiopia has applied a partial lock down applied to some government offices, like immigration office, entertainment (Sport, Cinema and music concert, night clubs, etc.), crowd marketplace and some very sensitive service centers. The government has declared a state of emergency to implement and control the partial lock down for 5 months (African News: John Hopkins, (2020)

As per unpublished report of Ministry of Trade and Industry (2019), with government direction, some manufacturing industries has temporarily shifted their product following high consumer demand for preventive products like, textile and garment factories has started producing Face Masks and PPE, and soap and Detergent producers started producing Sanitizers. By doing so, they have at least managed to sustain the process of income generation because to the contrary of other countries in the World, Ethiopia has declared a labor law which prohibits employee termination during the pandemic and business, or other organization has to earn income to survive (Ayele, 2020).

The other advantage of Ethiopia from the Airline Industry is that may be Ethiopian Airlines (ET) is the last airlines to ban flights to and from China, and other countries. ET has also shifted the passenger aircrafts to Cargo in order to benefit from the industry monopoly created by the pandemic. By doing so, Ethiopia has minimized the total loss that could have been created due to passenger flight unavailability (MoTI, 2020).

This paper has explored the economic effect of COVID-19 Pandemic on Dangote Cement (Ethiopia) Plc. Input-output model is applied to find out how the pandemic affects the company by focusing on the dominant or prominent economic factors to the company (Revenue, logistics & supply management, and employee benefits).

#### A. Global Economic Impact of COVID-19

The spread of the coronavirus is having a profound and serious impact on the global economy and has sent policymakers looking for ways to respond. Success stories so far show that the right policies make a difference in fighting the disease and mitigating its impact, but some of these policies come with difficult economic costs. In many countries' policymakers forced strict curfews on their citizens. Success in containing the virus comes at the price of slowing economic activity, no matter whether social distancing and reduced mobility is voluntary or enforced. (MoFEC, 2020)

#### B. Covid-19 Impact on Ethiopian Economy

Ethiopia is facing the coronavirus pandemic while it is undergoing major economic, social and political reform to sustain the growth success and strengthen the foundations of the economy. It is important to bear in mind that Ethiopia's macro and development situation pre-COVID-19 brought with it distinct advantages and disadvantages as well as specific vulnerabilities (UN Ethiopia, 2020).

# 1.1. Statement of the problem

As regional and national economies change, and they continually do, it is called upon to try to assess and interpret the consequences. These consequences are sometimes called economic effect (Dave, 2002).

There are several steps to describing and understanding regional economic structures, values, effects, and, if appropriate, economic impacts. In the first instance, the researcher needs to scrutinize the structure of the local economy. The structure of the local economy entails not only its obvious composition – agriculture, manufacturing, trade, etc. – but those industries' relationships with each other locally and non-locally, and those industries' relationship with households in the region of scrutiny. To do this we have come to rely on input output accounts of local economies.

According to Warwick and Roshen on their study on Global Macro economic impact of Covid-19 (2020) "There are only a few studies of economic costs of large-scale outbreaks of infectious diseases to date: Schoenbaum (1987) is an example of an early analysis of the economic impact of influenza. Meltzer et al. (1999) examine the likely economic effects of the influenza pandemic in the US and evaluate several vaccine-based interventions. At a gross attack rate (i.e. the number of people contracting the virus out of the total population) of 15-35%, the number of influenza deaths is 89 – 207 thousand, and an estimated mean total economic impact for the US economy is \$73.1-\$166.5 billion".

As the name indicates, Novel Corona Virus (COVID-19) is occurred at the end of European year 2019, there are only few studies conducted on its economic and socio-economic impact on the global economy. An article by Shohini (2020), "Economic Impact of Covid-19 on the global economy".

There is also Article in Journal of Humanities and Social Sciences. A study by Ephrem (2020) on Novel Corona Virus Covid-19: Impact on Economic Development and Mitigating Solution for Developing Countries. A Covid-19: Economic Impact Responses Assessment and Policy Study by Ethiopian government on April 2020, COVID-19: potential impact on jobs and incomes in Ethiopia, and short-term policy options by Jobs creation commission Ethiopia on March 2020 and a study by UNIDO on Responding to Covid-19 crisis on June 2020. Most of these studies are made on the economic impact at a macro level.

In these studies, the manufacturing and construction Industries are assessed in a very slight or general manner, but the cement industries are barely highlighted. This study bridged the gap by exploring and found out the economic impact that COVID-19 has brought particularly on Dangote Cement (Ethiopia) Plc.

### 1.2. Basic Research Questions

This research will try to answer the below questions:

- A. What the effect of Covid-19 is on the company's revenue?
- B. What the effect of covid-19 is on the company's Employee benefit?
- C. What the effect of Covid-19 is on the company's Logistics and supplies management?

### 1.3. Objective of the study

#### 1.3.1. General Objective

The general objective of this research is to find out the impacts of Covid-19 on Dangote Cement (Ethiopia) Plc. on the Economic Performance.

#### 1.3.2. Specific Objective

The specific objective of the research is:

- 1. To find out the effects of COVID-19 pandemic on the company Revenue.
- 2. To find out the effects of COVID-19 pandemic on the logistics and supplies management of the company
- 3. To find out the effect of COVID-19 on employee benefits.

# 1.4. Hypothesis

The research has two hypotheses. The null hypothesis predicts absence of significance effect of Covid-19 pandemic on the economy of Dangote Cement. Whereas, the alternative dictates, otherwise.

- Ho- Covid-19 pandemic has no effect on the Company Revenue
- Ho-Covid-19 Pandemic has no effect on the logistics and supplies Management of the Company
- HO, Covid-19 Pandemic has no effect on employee benefits

# 1.5. Significance of the Study

As the data collected from World Economic Forum shows, COVID-19 pandemic could be one of the few respiratory disease which has spread widely and having a death toll surpassing 1 million within 8 months of the pandemic outbreak after the 1918 Spanish Flue which has affected the whole world with which the advanced economic country could not even avoid and almost all countries are affected badly from the outbreak. And this situation has created a new area of study to be explored for scholars which will also leads to a new kind of lifestyle.

Although there are few studies made on its impact, it still requires more studies to be undertaken. As this study is a case study on a specific industry and specific company, it will be a starting point for other studies identify the gap and conduct for a depth study. In addition,

based on the analysis and finding of this study, many other companies can get an experience from Dangote Cement (Ethiopia) PLC measures taken to resist the crisis and may take a good lesson from the failure that is evidenced from the finding.

# 1.6. Limitation and Scope of the study

#### 1.6.1. Limitation of the Study

This study is a case study to be undertaken on the big conglomerate company, Dangote Cement (Ethiopia) Plc; the findings may not be applicable to other Cement Industries or other sectors in the country due to the financial capacity that Dangote is having compared to other companies. Since the period that COVID-19 pandemic breakout has been experienced in the world in general and in Ethiopia in particular is only a year, this research may not be properly addressing all the possible economic effect.

Moreover, since the time frame or the pandemic outbreak is only a year, it will not allow using econometric research methodology which requires maintaining a sequence of data for quite some time longer. This therefore creates a limitation on the research methodology that has been employed in this research. Dangote Cement Ethiopia has started commissioning in 2015 and it became fully operational towards production, employment, and other important operation factors in 2016/2017. So, to employ scientific econometric research methodology, it requires a statistical data for more than 5 years.

Most importantly, there is model limitation as input-output model is originally developed for the regional and macroeconomic Impact assessment. However, the researcher has tried to align this model, so it is possible to evaluate the effect of Covid-19 on firm level.

#### 1.6.2. Scope of the Study

This study only addressed the 3 very important economic factors (Revenues, (which comprises sales of a unit product times number of products sold in this case), Logistics and supply

management and Employee Benefit) to the company that may largely affect the company's production effectiveness and the total revenue.

Though there are other economic factors that allows to evaluate the company profitability, this study only focused on the above 3 factors to evaluate the economic impacts of the pandemic on the company. The above three factors are selected as a prominent economic factor to the company to evaluate and assess the economic impact that Covid-19 has brought because, the researcher learned that these factors are very important variables which have a significant impact all over the company considering the company internal policy and dependency on the factors.

Even though Dangote cement Ethiopia is a multinational conglomerate company which is also administered by Dangote group residing in Lagos, Nigeria, the study has only focused to the Cement factory in Ethiopia. The study has covered the company both in Mugher Town where the plant is found and Addis Ababa Where sales and Marketing and Foreign Procurement is found.

The period that this research has covered is the year 2020 but for trend and impact analysis it will cover from the year 2015/2016-2020.

# 1.7. Organization of the paper

The study paper has five parts. In order of consecutive appearance, it includes Introduction, literature review, methodology, finding and analysis and conclusion and recommendations. The five Chapters will walk the reader through gradual proceedings of the research from defining the background, offering relevant literature, citing required methodological order followed by conclusive remarkable and way forwards.

#### **CHAPTER TWO**

#### REVIEW OF RELATED LITERATURE

#### 2. Introduction

The Covid-19 pandemic is one of the most serious challenges the world has faced in recent times. The total cost in terms of human lives is yet to unfold. Alongside the cost of lives and deep health crisis, the world is witnessing an economic down fold that will severely impact the wellbeing of large parts of the population in the years to come. Some of the measures that are currently being used to counteract the pandemic may impact our future lives in non-trivial ways. Understanding the association between different elements of the problem to broaden the policy space, with full awareness of the economic and social effects that they may bring, is the purpose of this series (UNDP LAC, 2020).

Experience from disaster recovery around the world shows that businesses may also experience decline and bankruptcy during the phase that follows a disaster even if they survived the disaster itself because they were not fully aware the situation in the market changed in the wake of a disaster. Therefore, this guidance is of a generic nature. It can be used by enterprises of any type to systematically identify potential issues and get down to solving them as quickly as possible to overcome difficulties during the COVID-19 pandemic (UNIDO, 2020).

In this section both the theoretical and Empirical literature will be discussed thoroughly. Under the first part of the theoretical literature the economic effect analysis, Input output models and the sectoral level of the covid-19 will be discussed. In the 2nd part of the review, the empirical literature, although the pandemic outbreak has been a year only, some real-world practical impacts and Conceptual framework of the study will be discussed.

#### 2.1. Theoretical Literature

#### 2.1.1. Economic Effect Analysis

Saul (1980) confirms that there are two basic ingredients to an economic effect analysis: an estimate of the exogenous or differential stimulus that serves as the direct impact, and a model of the regional economy that will produce estimates of the indirect effects.

As it is stated by Dave (2002), regional analysts are often asked to assess local economic conditions. As regional and national economies change, and they continually do, it is called

upon to try to assess and interpret the consequences. These consequences are sometimes called economic impacts.

At its most basic, an input-output (I-O) model is an accounting of transactions among industries, governments, households, and imports and exports. They help to identify the value and the extent of linkages among firms and industries in the study territory. When one firm makes a purchase of an input from another in a region, there is a linkage (Miller and Blair, 2009).

As it is cited by Raymond, the stronger the linkages, the more important the two (or more) industries are to each other and to the regional economy. Input-output models, allow identifying the structure and the linkages that exist in the regional economy. It is that strength that allows taking I-O modeling a step forward and compiling economic effects and economic impact studies.

Accordingly, the researcher has also produced an array of output from these models that helps to further characterize the effect of Covid-19 on Dangote Cement economic performance that is under this study.

#### 2.1.2. Kinds of Economic Measures and Key Terminology

Dave (2002) states that an Input-output models (I-O) produce quite a bit of information for planners and decision makers. The more useful results for most projects are estimates of total industrial output, different kinds of income, value added, and jobs.

Total industrial output for most industries is simply gross sales. For public or quasi-public institutions, it includes all public outlays, to include the value of government sales and other subsidies received. This helps to isolate the current economic value of their output to the citizens, or the area served. Total economic effects are the sum of direct, indirect, and induced effects. They are all the transactions attributable, either directly or indirectly, to the activities that are measured (Aaron, 2013)

To relate this theory to this research paper, total economic effects consider Direct and indirect effects of Covid-19 on the Company economic performance. Accordingly, out of the selected three economic factors, Revenue and, Logistics and supplies Management are considered to be

a directly related with the company economic performance, whereas Employee benefit is considered to be indirectly related with economic performance of the company.

#### 2.1.3. Input-Output (I-O) Model

Francois (1970) and Wassiley (1977) introduced Input-output (I-O) models which provide a detailed picture of the flow of products and resources within a given economy and between that economy and the outside world. Better yet, such models can be used to estimate economic multipliers for specific industries. The multipliers, in turn, form the basis for economic impact analysis, where the contribution of specific industries to a local economy or the effects of a given policy, event or investment can be estimated in terms of local jobs and local income.

#### 2.2. Studies on Covid-19

### 2.2.1. Effect on world Economy

A range of policy responses will be required both in the short term as well as in the coming years. In the short term, central banks and Treasuries need to make sure that disrupted economies continue to function while the disease outbreak continues. In the face of real and financial stress, there is a critical role for governments. While cutting interest rates is a possible response for central banks, the shock is not only a demand management problem but a multifaceted crisis that will require monetary, fiscal and health policy responses. Quarantining affected people and reducing large scale social interaction is an effective response. Wide dissemination of good hygiene practices as outlined by Levine and McKibbin (2020) can be a low cost and highly effective response that can reduce the extent of contagion and therefore reduce the social and economic cost (Warwick and Roshen, 2020).

# 2.2.2. COVID-19 Trend Statistics and immediate measures for Pertaining its spread.

Africa remains the region with the least number of both COVID-19 infection cases and deaths. As of 15 May 2020, a total of 4,308,809 cases including 298,680 deaths have been reported worldwide. Europe has both the highest number of infections and deaths with 2 persons per thousand populations having the infection. This is followed by the USA which has one person per thousand populations with the virus (ECDC and UNCTAD, 2020).

Two scenarios of mild and severe impact of COVID-19 on different aspects of African economies are envisaged, based on global GDP and commodity price projections by the OECD, IMF and the World Bank as shocks from COVID-19 for African countries. The shocks for the

mild impact scenario are taken as the average of the lower estimated values for GDP by the IMF, World Bank and OECD - a -1.25% decline in world GDP, a fall in fuel prices of 30% and its attendant effect on major exports and trade costs. In the severe impact scenario, the average estimated COVID-19 related decline in world GDP is 4% and fuel prices are expected to fall by up to 60% (UNCTD, 2020).

#### 2.2.3. Effects on Sectors

Next, the effects on related sector of the National Economy are discussed.

#### **2.2.3.1.** Impact on the construction sector

The most affected sectors in Ethiopia are manufacturing and construction, impacted by a significant drop in the global demand and a high dependency on international markets, and services in urban areas affected by a shock in local supply and demand. Construction has a huge proportion of temporary and unskilled workers. It is estimated in the market that at least of 60% of the projects in construction will cease due to lack of financial liquidity, with all temporary workers in these projects (daily laborers) to be laid-off. In construction, the impact will be seen on temporary workers or daily laborers due to the fact that construction works specifically small and medium projects will face significant loss on demand; hence, daily income will drop to zero for this segment (Job creation commission Ethiopia, 2020)

Based on the above study, the pandemic may negatively affect the demand for cement product as the construction sector has been affected which has an implication that the sales of the cement product could have been also decreased.

#### 2.2.3.2. Impact on manufacturing sector

Manufacturers, especially those dependent on foreign inputs from China (which supplies 26% of Ethiopia's total imports), are reporting delays in getting critical inputs, machinery, raw materials, or accessories (MoTI, 2020).

Manufacturers, especially those dependent on foreign inputs from China (which supplies 26% of Ethiopia's total imports), are reporting delays in getting critical inputs, machinery, raw materials, or accessories. Manufacturers are also having problems with travel interruptions affecting incoming/existing expatriate staff. Such supply chain interruptions are particularly severe for import dependent manufacturers (a significant share in Ethiopia), and this could

reduce or completely stop their operations for several quarters if the Chinese recovery is slow to pick up. (Cephesus Research and Analytics, 2020).

Manufacturing Industrial parks operate at minimum or reduced capacity due to limited supply of inputs and sharply reduced exports. A decline of export orders in key manufacturing sectors is felt (e.g., T&G and leather products) of approx. 20-30% due to shrinking global demand. This contraction and/or stoppage, however, are confined to 2nd Quarter-3rdQuarter of 2020 and a significant pick-up in orders towards the end of the year revives production and employment. Short term liquidity constraints are faced by companies, especially in export-oriented industries, due to declining revenues and increases in operational costs (United Nations Ethiopia, 2020).

In this sector, an important share of jobs is estimated to be impacted relatively quickly. Different sectors in manufacturing will be heavily impacted by the crisis, as a direct impact of the global demand shock, as well as the supply shock due to social distancing measures. Given that 80% of Ethiopia's exports go to Asia and Europe, and China being Ethiopia's major trading partner (more than one third of imports are from China), the slowdown is affecting all activities in manufacturing and construction. Sectors like floriculture and textiles are already witnessing more than half of drop in the demand and are currently laying-off important shares of their temporary workers (Job creation commission Ethiopia, 2020).

#### 2.2.3.3. Effects on Cement Industry

Cement is the prime ingredient used in the construction industry. Cement consumption has a direct correlation to economic growth and improvement in the living standards of society. Energy and capital intensity nature of the industry necessitate large investments that require long-term perspective on financing and returns. Besides, production and consumption of cement are mainly subject to economic and construction cycles, resulting in volatility of operating costs and revenues (MoTI, 2015).

As the COVID-19 outbreak has slowed construction in many countries, the industry has seen lower demand for its products, leading to overcapacity. Cement companies are largely expected to survive the crisis, but they must strengthen their sustainability and competitiveness. Companies must also reduce their carbon emissions for their long-term viability; with the

cement sector generating 7 to 8 percent of global greenhouse gas emissions, pressure is growing for the industry to achieve carbon neutrality (Cembureau, 2020)

A study by International Finance Corporation (IFC)-World Bank group (IFC) shows: Before the pandemic, the industry was not operating at full capacity; with the global economic slowdown, plants are expected to see further drops in utilization rates. The global average utilization rate, which refers to producers' actual output over potential output based on fully utilized production capacity, could fall as low as 60 percent for 2020 according to projections, from about 70 percent annually over the past five years (Roger, (2020).

While companies are likely to finish committed expansions that were delayed due to lockdowns, whether they start new projects beyond 2021 will depend on the pace of economic recovery. Stock prices and foreign exchange risks: Over the last 12 months, share prices of major cement producers have fluctuated by an average 47 % between their 52-week high and 52-week low. Fluctuations in foreign exchange rates have further eroded profit margins of cement companies in some emerging markets, and increased these companies' energy costs and cost of servicing debts in hard currencies (MoFEC, 2020)

# 2.3. Empirical Literature

#### 2.3.1. Background on Cement Industry

The Ethiopian ten years cement Industry Development strategy (2014) by Ministry of Industry indicated that, Ethiopia has greater potential for higher cement consumption in the coming years to come mainly due to persistent and robust GDP growth which is also estimated to sustain, increased cement consumption as a result of increasing per capita income and emergency of middle class; increasing government capital budget expenditure; rapid urbanization (4.3 %); high rate of population growth (2.6 %); serious housing deficit and large infrastructural gap among others (CSA, MOFED, ICR, 2014).

Besides, in order for the nation to realize the vision to join the middle-income group by 2025, several other mega projects will be undertaken in the next decade. In the Ethiopian context, the forecast of cement demand is highly dependent on the government capacity to finance construction projects. The amount of budgeted plan for which the government is willing and able to finance is increasing. In this regard, Ethiopia's capital budget expenditure has been rising continuously since the past ten years (MoFED, n.d)

The total cement consumption can be increased by the growth of urban population if it is supported by a proportional increase with income growth. As the urban population grows, the need for more housing, plan for slum upgrading, various infrastructure construction demands will be expected to increase. Accordingly, as urbanization, population growth and per capital income increase, there will be higher probability for cement demand increase (Chemical and Construction Inputs Industry Development Institute, 2017).

The Dangote Group continued its bold investment in all over Africa and invested a net worth of 720 million USD in FDI in Ethiopia in 2015. Part of the African conglomerate, the Dangote Cement Ethiopia operates with 2.5 million Metric Tons of annual production capacity. Located on Western Shoa, Adea Berga Woreda customarily known as Mugher area, the company directly employed close to 1,500 employs (www.dangotecement.com).

"Act fast and do whatever it takes" is the call of 40 prominent economists in recently published e-books, with a set of recommendations on monetary and fiscal policies. In these times of emergency, sit is better to over-do than to not do enough. More than 50 developed and developing countries around the world have adopted monetary policies, with mostly measures aiming at injecting liquidity into the economy, by purchasing debt by central banks, lowering interest rates and related policy measures (Jobs creation commission Ethiopia, 2020).

Ethiopia has been fortunate to have a comparatively small number of reported corona virus while the other side of the world was having a huge number of cases. As of end-March, the number of affected persons stood at just 26 persons, was almost exclusively in the capital city, and showed no obvious signs of shifting to an exponential growth trajectory. Among the 14 countries in the world with populations of more than 100mn people, Ethiopia shows the lowest reported virus incidence and is the only one with zero reported deaths. Even if there may be doubts on Ethiopia's reported figures (given very limited testing), there is little to suggest that a large number of deaths are occurring or that mass numbers of corona-affected people are filling up hospitals/health centers; this implies that prevalence/sickness is so far generally low within the population. (Jhone Hopkins University, (2020).

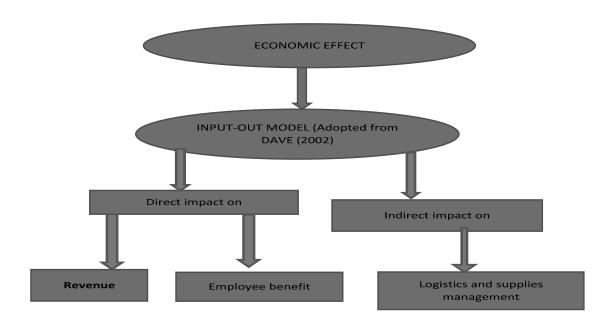
# 2.4. Conceptual Framework

This note offers a conceptual framework for analyzing the economic impact of the coronavirus disease (COVID-19) on Dangote Cement (Ethiopia) Plc. The Economic factors selected to

analyze the impacts on the company is limited in scope, covering fundamentals that are most likely and more significantly affect the company's operation.

First, the fundamental problems that the company currently faces will be described. The direct and indirect economic effect of the pandemic on the company operation will be considered. The impact on Revenues and logistics and supplies management are considered as a direct effect and the effect on production and employee benefits are selected as indirect impact. It is argued that the direct impact of Covid-19 could be more significant than the indirect impact.

All the above selected economic factors to analyze the effect of Covid-19 will be assessed using input-output model. The Input-Output model was adopted from Dave (2002) to analyze the economic impact. As long as the Covid-19 pandemic persists in time; the costs due to the direct impact on the company are exacerbated by the indirect impact: The Company has to continue to pay fixed costs while its incomes/revenue falls. This transitory fall in income, coupled with the uncertainty about how long the income shock will last, will lead to a significant increase in the demand for liquidity.



Input-Output model (Adopted from Dave Swanson)

The above input-Output model was originally developed for the economic impact study on the regional and macro level. Accordingly, this input-Output Model is used in order to analyze the economic effect of Covid-19 on firm level to find out the micro-Economic impact.

#### **CHAPTER THREE**

#### RESEARCH DESIGN AND METHODOLOGY

#### 3. Introduction

In this chapter, the Research methodology is discussed in detail by explaining the research approach to be employed to find out the economic effect of Covid-19 through the identified or selected economic factors. The sampling technique used to select the samples from the target population is also discussed. Sources of data and data collection methods through which the required information to analyze the effect are identified. Finally, the data analysis and presentation method is also determined in order to give the blue print of the final research work.

# 3.1. Research Design

Descriptive and Explanatory research design has been applied to find out what the effect of Covid-19 on Dangote Cement is and how it affects the company through the three economic factors for the company. In addition, it also identifies why some situation happened. The data collected through Desktop review, Semi-Structured questionnaire, in-depth interview, and Focus Group discussion is analyzed and presented in a descriptive manner.

Descriptive research design only answers the what question but does not answer the how and why question. So, combining these two-research design has helped to create a synergy of their strength and bridge the gap created by the weakness in the two designs.

#### 3.1.1. Research Approach

Mixed research approach (both qualitative and quantitative research approach) has been employed to analyze the data collected using different data collecting techniques. Accordingly, inferential research of Quantitative research approach was adopted to analyze the secondary sources of data to identify the magnitude of the effect and the Qualitative research approach was adopted through questionnaire and Focus Group Discussion (FGD) in order to understand the effect in depth. This is because since the study is a case study on a particular cement factory focusing on three main economic factors, the questionnaire and FGD has helped to exhaustively grasp the required information /data.

The choice of a mixed approach is rooted in the researcher belief that effect of Covid-19 on Economic performance has a double component of quantitative and qualitative nature. The above literature indicates that among the many features an effect on economic performance in a specific company can be described in Income generation, Logistics and supplies management efficiency and cost effectiveness and Employee benefits. All these three independent variables; Revenue, Logistics and supplies management effectiveness, and Employee benefits can be exhaustively assessed through both quantitative and qualitative research approach.

# 3.2. Source of Data and Data Collection Technique

Desktop review from the secondary source and raw data through questionnaire and in-depth interview / key informant interview as primary source was employed. In doing so, official, and non-official documents in evaluating trends and projections have been helpful. The primary data was also be collected by the researcher.

Data was collected from the main departments that the selected economic factors in relation to analyzing the impact that the pandemic has brought on the company, are directly related. These Departments are Sales and Marketing, Logistics and supplies management, and HR. Both primary and secondary data were collected. In doing so, an in-depth interview for selected respondents (the department managers and deputy managers) and a semi structured questionnaire will also be administered.

# 3.3. Target population and Sampling Technique

The research has focused on finding out the effect of Covid-19 on Dangote Cement Ethiopia economic performance. So, the focus is on one company as this is a case study and there will not be total population.

Since the required information/data to be collected could easily be identified from whom it may be obtained, Purposive sampling of none-probability sampling method was mainly used to identify respondents in both quantitative and qualitative segment of the research. Meaning, the respondents targeted for an in-depth interview was high level managers (Managers and deputy managers of each department) who are having adequate and reliable information in the economic factors of the identified departments of the company and at the same time for the desk review of the secondary that was done for the selected departments.

# 3.4. Method of Data analysis and Presentation

The study has employed the 3 economic factors to analyze the effect mainly using the Inputoutput model of economic impact analysis. Accordingly, data from each of the major departments was analyzed in a way that it indicates the internal or company level, relative (current versus previous periods) and macro level perspectives.

A trend analysis was employed to showcase the effect of the pandemic on the economic performance across the company. An inferential statistic with the help of SPSS was hired and a thorough analysis was held. Common descriptive statistics measures of frequency and other tabular data are enclosed as part of a descriptive analysis. Whereas correlation analysis was done on part of inferential analysis.

In addition, cross triangulation has back the qualitative part of the research. Data collected from varies sources was cross checked and categorized in a predefined themes to respond to each of the above identified specific objectives.

#### **CHAPTER FOUR**

#### FINDING AND ANALYSIS

#### 4. Introduction

Covid-19 pandemic has damaged the world economy as it is a communicable and respiratory disease by far and large posing higher no. of deaths on developed countries where there is higher no. of old age populated countries unlike most African countries in general and Ethiopia in particular. Countries with advanced Economy having big Size in the flow of capital, operational efficiency, technological advancement, and ability to suck in loss and afford cheaper pricing are also affected largely by the pandemic. This Chapter encloses the main findings on the Economic effects of Covid-19 on Dangote Cement (Ethiopia).

This particular inquiry aims a dig on the effect of Covid-19 Pandemic and its level of influence on the company economy as it's conceptualized in Chapter Two. The findings are presented and analyzed in both descriptive and inferential statistics. A thematic data presentation is followed by triangulation and multivariate analysis to better refine results. The analysis findings are presented in Input-out Put models using three factors that could significantly affect the company Gross income. In addition, based on the specific objectives, 3 models are developed to find out and discuss the impacts of these factors on the company's economy.

The overall analysis is done simultaneously on the data gathered through in-depth interview, Focus Group discussion, structured questionnaire, and desktop review. A combined analysis is focused in refining the responses of respondents as per the research objective.

# 4.1. COVID-19 Impact on company Income.

The Ethiopian Cement market was at its boom during the years since 2011. High demand for cement has driven prices to 100% double from where they are right now. According to a Chemical Institute (2015), never has been such a price hikes in cement market. A quintal of cement goes for 450 ETB. Customary experiences are shortage in delivery, delay in construction projects due to shortage of supply and recurrent customer order delays.

The insufficient market resorted to imports. The year 2012 marked the end of significant cement imports. This is partly due to the entrance of Derba Cement with 2.5 million Mt production capacity. Regardless, production and demand remain in coherent for the years to

come. As per Ethiopian Cement Strategy (2015), demand for cement grows at 15% annually. Meanwhile, production remained not that close. See table 4.1 below

Table 4.1. Total Cement supply and consumption

| Year    | <b>Domestic Production</b> | Import (In    | Total consumption in |
|---------|----------------------------|---------------|----------------------|
|         | In Mill MT                 | Million tons) | Mill MT              |
| 2003/04 | 1.42                       | 0.001         | 1.42                 |
| 2004/05 | 1.25                       | 0.061         | 1.25                 |
| 2005/06 | 2.75                       | 0.899         | 2.75                 |
| 2006/07 | 1.72                       | 0.935         | 1.721                |
| 2007/08 | 1.66                       | 1.446         | 1.661                |
| 2008/09 | 1.69                       | 0.25          | 1.691                |
| 2009/10 | 1.62                       | 0.784         | 1.62                 |
| 2010/11 | 2.719                      | 0.321         | 2.719                |
| 2011/12 | 3.765                      | 0.009         | 3.765                |
| 2012/13 | 4.73                       | 0.002         | 4.73                 |
| 2013/14 | 5.474                      | 0.001         | 5.474                |
| 2014/15 | 6.86                       | 0.002         | 6.86                 |
| 2015/16 | 7.738                      | 0.002         | 7.738                |
| 2016/17 | 8.624                      | NA            | 8.234                |
| 2017/18 | 10.02                      | 0             | 10.02                |
| 2018/19 | 11.83                      | 0             | 11.83                |
| 2019/20 | 13.96                      | 0             | 13.96                |
| 2020/21 | 16.47                      | 0             | 16.47                |
| 2021/22 | 19.43                      | 0             | 19.43                |

(Source: Chemical and construction input industry development institute report, 2015)

The year 2015, marked the entrance of Dangote Cement. This effectively would turn imports to nil and boost the overall demand to 8 million Mt per year. Dangote's entrance brought both challenges and prospect for the existing major competitors.

The difference in technological advancement and presumed international quality branding as well as added competition effected the pricing, quantity produced, quality, market share as well as operational efficiency of existing producers. As it is discovered in the interview of the top management, Dangote has shifted the dynamic of the market and has commanded the pricing situation in the retail market.

The detail account of Covid-19 effect on revenues (Sales), Market share, Logistics, and supplies management (Logistics expenses and delivery schedule) and employee benefit is seen below. In the analysis below, data from responses of in-depth interview, semi-structured questionnaires and focus group discussion, and highlights of desk top review is included.

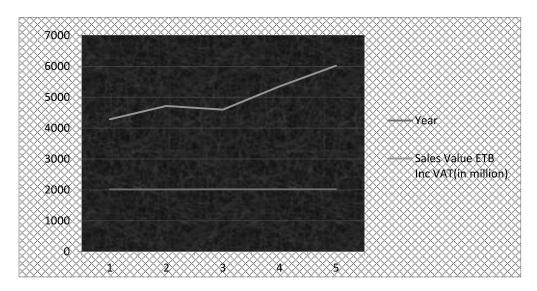
#### 4.1.1. Impact on company Revenue

The sales trend since the company starts operation fully in 2016 is seen in the below table 4.2. The trend shows that since the year 2016, the sales of the company show increment except in the year 2018. The sales shows 9.1% average increment every year. Focusing on the year 2020, the value of sales in 2020 is birr 6 billion which shows a 12.54% increment from the year 2019. Although the percentage increment is less than the year 2019 which is 16.41%, the sales has shown increment during Covid-19 Pandemic.

**Table 4.2 Trend Analysis of Total Revenue** 

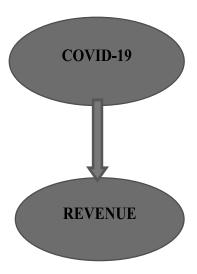
|           |           | SALES IN ETB (Million) |       |       |       |       |
|-----------|-----------|------------------------|-------|-------|-------|-------|
| S.N<br>O. | PERIOD    | 2016                   | 2017  | 2018  | 2019  | 2020  |
| 1         | JANUARY   | 297                    | 387   | 403   | 532   | 571   |
| 2         | FEBRUARY  | 327                    | 396   | 271   | 439   | 418   |
| 3         | MARCH     | 324                    | 398   | 687   | 408   | 425   |
| 4         | APRIL     | 371                    | 508   | 180   | 450   | 605   |
| 5         | MAY       | 362                    | 232   | 304   | 389   | 635   |
| 6         | JUNE      | 418                    | 453   | 314   | 308   | 423   |
| 7         | JULY      | 391                    | 475   | 409   | 705   | 545   |
| 8         | AUGUST    | 380                    | 300   | 368   | 529   | 376   |
| 9         | SEPTEMBER | 321                    | 379   | 301   | 243   | 513   |
| 10        | OCTOBER   | 180                    | 442   | 465   | 423   | 551   |
| 11        | NOVEMBER  | 615                    | 370   | 475   | 443   | 407   |
| 12        | DECEMBER  | 302                    | 383   | 418   | 484   | 553   |
| тот       | AL SALES  | 4,285                  | 4,721 | 4,595 | 5,349 | 6,020 |

When we see the monthly sales amount of 2020 relatively with the past 4 years, except for the month of March, July, August, and November, is higher. To illustrate further, the above table is summarized and displayed in a chart to see the trend and understand the effect.



The below model is developed to find out the impact of Covid-19 on the company revenue considering the information gathered while conducting the research. This will also be discussed further in depth inferentially.

Model 1: COVID-19 IMPACT ON COMPANY REVENUE



The below Tabe 4.3. will display the sells trend quantity wise and will clearly show the market share that the company possess since 2016 up until 2020 where the scope of this research paper is. So, this data will confirm if the market share is also increasing, and the total revenue received in 2020 is increased whether because of increase in the sold quantity or price increment.

As it is shown in the below table 4.2, unlike in the value (sales amount) which was increasing in almost every year, quantity sold is not continuously increasing. The average increment is 2.8% only and the quantity sold in 2020 shows an 8.98% increment from the year 2019.

Therefore, it is possible to say that Covid-19 pandemic does have a positive impact on the company sales both value and quantity wise

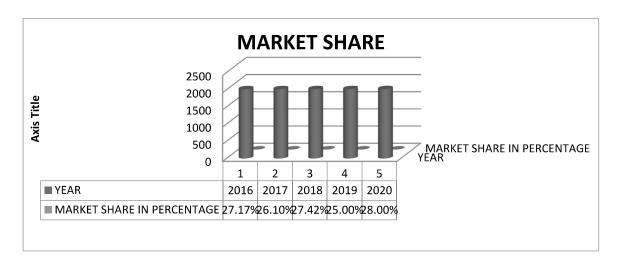
Table: 4.3. Sales in metric Ton from the year 2016 –2020

|     |                  | Sales in Tone |              |              |              |              |  |
|-----|------------------|---------------|--------------|--------------|--------------|--------------|--|
| No. | Cement Factories | 2016          | 2017         | 2018         | 2019         | 2020         |  |
|     |                  |               |              |              |              |              |  |
| 1   | Dangote Cement   | 1,933,934.31  | 2,142,863.23 | 2,071,705.26 | 1,970,446.36 | 2,147,490.78 |  |
|     |                  |               |              |              |              |              |  |
| TOT | AL               | 7,558,827.85  | 8,283,088.36 | 8,208,440.73 | 7,864,375.89 | 7,602,476.75 |  |

Source: - MOTI (Ministry of Trade and Industry) and DCE

As it is depicted in the below chart, the market share of the company has increased from the year 2019 which was 25% to 28% in the year 2020. During the focus group discussion and intensive interview made with the General and deputy Manager of Marketing department, it is learned that in addition to the pandemic, the other factor like the political instability that the country has faced in the Northern part of Ethiopia, which made Messobo Cement Factory out of operation, who was the major supplier of special type of Cement product for the Ethiopian Great Renaissance Dum, creates higher cement product demand in one hand and shortage of Cement product supply on the other hand.

Hence, these factors were a multiplier effect on the increment of market share and sales which could be considered as the reason for the positive impact of Covid-19 towards revenue. Moreover, there was also a price increment in during as a result of the pandemic and shortage in cement supply.



Source: - (Chemical and construction input industry development institute)

#### 4.1.2. Trend Analysis for market share and sales (production)

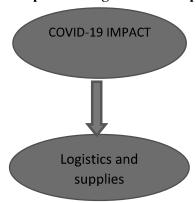
Table 4.4. Market Share trend (in percentage) from January 2016-April 30, 2021

|     |                  | Market Share in Percentage |        |        |      |      |               |    |
|-----|------------------|----------------------------|--------|--------|------|------|---------------|----|
|     |                  |                            |        |        |      |      | 2021 (January | /- |
| No. | Cement Factories | 2016                       | 2017   | 2018   | 2019 | 2020 | April 30)     |    |
| 1   | Dangote Cement   | 27.17%                     | 26.10% | 27.42% | 25%  | 0.28 | 26%           |    |

Source: - MOTI (Ministry of Trade and Industry)

# 4.2. COVID-19 Impacts on Logistics and Supplies Management

Model 2: Covid-19 Impact on Logistics and Supplies Management



Logistics is an Umbrella for foreign and Local Procurement, transport, dispatch, and store. So, to evaluate the effect of Covid-19 on the company economic performance, data has been collected from each department to explore if Covid -19 really affected the logistics and supplies Management as it is selected as economic factor to identify the effect. As it is described in the conceptual framework, the impact on Logistics is considered as a direct impact. This is because Covid-19 has affected freedom of movement and logistics frequently requires movement.

During the focus group discussion made with the department, it is understood that the challenge was mainly in both Local and Foreign Procurement. It is even worse for the foreign procurement, because for the local procurement, there was delay in delivery and price increment to some extent but not as foreign procurement.

For the foreign procurement, there are a lot of issues like redundant Letter of Credit (LC) Extension charges which is expensive, delay in shipping documents which leads into penalty, port storage charge, container demurrage charges and even cargo confiscation.

The Ethiopian government has waved the Penalty for keeping cargo in customs storage more than 15 days for sea shipment and 10 days for air shipment due to Covid-19 to support the traders. However, since the regulation of confiscating cargo and storage charges are not waved, this was a challenge and affected the company effectiveness and efficiency by delaying the process and work flow a lot. It was also observed that waving the 20% Penalty has created a tradeoff between other logistics costs and storage costs during covid-19.

In addition, due to complete lock down in different foreign countries airport and seaports, there was huge amount of costs incurred for LC period extension. As per the information collected from the company foreign Procurement unit under Logistics Department, the Ethiopian government has allocated around \$80 million to all cement factories in the country. It was a special approval by Ministry of Trade and directly allocated from National bank of Ethiopia to import Cement plant spare parts to alleviate the crisis created in the country due to shortage of Cement Supply

Accordingly, the foreign procurement Manager quoted "Dangote" (both Cement and packing plant) has got \$9.1 million and \$6.6 million was allocated for the cement plant and we have

fully consumed this amount and opened LC in three batches. Unlike other Cement industries, Dangote has fully consumed the allocated foreign currency to import different spare parts which previously the company was requiring.

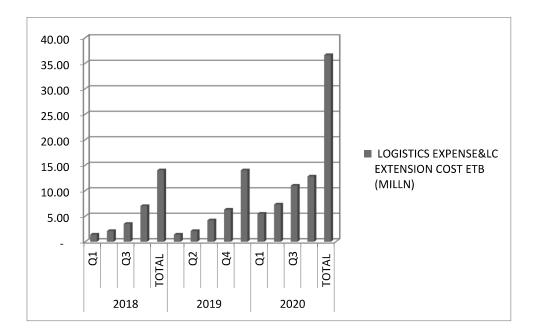
From the secondary data collected from foreign procurement, more than 60% of the suppliers requested 8-9 months delivery period which results in higher bank charges (referred as LC opening, service, and extension charges) for which bank charges 4% of the total LC amount. So, the reason for the long delivery period is resulted from vessel unavailability and port lock down because of Covid-19.

Table 4.5 shows the logistics expense and bank charges (expense) from the year 2016 up to 2020. The trend analysis helps to understand the impact of covid-19 on the company, cost wise. In addition to the direct additional costs that the company has incurred during Covid-19, the delay in delivery time (delay in supply of imported items) has created in low production capacity and less efficiency.

Table 4.5. Trend Analysis of Logistics cost/Expense (including LC extension charges)

| YEAR | -                        | LOGISTICS EXPENSE&LC EXTENSION COST ETB (MILLN) |
|------|--------------------------|---|
| 2018 | 1st Quarter              | 1.40  |
|      | 2 <sup>nd</sup> quanrter | 2.10  |
|      | 3 <sup>rd</sup> Quarter  | 3.50  |
|      | 4 <sup>th</sup> Quarter  | 7.00  |
|      | TOTAL                    | 14.00   |
| 2019 | 1 <sup>st</sup> Quarter  | 1.40  |
|      | 2 <sup>nd</sup> Quarter  | 2.10  |
|      | 3 <sup>rd</sup> Quarter  | 4.20  |
|      | 4 <sup>th</sup> Quarter  | 6.30  |
|      | TOTAL                    | 14.00   |
| 2020 | 1st Quarter              | 5.50  |
|      | 2 <sup>nd</sup> Quarter  | 7.30  |
|      | 3 <sup>rd</sup> Quarter  | 11.00   |
|      | 4 <sup>th</sup> Quarter  | 12.80   |

| TOTAL | 36.60 |
|-------|-------|
|       |       |



Based on the results from SPSS version 22 evaluated from the questionnaire collected from Logistics department, 100% of the respondents replied that covid-19 has impact on all the units in Logistics department. 57.1% of the respondents have agreed that the raw material is supplied from local market and 42.9% agreed that it is sourced from both local and foreign market; whereas 100% of the respondents agreed that other material is also sourced from foreign market. 71.4% of the respondents confirmed that the company was facing difficulty in getting shipping document from supplier and imported cargo from customs on time.

Table 4.6. Frequency Distributions of Logistics and Supplies Management Department

| Variables   | Frequency | Percepts     |
|---|-----------|--------------|
| COVID-19 Pandemic affect (Positively/negatively) all these Units          |           |              |
| Yes   | 7         | 100          |
| No  |           |              |
| Where do you Get the raw material used as input for your cement           |           |              |
| product?  |           |              |
| Locally   | 4         | 57.1         |
| Both locally and outside the country                                      | 3         | 42.9         |
| Are you Importing any items other than raw material from foreign          |           |              |
| country?  |           |              |
| Yes   | 7         | 100          |
| No  |           |              |
| What is your source of foreign (Hard) Currency?                           |           |              |
| Governmental allocation   | 6         | 85.7         |
| Company   | 1         | 14.3         |
| COVID-19 bring any impact (positive/negative) on the foreign currency     |           |              |
| approval  |           |              |
| Yes   | 7         | 100          |
| No  |           |              |
| Have you had trouble in the shipment of import cargo during Covid-19      |           |              |
| pandemic out break?   | 3         | 42.0         |
| Yes   | 4         | 42.9<br>57.1 |
| No  | ,         | 57.1         |
| Have you experienced delay in delivery of imported goods during Covid-    |           |              |
| 19 pandemic outbreaks?  |           |              |
| Yes   | 4         | 57.1         |
| No  | 3         | 42.9         |
| Did you Face any difficulty to get shipping document for imported goods   |           |              |
| from supplier's side during COVID-19?                                     | _         | 71.4         |
| Yes   | 5         | 28.6         |
| No  | 2         |              |
| Face any difficulties in finding supplies to your company during Covid-19 |           |              |
| outbreak  | 1         |              |
| Yes   | 6         | 14.3         |
| No  |           | 85.7         |

Therefore, both the descriptive part made using the secondary data, interview and questionnaire which is evaluated using SPSS statistics application for data interpretation, the impact of Covid-19 on logistics and supplies management is significant which rejects the null hypothesis.

## 4.3. Covid-19 Effect on Employee benefit

Here Employee benefits include monthly salary, applicable allowance including bonus twice a year, birthday allowance per year, marriage Allowance per occasion, Leave allowance per year, medical allowance. Based on the questionnaires, in depth interview and Focus group discussion, it is learned that the company will make salary increment every year based on the performance appraisal performed twice a year Mid-year assessment to be undertaken by all departments and units in the organization.

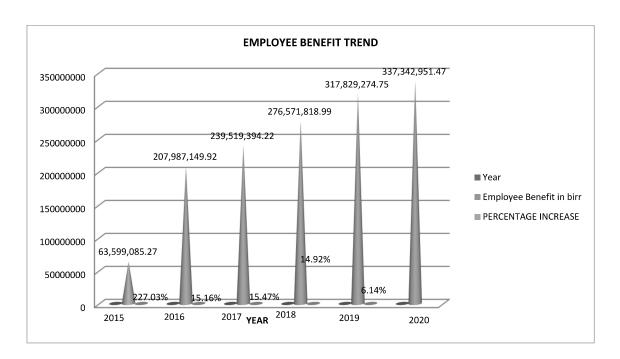
Model3: Covid 19 Impact on Employee Benefit



So, as it is shown in the below table 4.4, the trend of salary increments from the year 2016 up to 2019 is quite the same and 15% on average for the three years.

Table 4.7: Trend Analysis of Employee benefit

| Year | Employee Benefit in birr | PERCENTAGE INCREASE |
|------|--------------------------|---------------------|
| 2015 | 63,599,085.27            |                     |
| 2016 | 207,987,149.92           | 227.03%             |
| 2017 | 239,519,394.22           | 15.16%              |
| 2018 | 276,571,818.99           | 15.47%              |
| 2019 | 317,829,274.75           | 14.92%              |
| 2020 | 337,342,951.47           | 6.14%               |



The trend in salary increments from the year 2015-2020 has shown two extremes, the first is the employee benefit increase shown in 2016, that is 227% compared with the employee benefit in 2015, this has resulted from new employment, as the company has started commissioning in June 4, 2015 and the 2nd is in 2020 which was the minimum compared with the other three years (2016-2019) that is 6.14% increase in employee benefit from the year 2019.

Therefore, Covid-19 has significantly affected the company in a way the company could be beneficial, and it has a positive economic impact on the company by decreasing the expenses to be made as salary and other allowances which are to be calculated from the basic salary of each employee. This has also another positive implication on the company expenses to be paid as pension which is also to be calculated from each employee's basic Salary.

Table 4.8. Frequency Distributions of HR-Department

| Variables  |          | Frequency | Percentage |
|--|----------|-----------|------------|
| Has there been Employee reduction in 2020  |          |           |            |
| Y  | ⁄es      |           |            |
|  | No       | 7         | 100        |
| Has there been any unemployment due to Covid-19?   |          |           |            |
|  | es/      | 1         | 14.3       |
|  | No       | 6         | 85.7       |
| Has there been a reduction in level of employment/ sala due to Covid-19?                 | ary      |           |            |
| Y  | ⁄es      | 1         | 14.3       |
|  | No       | 6         | 85.7       |
| Have you given force leave to your employee during                                       |          |           |            |
| COVID-19 Pandemic outbreak in Ethiopia?  |          |           |            |
|  | ⁄es      | 4         | 57.1       |
|  | No       | 3         | 42.9       |
| You have employee who has been infected with Covid-1                                     | L9       |           |            |
| _  | es/      | 6         | 85.7       |
|  | No       | 1         | 14.3       |
| Have you experienced Shortage of casual labour been                                      |          |           |            |
| observed due to Covid-19?  |          | 3         | 42.9       |
| _  | es/      | 4         | 57.1       |
|  | No       |           |            |
| Has there been an increase in time spent on caring dutie for someone sick with Covid-19? | es       |           |            |
| Y  | ⁄es      | 3         | 42.9       |
|  | No       | 4         | 57.1       |
| Does the company has Salary increment structure every                                    | ,        |           |            |
| year?  |          | 7         | 100        |
| Y  | ⁄es      |           |            |
|  | No       |           |            |
| Did the company Implement the salary increment in 2020?                                  |          |           |            |
|  | ⁄es      | 7         | 100        |
|  | No       | -         |            |
| Did Covid-19 affect the employee benefit in your company?                                |          |           |            |
|  | ⁄es      | 4         | 57.1       |
|  | No       | 3         | 42.9       |
| COVID-impact mitigation measures being targeted to                                       |          | _         |            |
| vulnerable groups, including for example women and temporary workers                     |          |           |            |
| 1  | 'es      | 3         | 42.9       |
|  | No<br>No | 4         | 57.1       |
|  | 140      |           | 37.1       |

The questionnaire was distributed to 7 respondents who are in Top, middle, and lower-level Management. So, all the respondents in HR-department have responded to the question asked by the researcher if there was salary increment in 2020 as "NO" and reason was given as due to Covid-19 pandemic outbreak in the world, Dangote Group Management from Lagos (Head Office) has decided not to apply the salary increment as the group Policy. Although, the salary increments to be applied in 2020 was for the employee performance (Key Performance

Indicator) of 2019, the group decided not to do any increment for all its company in the continent (Africa).

Out of the total sample size in HR-Department, 42% of the respondents observed that there was shortage of casual labor and 42% responded that there was increase in time spent on caring duties for someone infected with covid-19. 100% of the respondents have also confirmed that the company didn't do any employee reduction during Covid-19 Pandemic.

The analysis made using the secondary data (Desktop review), the employee benefit economic factor has shown that Covid-19 has affected the employee benefit negatively which resulted in positive effect on the company by reducing the employee benefits. However, although the company didn't apply the salary increment which implies cost reduction, it has another impact on decrease in the company efficiency as a result of employee absenteeism because of the infection.

The reason for raising the question if there was employee reduction and unemployment during convid-19 was to cross check and confirm whether the decrease in employee benefit is due to the abandoned salary increment because of Covid-19 or not. Accordingly, out of the total respondents, 100% responded "No" to the question if there was employee reduction in the because of Covid-19 and 100% of the respondents responded to "No" to the question asked if there was a salary reduction or level of employment.

According to the above detailed analysis, the null hypothesis is again rejected as Covid-19 has significant effect on the employee benefit by confirming that the reduction in employee benefit or the expense of employee benefit is due to the absence of Yearly Salary increment resulted from Covid-19 Pandemic.

## 4.4. Overall review of company Income during Covid-19 out-break

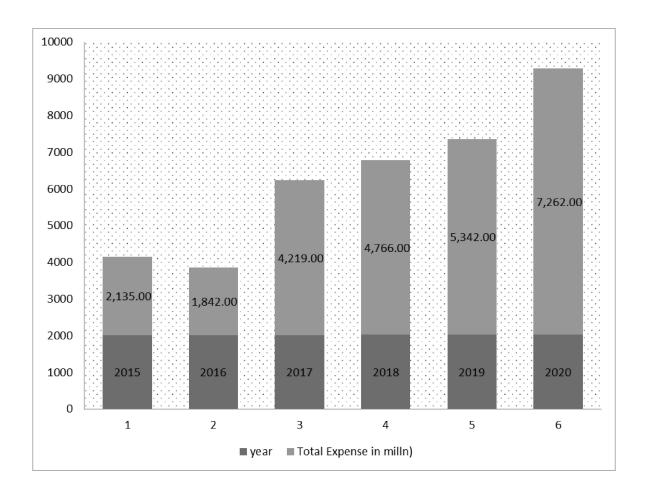
Here, to find out if covid-19 has a real impact on the company economy, a detail review of data collected is made on how it affects the total income. In doing so, the trend analysis of total revenue depicted in table 4.2 and the trend of total expense that the company has incurred (shown under Table 4.6 below) was exhaustively reviewed.

#### 4.4.1. Total Revenue

As it is shown in Table 4.2, the total revenue (sales) in the year 2020 has been increased by 12% from the preceding year 2019 and this increment was by far higher than that of previous years shown in the trend. So, based on the desktop review, interview and questionnaire, there are many factors that results increase in the total revenue (sales) of the company other than the price increment.

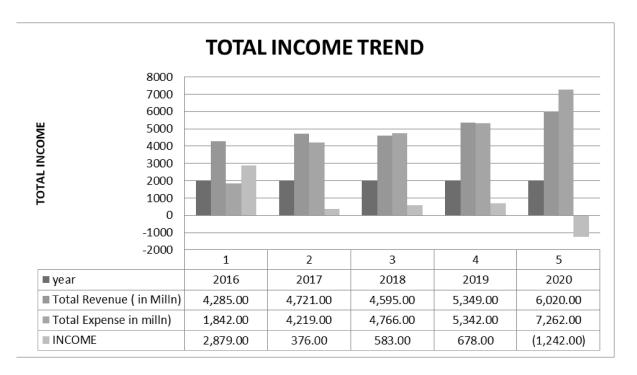
# 4.4.2. Trend analysis of Total Expense

As it is depicted in the below chart the total expense of the company shows increment except for the year 2016. The total expense has been increasing by 42.33% on average. The highest percentage increase in expense is seen in the year 2017 which was 129% and the second highest increment is in 2020 which was 36%. Compared to the previous two years 2019 and 2018 which was 13% increment on average, the expense/cost that the company incurred in 2020 is higher.



From the above discussion, we know that the company has got higher revenue during Covid-19 in 2020 (PxQ) and also increased amount of expense. Now, let's see if Covid-19 has Positive or Negative impact on the company Income.

Total Income = Total Revenue -Total Expense



The above Chart shows the total revenue and sells trend since 2016-2020. As it is displayed in the chart, although both the revenue and expense of the company has shown increase, due to excess expense/cost that the company has incurred than its revenue, Income total income is Negative (there is budget deficit). Hence, this confirms that Covid-19 pandemic has a negative impact on the total income of the company.

## **CHAPTER FIVE**

# SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5. Summary

The result of the analysis made using both qualitative and quantitative research approaches has confirmed that Covid-19 has affected the company economic Performance. The three prominent economic factors selected to examine Covid-19 impacts on the Company are Revenue, Logistics and supplies Management, and Employee Benefit.

Accordingly, the sales of the company both in value, quantity and market share has increased by 12.54%, 8.98%, and 3% respectively. The logistics and supplies management has also shown a higher cost increment in the year 2020 by increasing the costs of logistics and LC extension by 161.43% during the year 2020. Finally, the employee benefit has also shown a decrease by 143% in the year 2020 from the year 2019.

#### 5.1. Conclusion

The overall aim of this research was to examine the effect of Covid-19 on Dangote Cement (Ethiopia) Plc economic performance. which is part of the Dangote conglomerate working in all over Africa. The later was founded in 2015 as the biggest cement manufacturer in East Africa. With the yearly capacity of 2.5 million Metric Tons, it has over run the competition from local manufacturers and now is a leader in the 9.2 million Mt market capacity in Ethiopia. In doing so, the independent variable in this study is Covid-19.

The effect on the company economic performance is conceptualized based on three main dependent variables. These are: - 1. Revenue (Sales in total value, quantity and market share), 2. Total Expense in general, Logistics expense, logistics and supplies management and 3. Employee benefits.

Both descriptive and inferential analysis was done to get a sense on the effect of Covid-19 pandemic on the company economic performance. Apparently, Multi-National Companies superiority in production efficiency and technological advancement and the fact that they can survive in a very critical condition seems the impact insignificant. The effect is strongly

implicated with the rejection of the null hypothesis which claimed no relation among the independent variable of Covid-19 and the three dependent variables selected as economical factor for the company.

Sales of the company both in terms of value (birr) and in terms of quantity plus the market share are intensively analyzed and evaluated using both the secondary data, desktop review in descriptive approach and SPSS results from the semi-structured questionnaire quantitatively. The result shows that Covid-19 has a positive effect evidencing increase in sales value (birr), sold quantity (in MT) and Market share (in Percentage).

It has strongly affected the total revenue by increasing the sales from yearly 9.6% to 12.54%. Although, it has been confirmed that there was a price increment during covid-19, price was not the only reason value of sales but there was also increase in quantity sold. The quantity has shown increment with 8.98% which was quite a significant impact from the previous years which on average was 2.8% increment for the past 4 years. The market share was also the highest from all the past 5 years especially compared with the year 2019.

This result proves wrong the studies and theories discussed in Chapter two Literature review which has stated that there will be a decrease in manufacturing products and most importantly in the construction sector as there will be shortage in raw material and different equipment's resulted from shortage in foreign currency and labor force reduction. However, in the case of Dangote, it is evidenced that there has been shown increase in sales and increase in company's product highly.

On the other hand, it is found out that company expense especially the logistics expense has increased a lot. Although the government has given a waiver for imported goods storage penalty for both shipment modes, the company has incurred huge amount of costs for sea freight, inland freight, container demurrage, port storage and huge amount of extension charges applied on.

To the contrary, Covid-19 shows a positive impact on the company due to abandoned yearly salary increment because of the pandemic that Dangote group waived from all its companies in Africa. The Employee benefit shows a very low percentage increment compared with the previous year which has resulted from non-Covid-19 situation. The company has a salary

Pandemic break-out, as conglomerate and administered by Dangote Group located in Lagos, Nigeria, the company did not apply the yearly salary increment in the year 2020. This has brought a fortune for the company by reducing the possible employee benefits that could have happened if salary increment were applied. So, this has a positive impact on the company. In addition to the logistics costs, though with low significance, other company expenses are increased, and the total expense has exceeded the total revenue and the total impact of Covid-19 shows a negative impact.

Therefore, we can conclude that Covid-19 has positive impact towards the revenues (Sales in value, quantity, and market share). However, when we sum up all the above findings, the increase in revenue and increase in expense creates a tradeoff between Revenue and expense. This has resulted in a negative impact on the company showing a declining graph for income for the year 2020.

#### 5.2. Recommendations

Understanding the effect of any pandemic is instrumental on devising a better engagement mechanism. The study has overseen its economic effect/impact on a particular cement factory selecting the main economic factors. Being a mixed research, it covered both depth and the significance level correlation among critical variables in the mix.

Major lessons learnt in the process include company level, industry level and country level remarks. Discussing economic status or impact ranges in those spheres of influence. Economic status or level of a business has individual, environmental as well as country wide macroeconomic dimension. Such is the lesson in going forward. Accordingly, the recommendation focuses on what mitigation strategy and government policy is developed to resist the negative impact of Covid-19 pandemic and survive in a crisis as a nation and company. This is in added context to how companies should adjust themselves to the threat and blessings of Covid-19 (any related pandemics).

#### **5.2.1.** Firm level recommendations

- Company proactively works on developing a risk level mitigation of the Pandemic
- Employee benefit should be considered as it has an indirect impact which is argued in Chapter two. Employee benefit will impact the employee motivation which is a positive factor for productivity and efficiency.
- Psychological impact should be dealt properly.
- The infrastructure to comfort the employee and benefit the company should be arranged in advance so it is convenient to any workers to work from home when it is required
- Raw material stock should be kept at least for 8-12 months to sustain the supplies of inputs and keep undisturbed production.

#### **5.2.2.** Industry level recommendations

- The Chemical and construction inputs industry development institute report Vol 2 No 4/2020 shows that 1 out of 5 workers are employed in construction industry and there must be an appropriate strategy to mitigate the risk level of the Pandemic.
- Energy being the biggest expense covering almost 60% of production sources, perhaps the government need to take the initiated to come up with cheaper means of getting coal from local
- Allow electronic shipping documents to be used for customs clearance and foreign currency reconciliation at NBE.
- Valuation process of imported goods assessment by Customs commission takes too
  much time and to minimize the time, better to allow valuation post customs
  clearance.
- Online signature for goods release from customs will minimize the clearance period and storage charges and needs government attention to allow it.

#### 5.2.3. Policy/Macroeconomic implications

- Government should prepare risk level mitigation strategy at macro-Level.
- Waiving Logistics costs like storage penalty, storage and demurrage costs should last long at least the movement restriction waived.

- Bank charge should also be managed to minimize the negative impact of the pandemic.
- Promoting national pride on products manufactured and owned locally will play to the benefit of local capacities
- Encourage to own dollar account to deposit foreign currency for MNCs like
   Dangote instead of obliging the deposit to retention account.
- Increase the no. of days of foreign Currency deposit in the retention account before conversion to local currency, this will trigger the foreign market.

## 5.2.4. Educational and Research implications

By far the greatest lessons learnt in this study are indicated above through firm level, industry level, and Macroeconomic level recommendations. To sum up, the entire input is on how to resist and stay still or survive from the economic impact/effect that Covid-19 has brought in.

Areas of future research are also identified in the process. For instance, further studies need to be conducted on other areas of Covid-19 impact on the company. Socio-political impact, Socio-Cultural and Psychological impact that Covid-19 has brought. In addition, the other detailed process of the company should also be done in longer time scope to better evaluate the impact. As it is already discussed in the literature review, as covid-19 pandemic persists, due to fixed cost, the company will be affected more.

Socio-cultural and psychological engagement with its employee and community is another area of further study for better and sustainable eradication or mitigation of Economic Impact. For instance, Cost factors due raw material access conflict in particular in Oromia region resulted in extra payment by firms which drove up their manufacturing costs. This adds up fuel in prevailing cost hikes as the result of shortage of foreign currency and local currency devaluation and a rise in international coal and other material price. Further inquiry on actual impact will perhaps give us a vivid image on the above matter.

In addition, this study has selected three main economic factors which could mostly be affected due to the pandemic as independent variables to evaluate the impact but there could have been other factories which can help to evaluate the impact of Covid-19 on the company in a detailed manner. For instance, the company productivity (effectiveness and efficiency) shall also be valid to clearly understand the economic impact of the pandemic on the company and the other

side of the impact (tax payment side) should also be analyzed to have a clear picture of the impact of the pandemic.

Finally, as this study has covered one year which is a very narrow scope towards time (period) which is one year, the effect study may not be significantly addressed and explored. This will help other researchers to use this research paper as a starting point to extensively undertake the more detailed economic factors to find out the possible economic impact to the cement industries and identify the short- and long-term impact of Covid-19 Pandemic in depth

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## **APENDIX I**

# Semi-structured Questionnaire for Sales and Marketing Department

Dear Sir/Madam

1.

My name is Tigist Aklilu, I am a General MBA student in St. Marry's University, school of Graduate, Faculty of Business and Economics for academic year 2020-2021. I am conducting a research to obtain information on Economic impact of COVID-19 on Dangote Cement (Ethiopia) Plc. I would greatly appreciate you completing the enclosed questionnaire, and you could have around 5 days to answer the questions. It will be plenty of time for you to think about the answers. Your answers will be a great help for my research. Please send the complete questionnaire through this email (tgaklilu2008@gmail.com); answer every question as much as you can. Because only a relatively small number of people are being surveyed in your department, your response is very important to my research. Your answers will, of course, be strictly confidential, and this questionnaire is anonymous. Thank you in advance for your time and effort.

| 1.  | Please tick with   | "X" for your position       |                              |      |
|-----|--------------------|-----------------------------|------------------------------|------|
| Тор | level Manager      | Middle Level Manager        | Lower/Operating level Manage | ment |
| 2.  | What is your de    | signation/Job Title         | ?                            |      |
| 3.  | What was the m     | arket share of Dangote Ceme | nt before COVID-19 outbreak? |      |
| 4.  | What is the man    | ket share of Dangote Cement | After the break down         |      |
| 5.  | Who are your c     | ompany competitors?         |                              |      |
| 6.  | How is your sale d | uring Covid-19 pandemic out | break?                       |      |

|  | _How   | is  |
|--|--|---|
| emand for your cement product during Covid-19 outbreak?                      |  |   |
|  | _How   | is  |
| upply of your product in the market during Covid-19 outbreak?                |  |   |
| How was the dispatch of your product to your customer during Covid-19?       | _  |   |
| Does Covid-19 affect distribution of your product to your customers?         |  |   |
| YES B) NO  |  |   |
| If your answer is yes, please explain how it affects and how you mitigate to | o solve  | the   |
| lem  |  |   |
| What has been the market price trend?  | _  |   |
| How did COVID-19 affect your sales in general? Please explain.               | -  |   |
|  | Inpply of your product in the market during Covid-19 outbreak?  How was the dispatch of your product to your customer during Covid-19?  Does Covid-19 affect distribution of your product to your customers?  YES  B) NO  If your answer is yes, please explain how it affects and how you mitigate to em  What has been the market price trend? | How upply of your product in the market during Covid-19 outbreak?  How was the dispatch of your product to your customer during Covid-19?  Does Covid-19 affect distribution of your product to your customers?  YES  B) NO  If your answer is yes, please explain how it affects and how you mitigate to solve em  What has been the market price trend? |

## **APPENDIX II**

## **Semi-Structured Questionnaire for HR-Department**

Dear Sir/Madam

My name is Tigist Aklilu, I am a General MBA student in St. Marry's University, school of Graduate, Faculty of Business and Economics for academic year 2020-2021. I am conducting a research to obtain information on Economic impact of COVID-19 on Dangote Cement (Ethiopia) Plc. I would greatly appreciate you completing the enclosed questionnaire, and you could have around 5 days to answer the questions. It will be plenty of time for you to think about the answers. Your answers will be a great help for my research. Please send the complete questionnaire through this email (tgaklilu2008@gmail.com); answer every question as much as you can. Because only a relatively small number of people are being surveyed in your department, your response is very important to my research. Your answers will, of course, be strictly confidential, and this questionnaire is anonymous. Thank you in advance for your time and effort.

| 1.    | Please tick with   | "X" for your position        |  |
|-------|--------------------|------------------------------|--|
| Top I | level Manager      | Middle Level Manager         | Lower/Operating level Management       |
| 2.    | What is your de    | signation/Job Title          |  |
|       |                    |                              |  |
| 3.    | Could you plea     | se tell me the number of Emp | loyees both permanent and contract who |
| are w | vorking In your co | mpany                        |  |
|       |                    |                              |  |
|       |                    |                              |  |
| 4.    | Is there employ    | ee reduction in 2020?        |  |
| A)    | YES                | B) NO                        |  |
| 5.    | If your answer     | s yes, please explain why    |  |
|       |                    |                              | _                                      |
| 6.    | Has there been     | any unemployment due to Cov  | vid-19?                                |
| A)    | YES                | B) NO                        |  |

| 7.          | Has there been a reduction in level of employment/salary due to Covid-19?              |
|-------------|--|
| A)          | YES B) NO  |
| 8.<br>Ethio | Have you given force leave to your employee during COVID-19 Pandemic outbreak in pia   |
| A)          | YES B) NO  |
| 9.          | If your answer is yes, please explain why  |
| 10.         | Do you have employee who has been infected with Covid-19                               |
| A)          | YES B) NO  |
| 11.         | If your answer is yes, what measure did you take?                                      |
| 12.         | Has a shortage of casual labour been observed due to Covid-19?                         |
| A)          | YES B) NO  |
| 13.<br>19?  | Has there been an increase in time spent on caring duties for someone sick with Covid- |
| A)          | YES B) NO  |
| 14.         | Do you have a salary increment structure every year?                                   |
| A)          | YES B) NO  |
| 15.         | If your answer is yes, how do you implement the salary increment?                      |
|             |  |
| 16.         | Have you implemented the salary increment in 2020?                                     |
| A)          | YES B) NO  |
| 17.         | If your answer is No, please explain why.  |

| 18.            | Did Covid-19 affect the employee     | penefit in your company?                                |
|----------------|--------------------------------------|---|
| A)             | YES                                  | B) NO   |
| 19.            | If your answer is yes, please explai | n how.  |
|                |                                      |   |
| 20.<br>implen  | What COVID-impact mitigation ranged? | neasures are being implemented or planned to be         |
| 21.<br>for exa | Are COVID-impact mitigation mea      | sures being targeted to vulnerable groups, including s? |
|                |                                      |   |

## **APPENDIX III**

# **Semi-Structured Questionnaire for Logistics Department**

Dear Sir/Madam

My name is Tigist Aklilu, I am a General MBA student in St. Marry's University, school of Graduate, Faculty of Business and Economics for academic year 2020-2021. I am conducting a research to obtain information on Economic impact of COVID-19 on Dangote Cement (Ethiopia) Plc. I would greatly appreciate you completing the enclosed questionnaire, and you could have around 5 days to answer the questions. It will be plenty of time for you to think about the answers. Your answers will be a great help for my research. Please send the complete questionnaire through this email (tgaklilu2008@gmail.com); answer every question as much as you can. Because only a relatively small number of people are being surveyed in your department, your response is very important to my research. Your answers will, of course, be strictly confidential, and this questionnaire is anonymous. Thank you in advance for your time and effort.

| 1.    | Please tick with | "X" for your position            |   |
|-------|------------------|----------------------------------|---|
| Top l | evel Manager     | Middle Level Manager             | Lower/Operating level Management          |
| 2.    | What is your de  | esignation/Job Title             |   |
| 3.    | How many unit    | s are available under Logistics  | Department? Please list these Units       |
| 4.    | Did COVID-19     | Pandemic affect (Positively/n    | egatively) all these Units?               |
| A)    | YES              |                                  | B) NO                                     |
| 5.    | If yes which un  | it is affected more? And please  | e give brief explanation about the effect |
| 6.    | Where do you g   | get the raw material used as inp | out for your cement product?              |

| 7.                 | Are you importing any items from foreign country?   |             |
|--------------------|---|-------------|
| A)                 | YES B) NO   |             |
| 8.                 | If your answer is yes, what is your source of foreign (Hard) Currency?                    |             |
| 9.                 | How often do you get foreign currency approval for your import material from I            | —<br>Bank?  |
| 10.                | Does COVID-19 bring any impact (positive/negative) on the foreign curoval?                | _<br>ırrenc |
| A)                 | YES B) NO   |             |
| 11.                | If your answer is yes, please briefly explained how                                       |             |
| 12.<br>break       | Have you had trouble in the shipment of import cargo during Covid-19 pandenak?            | —<br>nic oı |
| A)                 | YES B) NO   |             |
| 13.                | If your answer is yes, please explain what was the difficulty faced in shipment of        | f carg      |
| 14. H              | How do you mitigate this difficulty?  |             |
| 14.                | How do you find the process of goods delivery of imported goods during Codemic outbreaks? | –<br>ovid-1 |
| pana               |   |             |
| -                  |   |             |
| pando<br>15.<br>A) | YES B) NO   |             |

| 17.  | How do you find the process of documentation for imported goods from supplier's side   |  |  |
|--|--|--|--|
| durin  | COVID-19?  |  |  |
| A)   | YES B) NO  |  |  |
| 18.<br>diffic  | If your answer is YES, please explain the difficulties and how you mitigate these ties |  |  |
| 19. Do you face any difficulties in finding supplies to your company during Covid-19 outbreak? |  |  |  |
| A)   | YES B) NO  |  |  |
| 20.<br>diffic  | If your answer is yes, please explain the difficulties and how you mitigate this ties  |  |  |
| 21.  | How do you evaluate Covid-19 effect on your department in general?                     |  |  |
|  |  |  |  |

# **DECLARATION**

I declare that this Thesis paper titled "ECONOMIC IMPACT OF COVID-19: THE CASE OF DANGOTE CEMENT is my original work which is prepared under the guidance of my Advisor Yibeltal Nigussie (Assistant Professor). All books, articles, journals, and sources from internet that are used as reference while undertaking this research paper are properly acknowledged and listed under "REFERENCE".

| Tigist Aklilu |           |      |
|---------------|-----------|------|
| Advisee       | Signature | Date |

# **ENDORSEMENT**

This is to certify that the research Paper entitled "Effect of Covid-19 on Cement Industry economic Performance: The case of Dangote Cement (Ethiopia) Plc." Prepared and presented by Tigist Aklilu, has got my approval

APPROVED BY:

YIBELTAL NIGUSSIE (Assistant Proffessor)

ADVISOR SIGNATURE