# The Effect of COVID -19 on Industry Sector in Ethiopia

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#### Abstract

Industrialization in Ethiopia is dated back to imperial regime. Starting from the time of commencement till today different industrial development plans has been set and then tremendous results have been achieved too. Before the pandemic, each sectors of economy has shown trend of increment in the GDP contributions and labor employments. These in turn makes the country to run on the right track of development. But nowadays, COVID-19 is becoming potential threat for all sectors of the economy. Also, as the global economy is in higher term oil conditions, it goes without saying that there would be disruptions in domestic demands. In turn, this has adverse impact on the level of jobs and income that most self- employed earned. Besides, as the manufacturing and construction sector deploy more temporary and daily laborers, the level of social crisis is highly pronounced on these sub sectors than the other sectors. Hence, curbing the challenge of the pandemic is a function of creating a resilient organization that analyzes possible risks in advance and making safety precaution, creating collaborative system with in industries and changing the trend of production to COVID-19 related products.

Keywords: Effect, Industry, Sector, Ethiopia

#### 1. BACKGROUND OF THE STUDY

Ethiopia has been dealing with industrialization since 1940s. By this, it laid bases for the establishment of different manufacturing plants in the country during imperial periods. Starting from the time of commencement till today different industrial development plans has been set and then tremendous results have been achieved too. This does not mean that it dealt with smooth sailing of operations, rather it has been encountering different hurdles to take its current shape With all ups and downs, in each of successive Ethiopian regimes: Imperial, Dergue and EPRDF; the sector¢s contributions to GDP has shown a trend of increment from year to year. Taking the recent Growth and Transformation Plan II (GTP- II that is being commenced from 2015 ó 2020) illustrates manufacturing sector as the major driver of economic growth through reliable source of export earnings, enhancing technological transfers and taking lions share in employing labor in order to change rural ó urban demographic balances.

Furthermore, the plan states in enhancing diversified exportable items being meeting global standard quality in order to be competitive in the world arena (A case study growing manufacturing Industry in Ethiopia, n.d.). Even though the plan is in its final year, it is in the year 2016/17, the manufacturing and industrial sector has contributed nearly 11% to GDP. Hence, it was a year in which higher contribution was registered as compared to earlier fiscal years. During this year, the contributions of agricultural and service sectors were 2.5% and 4% respectively. Therefore, it was for the first time that the industrial sector took the lead to drive the economy (Oqubay, 2018). In Ethiopia, the pandemic shocks the supply that is reflected in production shutdowns and supply chain disruptions, causing ripple effects across all economic sectors. Production closures and supply chain disruptions adversely affect production, generating negative shocks to supply. The measures that were taken by the government to contain the dissemination of the virus such as: social distancing, stay- at 6 home, partial lock downs etc would reduce both the supply of labor and utilizations of capacities by the firms

#### 2. STATEMENT OF THE PROBLEM

The effect of COVID-19 Pandemic in all nations on the globe is highly bolded these days. Of course, it is affecting all human kind irrespective of sex, religion, origin and other dimensions. It is also posing challenges in all sectors of economy in aggregate without differentiating the size, type and place of operations. It is an imminent treat for the globe as a whole and Africa in particular. As it makes most countries under lock down, it is obvious that there would be interruptions in supply chain which leads to both supply and demand shocks that in turn results loss of jobs and income.

In Ethiopia, the pandemic shocks the supply that reflected in production shutdowns and supply chain disruptions, causing ripple effects across all economic sectors. Production closures and supply chain disruptions adversely affect production, generating negative shocks to supply. As there is disruption of supply chain both domestically and globally which in turn leads to negative productivity thereby retarded economic situations in the country. In addition, the clumsy challenge that encountered the supply side can be directly reflected on the demand side. This is to mean that slowest business operations of firms will lead to reduce their demand for inputs as they possessed low financial positions. Also firms are not in a position to undergo

further investments as the pandemic made the future more uncertain. This gradually led to laying- off their labourers as they fail to meet their wages and salaries. In other words, loss of income by the consumers following slow transactions of business activities could oblige them to reduce the amount and type of items they consume.

COVID-19 imposed heightened impact on the manufacturing and construction sectors. Taking the global market in to considerations for example, there is a decline in demand of textiles that ranges up to 30% in Europe and if it continuous in this manner sooner a drop of demand to 25%, which is devastating. Of course, the need for masks and other protective materials might up lift the demand. When it comes to Ethiopia, there would be nearly 340,000 jobs disruptions over the next three months as per a medium estimate in the manufacturing sectors and 741,000 jobs in the construction sectors. If the pandemic lasts up to 6 months, nearly 1,760,000 jobs will be threatened in both manufacturing and construction sectors. That is, the impact on the sectors is highly bolded due to the existence of high conjugations with international markets where the demand is dropping from time to time. This in turn, affects the local demand and supply. Here it is worth to mention, more than 80% of Ethiopia exports go to Europe, Asia, and china and also third of imports are from china as china is a dominant trading partner (EFDR Jobs Creation Commission, 2020)

In Ethiopia, most manufacturing and construction sectors are dependent on international markets for supply chains. Therefore, as the global economy is in higher term oil conditions, it goes without saying that there would be a disruption in domestic demands too. In turn, this could have adverse impact on the level of jobs and income that most self- employed earned. Hence this study assesses the effect of COVID-19 on Ethiopian manufacturing sub sector. The objective of this study is to assess the effect of COVID-19 on Ethiopian manufacturing and forward possible solutions to overcome the threat.

## 3. LITERATURE REVIEW

The coronavirus pandemic has caused a severe challenge on the globe. Following this, most countries have been taking serious measures in order to minimize the treat caused by it. Nowadays, almost all African nations are threatening by the pandemic and then appear subjected to worsen dramatically. Here it is worth to recognize that the dissemination of the virus in Africa make the continent to suffer more as compared to other continents due to the fragile economy it possessed earlier pre the pandemic. Because there would be disruptions of the supply chain, restrictions in travel and social interactions, the enforcement of partial and full lockdown etc. would make the economy to be in haphazard circumstances which results in negative economic growth. Of course, the aforementioned phenomenon is not unique to African countries only rather it is a global challenge. But it goes from worse to worst to the continent as it had lowest health infrastructures, highest level of poverty etc. It is also obvious that the import and export trade of the continent is projected to be dropped at least by 35 percentages from the previous year of 2019. Hence the value lost is estimated nearly 270 billion US dollars. Also, to fight the spread of the COVID-19 and associated medical treatment in the continent could lead to an increment of public expenditure which is predicted to be at least 130 billion US dollars. Furthermore, the dependency of Africansø economies on foreign economies made the continent

to suffer a lot by the pandemic. Besides, it is practically difficult for the continent to take an economic advantage of the pandemic in other parts of the globe as it is unable to process its raw materials to meet demand of goods and services both in domestic and abroad markets. All these make the virus to have a harmful socioeconomic effect on Africa as a whole (African Union, 2020).

As per Oqubay (2018) in Ethiopia overall, 80 percent of enumerated wage employment in manufacturing was in food products and beverages, other non-metallic mineral products, textiles and apparel, rubber and plastic products, wood and wood products, furniture, and chemicals and chemical products. Also he revealed that, manufacturing is showing a trend of growth since 2005. In additions, the industrial output growth was approached to 20% within a year 2015-2017, also manufacturing output showed growth in the year 2005 ó 2010, and nearly 18% in 2015 ó 2017. Furthermore, value added in manufacturing has reached 6.4% of GDP in the year 2017, while the value added in wider industrial sector was nearly 25%. In the year 2016 ó 17, the manufacturing and industrial sector has contributed nearly 11% to GDP. Hence, it was a year in which higher contribution was registered as compared to earlier fiscal years. During this year, the contributions of agricultural and service sectors were 2.5% and 4% respectively. Therefore, it was for the first time that the industrial sector took the lead to drive the economy.

#### 4. RESEARCH METHODOLOGY

Mainly different literatures in line with the study topic were reviewed. In additions, the researchers undergo interviews and discussions with company experts, wholesalers and retailers of Heineken brewery, Moha beverages, Walia and Kaliti steels and cement industry (Capital and Dangote) pertaining to the effect of the pandemic on their businesses. Hence, based on the document analysis and interview conducted, the results were presented, discussed and inferences were made. The study has dealt with the trend of Industrial sector in Ethiopia with special emphasis on the manufacturing and construction sub sectors before and after the pandemic.

## 5. RESULTS AND DISCUSSION

#### 5.1 Growth and Contribution of Industry to GDP

Based on the document analysis and conducted interview, the result is presented in the following fashion. In order to reveal out the effect of COVID-19 on the manufacturing sub sector, it is better to see the contributions of Industry on GDP of the country. Here trend is taken from year 2012/13 to 2019/20. The following table 1 illustrates the industrial sector contributions to GDP and GDP growth from year 2012/13 up to 2017/18.

Table 1: The industrial sector Contributions to GDP and GDP Growth (2012/13 – 2017/18)

Industry Sector	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Contributions to GDP (in						
billions Birr)	73.9	86.5	103.7	343.9	413.8	464.4
Share in GDP (in %)	13.0	13.8	15.0	23.7	25.9	27.0
Absolute Growth	24.1	17.0	19.8	20.6	20.3	12.2
Contribution to GDP growth	2.8	2.2	2.7	3.1	4.8	3.1
Contribution in %	27.9	21.4	26.0	38.8	43.8	40.7

Source: NBE Annual Report (2017/18)

The industrial sector shows a trend of increment from year to year. As it is illustrated in the table 1, its contributions to GDP in the year 2012/13 was nearly 74(Billions in ETB) and then registered an increment of more than 464 (Billions in ETB) in the year 2017/18. Here the rate of increment was more than 627%. From this, it is possible to infer that the sector is growing fast and then taking parts in the overall economic growth of the nation.

As it is depicted on the table 1, the industrial sector contribution to GDP shows a trend of increment. Accordingly, it was 73.9, 86.5, 103.7, 343.9, 413.8 and 464.4 (in billions of Birr) in the year 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively. Pertaining to share in GDP (in %), it was 13, 13.8, 15.0, 23.7, 25.9 and 27.0 in the year 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively. Hence, it is possible to infer that the sector had shown a trend of increment from year to year. But the absolute growth was 24.1, 17.0,19.8, 20.6, 20.3 and 12.2 in the year 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively and sector's contribution to GDP growth, was 2.8, 2.2, 2.7, 3.1, 4.8 and 3.1 in the year 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively. Here it is worth to recognize that higher rate for GDP growth was registered in the year 2016/17 but dramatically it was shrunk to 3.1 in the year 2017/18. From this it is possible to infer that the sector was contracted to some extent even the year before the pandemic came into being. This might be due to the political turmoil that the country encountered in the specified year. Of course, the political instability even made the country to be a fragile. When we come to the overall contribution of the sector, it was 27.9%, 21.4%, 26%, 38.8%, 43.8% and 40.7% in the year 2012/13, 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively. Hence, generally speaking, it is possible to conclude that the industrial sector shown an incremental trend in overall contributions to GDP of the country even the share in GDP it possessed has grown to more than double which is 27% in the 2017/18 from its state of 13% in the year 2012/13.

It is also fascinating to see the trend of manufacturing and construction sub-sector specifically (as both constituted more than 90% of the industry sector). Accordingly, manufacturing sub sector growth rate was 16.6, 18.2, 18.4, 24.7 and 5.5 in the year 2013/14, 2014/15, 2015/16, 2016/17 and 2017/18 respectively. Also the construction sub- sector maintained growth rate of 23.9, 31.6, 25.0, 20.7 and 15.7 in the aforementioned successive years respectively. The share that manufacturing sub- sector had in the industry sector was 33.4, 33.0, 25.9, 26.9 and 25.3 respectively, whereas the construction sub ósector had a share of 49.9, 54.8, 69.1, 69.3 and 71.4 respectively. Hence, from this data it is possible to infer that more than 90% of industry sector was dominated by the manufacturing and construction sub sector. Even in the year 2017/18, the share of these sub-sectors reached nearly 97% pertaining to the industrial output, the manufacturing sub-sector shows an increment by 5.5% which make up nearly 25.3% of the industrial output, whereas, the construction sub-sector constituted 71.4% of the industrial output and justifies an increment of 15.7%. Therefore, whenever we deal with the industry sector, it is to mean that the manufacturing and construction sub-sector as they possessed liongs share of the industry (NBE, 2017/18). Generally speaking, despite the ups and downs, the sector is playing pivotal role in the overall economic growth of the nation.

As per national bank of Ethiopia, the contribution of industry sector to GDP has grown to 27% in 2017/18 from nearly 26% in the year 2016/17. When we see the contribution of service sector, it showed a little increment of 39.2% from 38.8% in 2016/17. But the agricultural sector showed decrease to 34.9% in the year 2017/18 from 36.3% in previous year (NBE, 2017/18). Of course, the intention of the government is to make the industry sector lead the country economy. This does not mean that the government ignores the agricultural sector, rather side by side it pays due attention in transforming agricultural sector in a way it serves as reliable source of inputs to different manufacturing industries under operations.

## 5.2 Manufacturing and Construction Sectors before COVID-19 (2018/19- 2019/20)

COVID-19 may make the global economy to fragile even decline to a state of recessions. Ethiopia is not unique to escape the clumsy challenge of the pandemic as all sectors in the economy are subject to vulnerability. Therefore, to explain its effect on manufacturing subsector, it is worth to describe the state of industry sector at normal circumstances (without the effect of covid-19). Accordingly, in the year 2018 -2019, the contributions of industrial sector to the nation economy was 526.2 Billion ETB which made it 28.1% share to GDP. When we come to the manufacturing sub of sector, it grew by 7.7% and had constituted 24.3% of the industrial output. Also, the construction sub of sector had registered a 15% expansion and 72.5% contribution to industrial output (NBE, 2018/19). From this data, it is possible to infer that both manufacturing and construction sub of sector constituted nearly 98% of the industry sector. Also, as the sector contribution to GDP increases from year to year, it adds its own impetus on the economic growth of nations.

Pertaining to labor productivity in the year 2020, it was assumed to be 8680, 44770, and 37150 (ETB) respectively in each sector of economy. Also each sector & GDP contribution was estimated based on the absolute growth rate of 3.8%, 12.6% and 11% for agriculture, industry and service sectors respectively (Degye, Tadele, Getachew and Mengistu, 2020). Therefore, from the aforementioned data it is possible to conclude that at normal circumstances keeping other factors constant; there would have been an increasing trend of growth in each sector of the economy. Specially, the industry sector growth rate is expected to be the highest in labor productivity as we compare with other sectors of economy. That means, the economy is supposed to be predicted to grow in the year 2020.

Generally speaking before the pandemic, each sectors of the economy have shown a trend of increment in the GDP contributions and labor employments. These in turn makes the country run on the right track of development.

## 5.3 The Effect of COVID-19 on Manufacturing and Construction Sectors

The effect of the pandemic is not unique to Ethiopia economy only; rather it is a global challenge as it causes a tremendous impact on incomes and jobs of the whole sectors of the business.

Taking the industry sector in general and manufacturing and construction sub- sector in particular, the pandemic has caused significant effect. As per Jobs Creation Commission (2020) study the beverage manufacturing encounters a local and global demands and then on the verge to lay off its temporary lower and mid- skilled workers. The textile, apparel and leather

manufacturing will face financial challenges due to lack of orders spanning up to June. Even the sector was suffering from slowdown of demand before lockdown. Therefore, it lay-off most lower and mid skill workers and daily laborers. Coming to construction sector, due to the pandemic, most small and medium projects cease and then daily laborers have lost their jobs.

The study by Alemayehu (2020) showed the following prediction on the manufacturing sector. The low estimate model predicts a drop of demand in textile, apparel and leather by 25%, beverage industry by 10% and construction specially, most of small and medium projects by 25%. As per medium estimate model: there will be a drop of demand of 50% in textile, apparel and leather, beverage industry 25% and 50% drop in construction. Based on high model estimates: there is a drop of demand of 55%, 90% and 90% in the beverage industry, textile, apparel and leather and construction respectively.

Alemayehu (2020) further revealed that there is a decline in GDP by 11.1% in the year 2020/21 and the last quarter of 2020. Hence, the highest decline projected to be in the industrial sector which will be 17 % shock, service is going to be shocked 15,6% and agriculture is supposed to be declined by 1.6%. This shows the high economic vulnerability of the industry due to COVID-19 compared to other sectors.

In additions, it is projected that Africa demands billions of dollars to withstand the threat of the pandemic. Of course, most nations are taking measures to contain it. Despite the efforts exerted to control the dissemination of the virus, most factories have been closed, employees are laid off, interruptions of supply chains, commercial activities, travel bans etc made the nationsø economies to a state of recession (Mehari, 2020). Therefore, it is possible to deduce that the interruptions in production result in economic hazards to the nation and to the globe in general.

Hence, from the above data, it is possible to conclude that the manufacturing sub-sector is severely affected by the pandemic. Here, it is worth to recognize that most daily laborers and semi-skilled employees are in danger as the sub-sector opens a room of employment opportunity for them.

In additions, ILO (2020) reveals that most textile manufacturing in Ethiopia are facing production declining in quarter I of 2020 due to the pandemic, their capacity utilization rate has decreased by 30% as compared to that of quarter I of 2019. Also they are obliged to cancel orders due to the disruption of the pandemic. Lack of access to raw materials, increased cost of production as partial lock down and social distancing and additional cost of PPE, hand sanitizer, transportation costs let the manufacturing firms to pay price which in turn aggravate production costs.

The effect that the pandemic causes on manufacturing and construction sub sectors is also justified by the interview conducted along with wholesalers and retailers of Heineken brewery, Moha beverages Walia and Kaliti steels and cement industry (capital and Dangote). Accordingly, most interviewees responded the clumsy challenge they encounter in the following manner.

"Their daily sales are severely affected due to partial lock down- as people movement is restricted and social distancing, the demand for their product is getting lower from time to time, due to declining in sales, they are obliged to lay- off their temporary workers and daily laborers, If the challenge continues in the future most retailers are obliged to shut down their businesses, declining of demands for their products both on global and domestic market, shortage of imported inputs both from abroad and domestic markets as travel restriction is decreed, shortage of hard currency, supply chain disruptions both in domestic and global markets, and the newly introduced tax on beverage and breweries before the pandemic affects the level of sale."

In additions, these interviewed retailers dongt have a strong financial position and are dependent on their daily sales to pay their staff and other bills that they are expected to pay. Generally speaking, from the above discussions; it is possible to infer that the manufacturing sector is in troublesome conditions. Of course, the other sectors are severely vulnerable too. But as the manufacturing and construction sector deploy more temporary and daily laborers, the level of social crisis is highly pronounced on these sub sectors than the other sectors. According to Jobs Creation Commission (2020) the pandemic makes our manufacturing and construction sector suffering with demands and supply too. For example, nowadays, the demand for textiles dropped more than 50% and turned to lay- off temporary employees who are substantial in their numbers and construction sector has already laid off temporary and daily laborers. As the number of these daily laborers is substantial in its very nature, it is possible to imagine the social crisis to be seen in urban and suburb areas. When we come to wholesale and retail business which are making their lives with the products of manufacturing and constructions such as: textile, beverages, breweries, and other construction materials like, cement, gypsum, ceramics, cables, and other utilities demand is highly affected by the partial lock down and social distancing measures. In additions, retailers encounter a drop of 65% of their turnover over the past month. Therefore, it is possible to infer that the businesses are in haphazard conditions. Unless nations take coordinated efforts in controlling the pandemic, huge devastation on economy, social and political conditions is supposed to occur.

So far stakeholders in the industrial sector have been taking measures amid COVID-19. For example, industrial parks were taking measure such as providing preventative measure to workers, repurposed their regular production into other related protective equipment, and continuing production with intensive protection measures. UNDP is also supporting manufactures in terms of supporting the health of workers by providing equipment and suppliers, awareness and providing training and psycho-social support to workers, and supply and logistics chains continue to operate (UNDP, 2020). The private sector is also responding to ease the effect of COVID-19 on industrial sector. For example, Dashen Bank announced a cut different kind of service charges and interest rates to those that are affected by Novel Corona virus including manufacturing and construct sub-sectors (Capital Ethiopia, 2020).

# 6. CONCLUSIONS AND RECOMMENDATIONS

As it is discussed in earlier paragraphs, it is obvious to conclude that most businesses in Ethiopia are suffering from loses as they fail to produce in full capacity due to the declining of demand on their products. Furthermore, they have encountered disruption in supply chain as most of them import vital inputs from abroad. Also, the limited products they produce are not saleable by domestic consumers due to declining of income that is caused by partial lock down. It is obvious to infer that whenever industries fail to produce in a full scale, it goes without saying that there would be disruption in pattern of employment as they are obliged to lay-off their workers, which then leads to social chaos. Therefore, it is a peak time for business leaders to exert efforts in managing the business to overcome the clumsy challenge that they encountered. Hence, it is worth saying to deal with crisis management. As per some studies, crises plans and crisis management (crisis leadership) play pivotal role in overcoming crisis (Saltz, 2017). Also, Bernard (2003) on his research on business environment revealed out dynamic and chaotic situations demand flexible and adaptive leadership style that gives impetus for overcoming crisis that businesses encountered.

As per Olivia and Eugene (2012) a good crisis leader exhibits the following characteristics: Coordinated, make right decisions during contingencies, goal oriented, a communicator, have emotional and mental stability, involve the team and listen/consider to other viewpoints and perspectives, accept ownership and responsibility of a contingency, prioritize tasks, possess analytical and critical thinking skills and adapt and respond to the unique aspects of crisis and changing circumstances. Furthermore, such leader displays traits that let them successfully manage the crisis that the business encountered. Hence, they should exert their efforts to detect the crisis signals. Signal detection involves deducing and understanding any warning signs of an imminent crisis. Knowing these signs can let leaders to plan a course of action in advance. Of course, the signs can include a series of seemingly unrelated events that should be taken to cope with the crisis.

Therefore, it is advantage for the leadership of the manufacturing to consider the following points. Creating a resilient organization that analyze possible risks in advance and making safety precautions; creating collaborative system within industries, that is, if the manufacturing firms make cooperative hands they could minimize the overall cost of production so that they can run on the right track. These include: sharing of facilities, making collective training of their employees together, sharing knowledge in line with their business and advocating system thinking modality in order to overcome the challenge of the day; raising awareness of stakeholders in order to share information pertaining the ongoing developments in line with the global business trends; changing the trend of production to COVID related products. For instance if textiles produce face masks and other health professional wears as the demand all over the world is highly pronounced and also beverages and breweries initiate to produce sanitizers and other detergents in order to cope with the changing world and finally consolidating their research and development wings together, there would be a room to minimize the challenge of the pandemic.

In addition, the government should undertake the following actions: Uplifting the recently introduced taxes on beverages and breweries till the pandemic ends; reserve hard currency for manufacturing wing in order to make smooth sailing of operation in line with global supply chain; provision of technical support for firms and finally postponement of taxes (VAT, Income tax, etc) till the end of the pandemic.

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