The Influence of COVID-19 on Economy and Manufacturing Companies: Overview and Statistical Study

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Abstract

The COVID-19 pandemic has elevated the level of inequality already in existence among and within countries. While the measures to contain the virus proved effective, its negative impact on the economy cannot be ignored. This systematic review highlighted the level of inequality before the COVID-19 pandemic and examine how the pandemic has interacted with some major economic indicators. This study examines the impact of COVID-19 pandemic on the manufacturing firms' business activities. It assesses the impact of the pandemic on manufacturing firms' business performance and financial stress; it also points out the innovation activities during the pandemic period. It particularly investigates the impact of the pandemic on firms' access to key intermediate inputs, product market outlet, employment dynamics, financial stress, and innovation activities. The paper also reviewed some lessons learnt from the pandemic and how countries can build a more resilient economy against future shocks and suggested some policy recommendations.

Keywords: COVID-19, economy, inequality, measures, indicators, outlook, overview.

1.0. Introduction

The world economy is slowing down as a result, and it is predicted to shrink by 3% and the global growth is projected at -4.9 percent in 2020 according to the International Monetary Fund. According to WTO statistics, the volume of world merchandise trade contracted by 3.5% in the first quarter; and it contracted by 14.3% in volume and 21% in value in the second quarter amid global lockdown due to the global pandemic.

Looking into the global trade indicators, for example, container shipping, new export order, and air traffic volumes which experience a historic fall amid COVID-19 global pandemic outbreaks. The service trade also hit hard by the outcome of the pandemic as transport and travel restrictions in many countries. The global tourism and travel business: hotels, restaurants, tour operators, and travel agencies are among who bear hardest challenge from the crisis.

The advent of the COVID-19 pandemic has negatively affected the global economy. It has claimed over 2 million lives globally and worsens the living standard of people. While the measure to contain the virus proved effective, its negative impact on the economy cannot be ignored. The World Economic Outlook report released in April 2020 by the IMF projected the economy would contrast sharply by – 3 per cent in 2020, much worse than during the 2008-09 financial crisis. The crisis has exacerbated the already existing inequality gap among and within countries. Widening inequality has significant implications for growth and macroeconomic stability; it can concentrate political and decision-making power in the hands of a few (Dabla-Norris E., et al. 2015). The economic and social fallout from the global financial crisis and the resultant headwinds to global growth and employment have heightened the attention to rising income inequality. (Dabla-Norris E., et al. 2015).

On the other hand, inequality is the state of disparity, especially in status, rights, and opportunities (UN/DESA 2015) which can impede economic growth if not managed. Inequality can be viewed from the standpoint of people's backgrounds and what they have access to. i.e., For instance, people's background/origin, e.g. (Africans, Asians) can influence what they have access to, i.e., quality education or broad-based internet access. High and sustained levels of inequality can entail high social costs; however, some degree of inequality may not be a problem as it provides the incentives for people to excel, compete, save, and invest in moving ahead in life (Dabla-Norris E., et al. 2015). Income inequality is an essential element of inequality. As found in UNDP 2017, Some groups systematically have less access to income and non-income resources than others. Women and girls are more deprived than men, and ensuring equal access to opportunities and services for women and girls would have significant positive implications for overall human development progress (UNDP 2017).

Historically, past pandemics have had a significant impact on economic inequality, although there are limited official inequality data with considerable delay and these challenges policymakers in their objective to mitigate disparities and fine-tune public policies (Aspachs O., et al. 2021).

While the pandemic has worsened the living standard of people by widening the inequality gap, i.e. some sectors (majorly contact-intensive sector) of the economy were hit hard while others experienced a boom, i.e. Information Technology Sector. However, all signals show that the global economy is on the recovery path, evidence in the IMF's projection of the world's economic growth to rebound by 6 per cent, as stated in the (IMF WEO April 2021).

2.0. Literature Review

The magnitude of the impact of the COVID-19 pandemic on inequality and economic growth compared to other past pandemics is enormous. Furceri D., et al. 2021 reviewed the effect of significant epidemics from the past two decades on income distribution, even though much smaller in scale than COVID-19. They found that major past epidemics have led to an increase in the Gini coefficient, raised the income share of higher-income deciles, and lowered the employment-to-population ratio for primary education compared to those with higher education. They provided some evidence that the distributional consequences from the COVID-19 pandemic may be more significant than those flowing from the historical pandemics and more prominent than those following typical recessions and financial crises and concluded that, in the absence of supportive policies to protect the vulnerable, the pandemic could end up exerting a significant impact on inequality.

In the same vein, Blundell. R et al. 2020 bring together evidence from various data sources and the most recent studies to describe what they know so far about the impacts of the COVID-19 crisis on inequalities across several key domains of life, to show how the crisis interact with existing inequalities along various vital dimensions, including socioeconomic status, education, age, gender, ethnicity and geography. The authors find that the deep underlying inequalities and policy challenges already in existence are crucial in understanding the complex impacts of the pandemic itself and our response to it. The crisis has the potential to exacerbate some of these pre-existing inequalities directly. They concluded that the COVID-19 pandemic has exacerbated existing inequalities (Deaton A., 2021 also supported this assertion) and brought to the fore other inequalities that were perhaps less of concern before the pandemic. Furthermore, they added that the post-COVID world could see inequalities worsening further without a well-thought-out policy response.

Schleicher, A. 2020 reviewed the impact of COVID-19 on public financing of education in OECD countries and concluded that while the long-term effects of the crisis are uncertain, he provided evidence that the pandemic may affect public spending on education as funds are diverted into the health sector. The author found that the pandemic exposed the vulnerability of each country to crisis, and each country's capacity to react effectively and efficiently in the future will hinge on governments' foresight, readiness, preparedness and commitment to the Sustainable Development Goals.

Against the widespread belief that the COVID-19 pandemic has increased global income inequality, reducing per capita incomes in developing countries than in rich countries. Deaton A., 2021 found out that rich countries experienced more deaths per head than have developing countries. Countries with more deaths saw more significant declines in income. There was thus not only no trade-off between lives and income; fewer deaths meant more income. He concluded that per capita incomes fell due to the high death rate in higher-income countries.

United Nations 2020, in its policy brief on the Impact of COVID-19 on Women, reveals that women's economic and productive lives will be affected disproportionately and differently from men. Across the globe, women earn less, save less, hold less secure jobs, are more likely to be employed in the informal sector. They have less access to social protection and are primarily single-parent households. Their capacity to absorb economic shocks is, therefore, less than that of men. Also, using data from bank records to measure economic inequality, Aspachs O., et al. 2021 also found that the economic impact of the pandemic caused a significant increase in inequality.

3.0. Inequality before the Pandemic

Equity and universal opportunities for people, in this generation and subsequent generations, to realize their full potential are central to Economic development (UNDP 2017). An economy with less inequality gap tends to thrive more than its contemporary. Much progress has been made over the years; people are more knowledgeable and have access to resources needed to support a decent standard of living; more children are going to school; incomes are higher, and more people live under democratic regimes with tremendous potential for political engagement (UNDP 2017). For instance, the number of students enrolled in secondary school education increased from 59.9% in 2000 to 75.9% in 2018, representing a 26% increase. East Asia & Pacific and Sub-Saharan Africa experienced an impressive growth rate between 2000 and 2018. In Sub-Saharan Africa, the enrollment rate increases from 25.8% to 43.2% representing 67% progress (Figure 1). While domestic general government health expenditure has also risen globally from 4.98% in 2000 to 5.87% in 2018, representing a 17.87% increase, and significantly in North America, from 5.57% in 2000 to 8.46% in 2018, representing 51.8% (Figure 2), the gain has not been equal as many people still experience deprivations in essential elements of life.

Figure 1. *Number of students enrolled in secondary school education (Source: Data Bank World Development Indicators World Bank Group and author's calculations)*

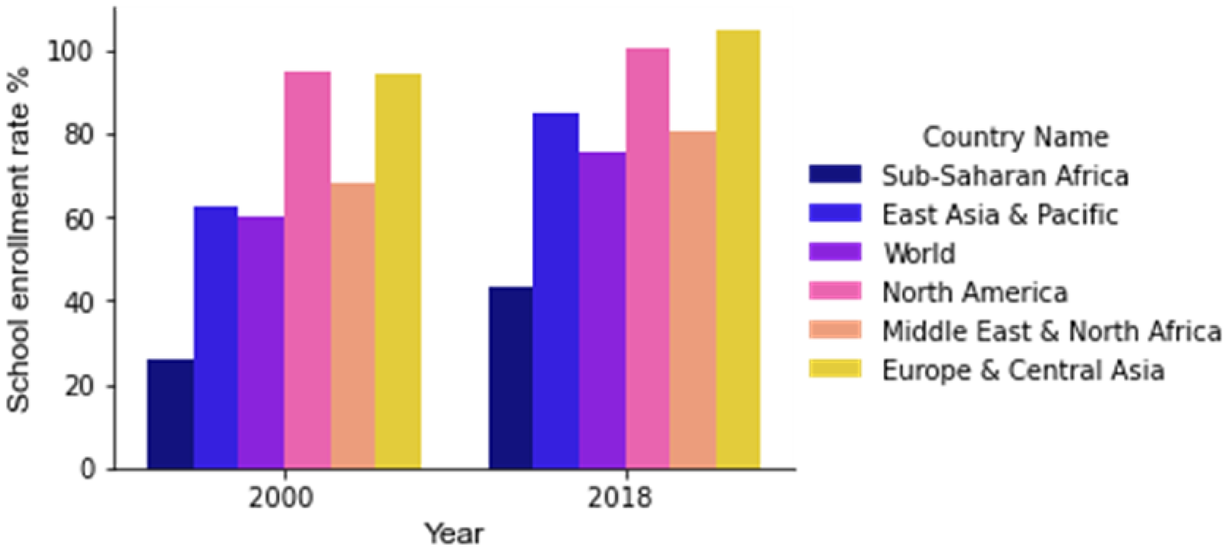
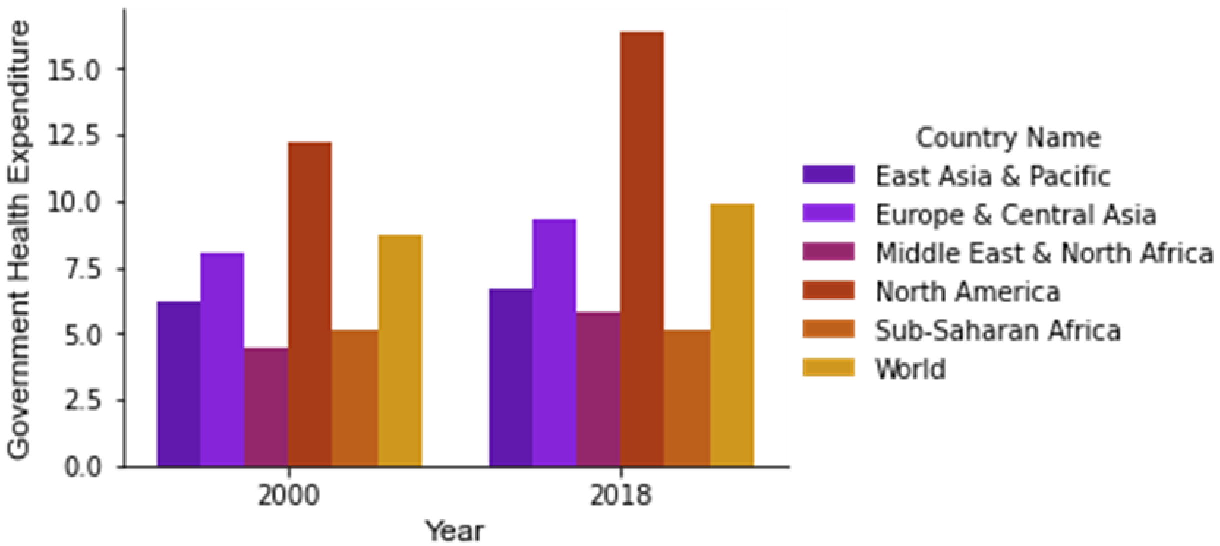
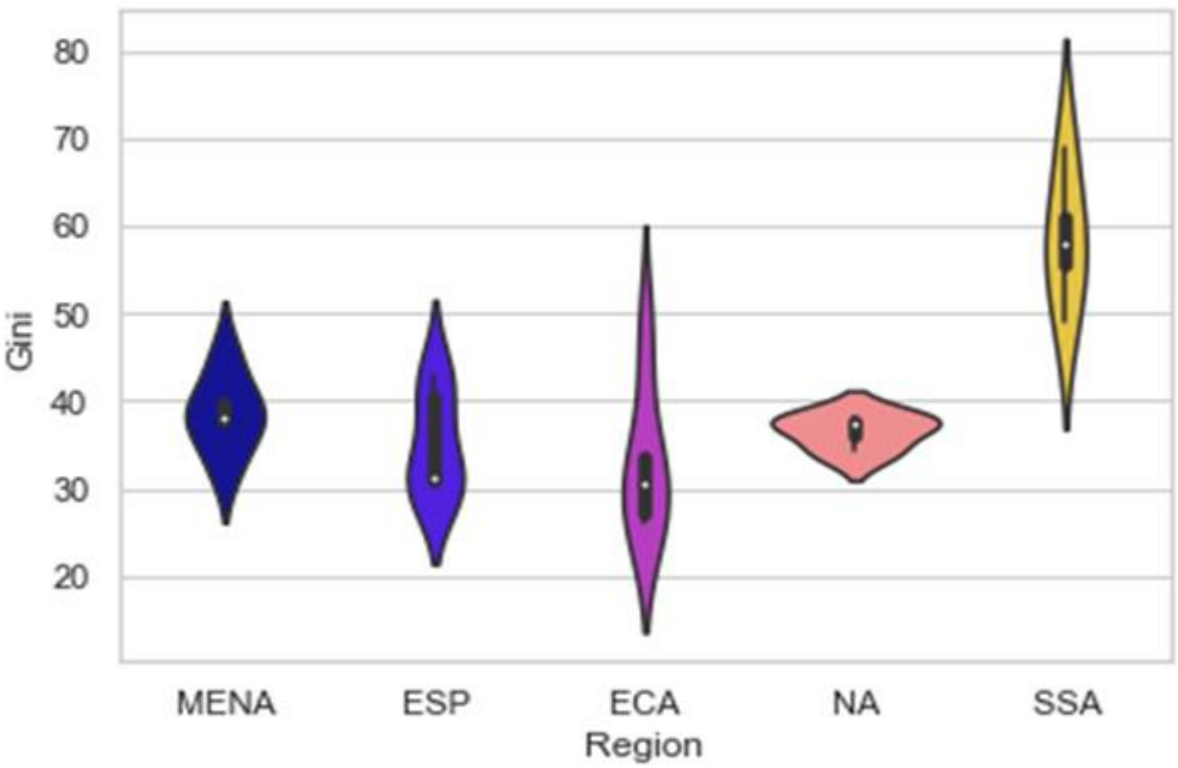


Figure 2. *Government Health Expenditure (% of GDP) (Source: Data Bank World Development Indicators, World Bank Group and author's calculations)*



Income inequality has been a major global dilemma even before the onset of the COVID-19 pandemic, although the degree defers among regions (Figure 3). Evidence from the Gini Coefficient revealed a higher income inequality in Sub-Saharan Africa with a median value of 58% compared with their counterpart. Income inequality has contributed to unequal access to good education, health and job opportunity. High-income inequality hinders economic growth as people are denied the chance to contribute due to limited available resources, hence bridging the inequality gap.

Figure 3. *Income Inequality (Source: World Income Inequality Database – WIID, and author's calculations. Note: ESP = East Asia and the Pacific; ECA = Europe and Central Asia; NA = North America; MENA = Middle East and North Africa; SSA = Sub-Saharan Africa)*

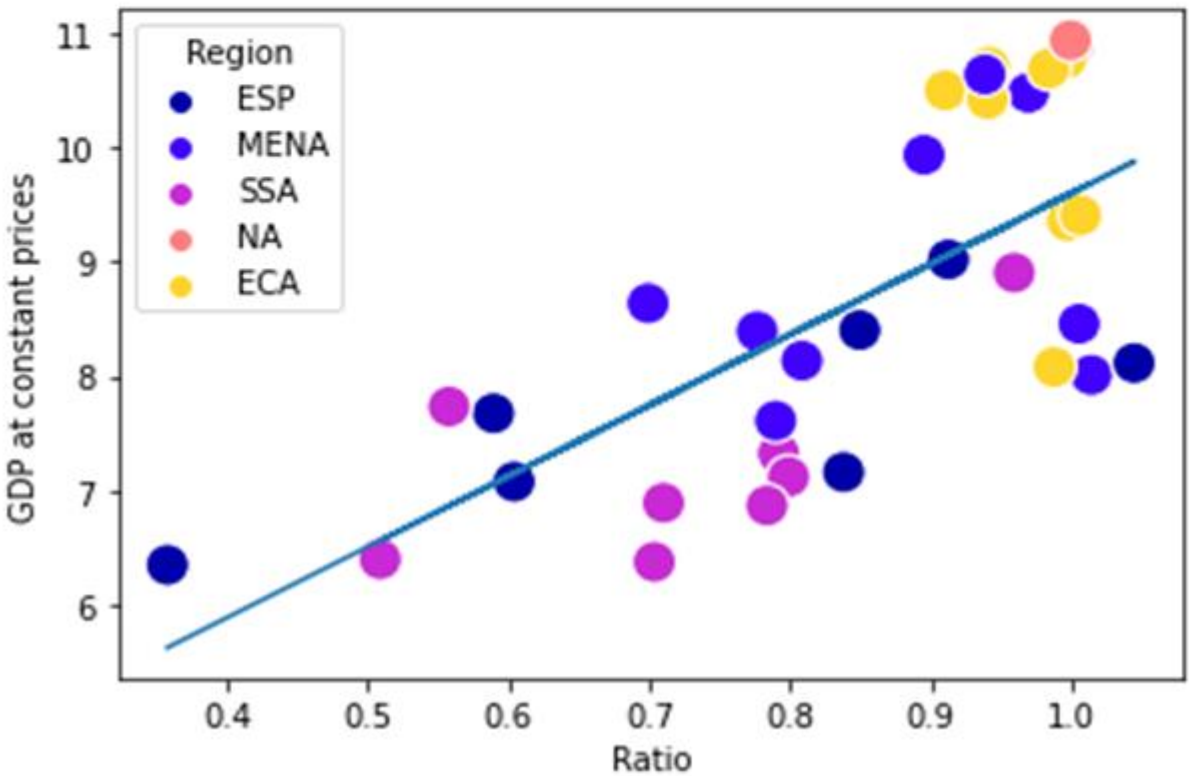


Income inequality also influences the gender wealth gap. Economies/homes with limited resources/income tend to favour men, depriving women of opportunities unduly.

In some parts of the world, before the advent of education and civilization, people believed that men were superior to women because most of the work done required physical strength. Over the years, this perception has created an inequality gap between men and women. However, despite the global advancement and evolutions, some people's ideology about gender has refused to evolve. According to S. Jayachandran 2014 Gender gaps favouring males — in education, health, personal autonomy, and more — are systematically significant in emerging countries than in rich countries.

Using World Bank's World Development Indicators (WDI) data set, (Figure 4) shows the relationship between GDP and the ratio of male to female college enrollment rates in significant regions of the world. The chart reflects a positive relationship between the GDP and the percentage of male to female college enrollment. Areas with low GDP exhibit bias against females (high ratio of male to female college enrollment) – Sub-Saharan Africa.

Figure 4. *Relationship between GDP & the ratio of male to female college enrollment (Source: World Bank World Development Indicators, United Nations Development Programme, Human Development Reports and author's calculations. Note: ESP = East Asia and the Pacific; ECA = Europe and Central Asia; NA = North America; MENA = Middle East and North Africa; SSA = Sub-Saharan Africa)*



4.0. How the COVID-19 Crisis Interact with Inequality

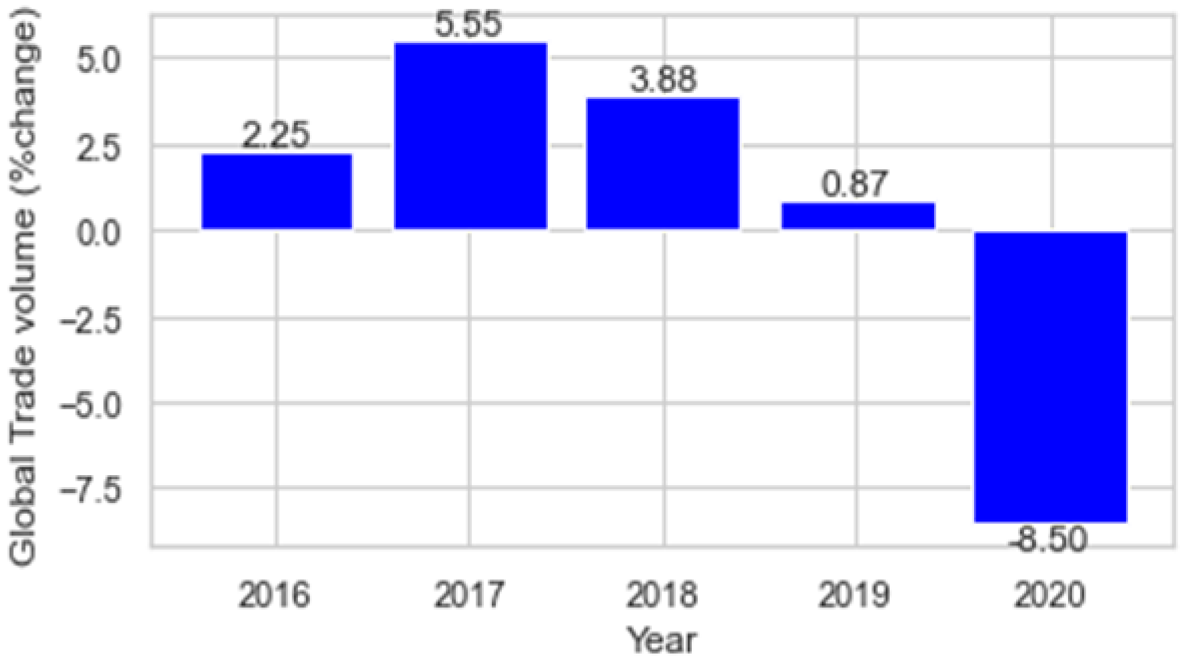
The COVID-19 crisis has undoubtedly affected the global economy by worsening the standard of living and widening the inequality gap already in existence. Although there is still much uncertainty around the crisis, the pandemic has been managed differently by countries due to pre-existing inequalities, preparedness, and the resiliency of the economy; the quality of public response, including reliance on science and expertise; citizens' trust in government guidance. In addition, the crisis has larger welfare impacts in economies with greater pre-existing inequality (Stiglitz J., 2020), (Hill R.V., and Narayan A., 2020). Unlike the global financial crisis, which was mainly an economic crisis for the developed countries, COVID-19 – Great Lockdown- resulted in a more profound global recession. (Schmidhuber J. and Qiao B., 2020)

The highly uneven impacts of the crisis are likely to widen opportunity gaps between the haves and have-nots in most societies, leading to lower social mobility and an unequal distribution of income and wealth (Hill V. & Narayan A., 2020). Income distribution is essential for economic growth. Previous studies have found that the COVID19 pandemic has exacerbated existing inequalities and the absence of supportive policies to protect the vulnerable; the pandemic could end up exerting a significant impact on inequality (Furceri D., et al. 2021, Aspachs O., et al., 2021). Developing countries have suffered the hit of the pandemic more in terms of poverty and less in terms of mortality when compared with developed countries (Decerf et al. 2020 as seen in Deaton A., 2021). The interaction of the crisis with some significant economic indicators might signal increased inequality.

4.1. Disruption to the Supply and Demand Chain

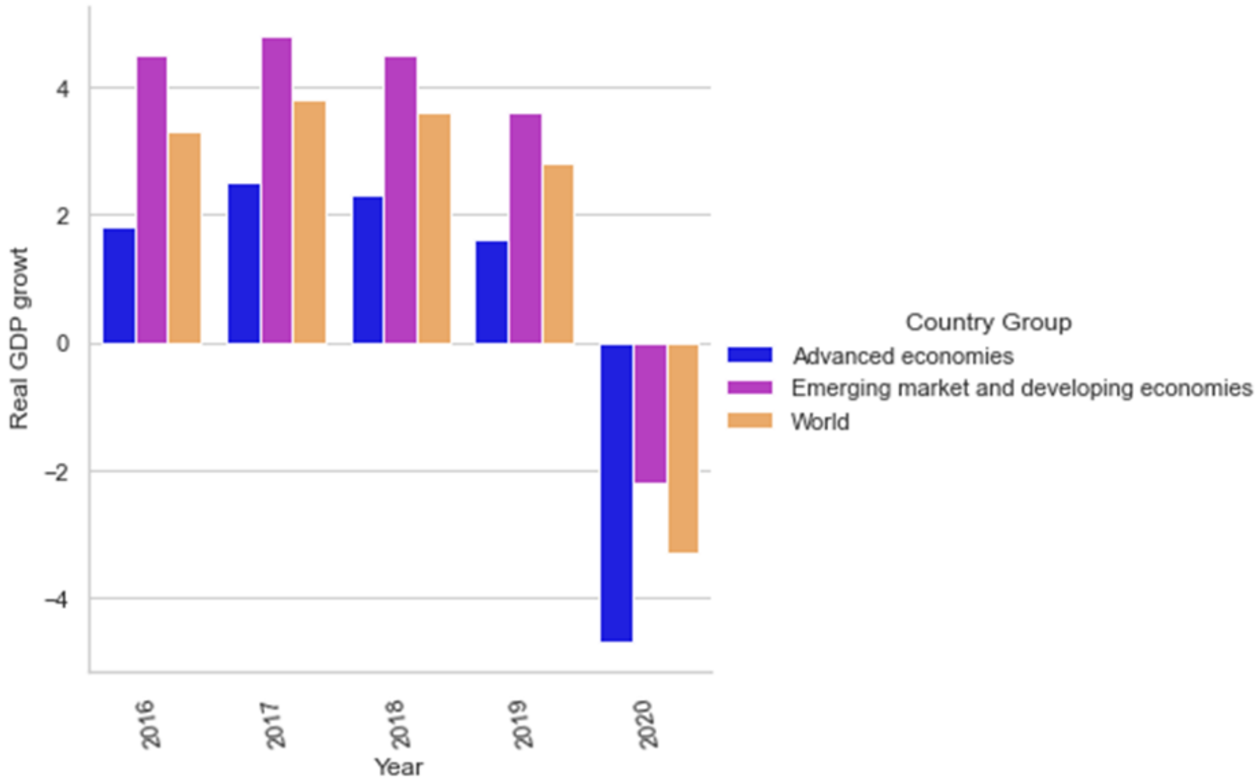
One of the crisis's multiple impacts is the disruption to the supply and demand chain - an economic indicator (Figure 5) due to the mitigation measures such as - social distancing, closure of non-essential business - introduced to curb the spread of the virus. While authorities imposed restrictions, consumers also decreased their use of some unessential services. Hence, the pandemic combines aspects of supply and demand shocks by reducing the economy's capacity to produce goods and services at given prices and consumers' ability to purchase the goods and services produced at given prices (Brinca P., et al. 2020). COVID-19 has shown that businesses are interconnected (Xu Z., et al., 2020).

Figure 5. *Global Trade volume of goods and services (% change) (Source: IMF World Economic Outlook Report April 2021 and author's calculations.)*



As stated in (IMF WEO April 2021), the resultant effect on global growth is devasting; virtually all world countries experienced a fall in GDP (Figure 6) in 2020, causing a trickle-down effect, especially on countries/households with low income.

Figure 6. *Real GDP growth (Annual percent change) (Source: IMF data mapper and author's calculations.)*



4.2. High Global Debt

Figure 7. *General government primary net lending/borrowing (% of GDP) (Source: IMF WEO April 2021 and Authors calculations)*

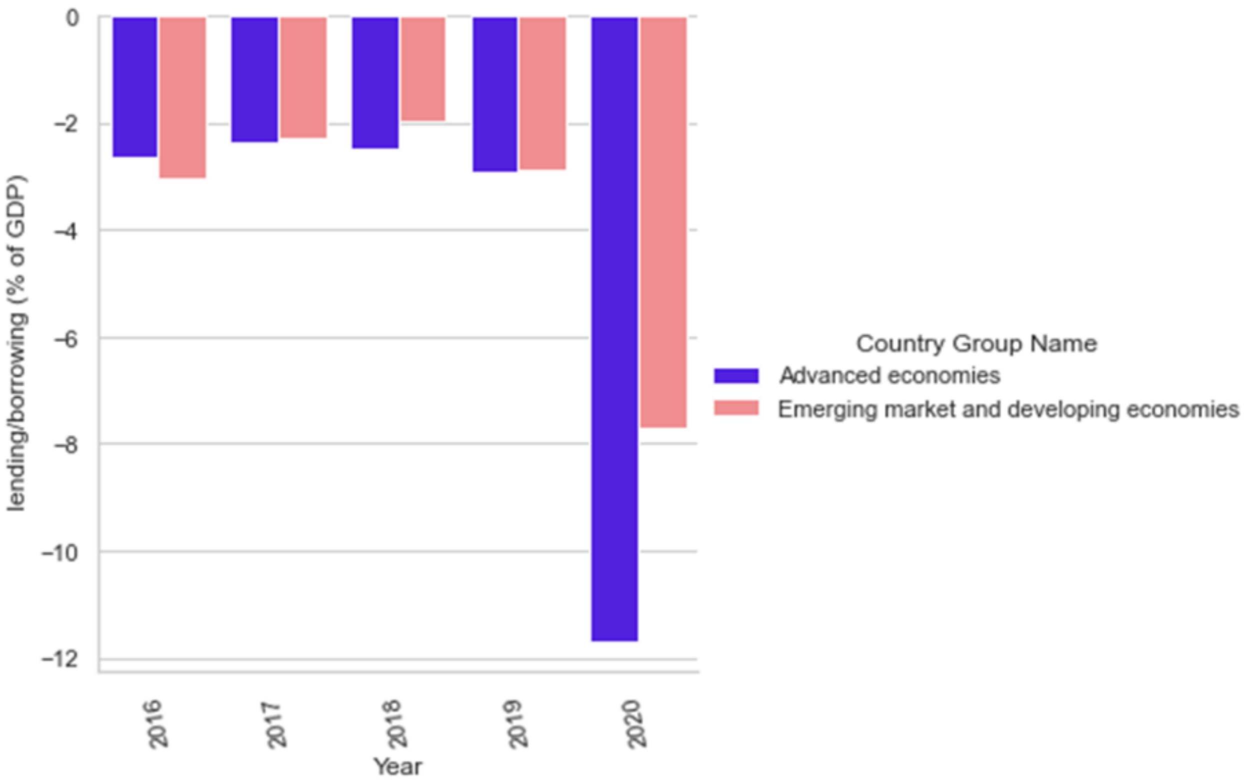
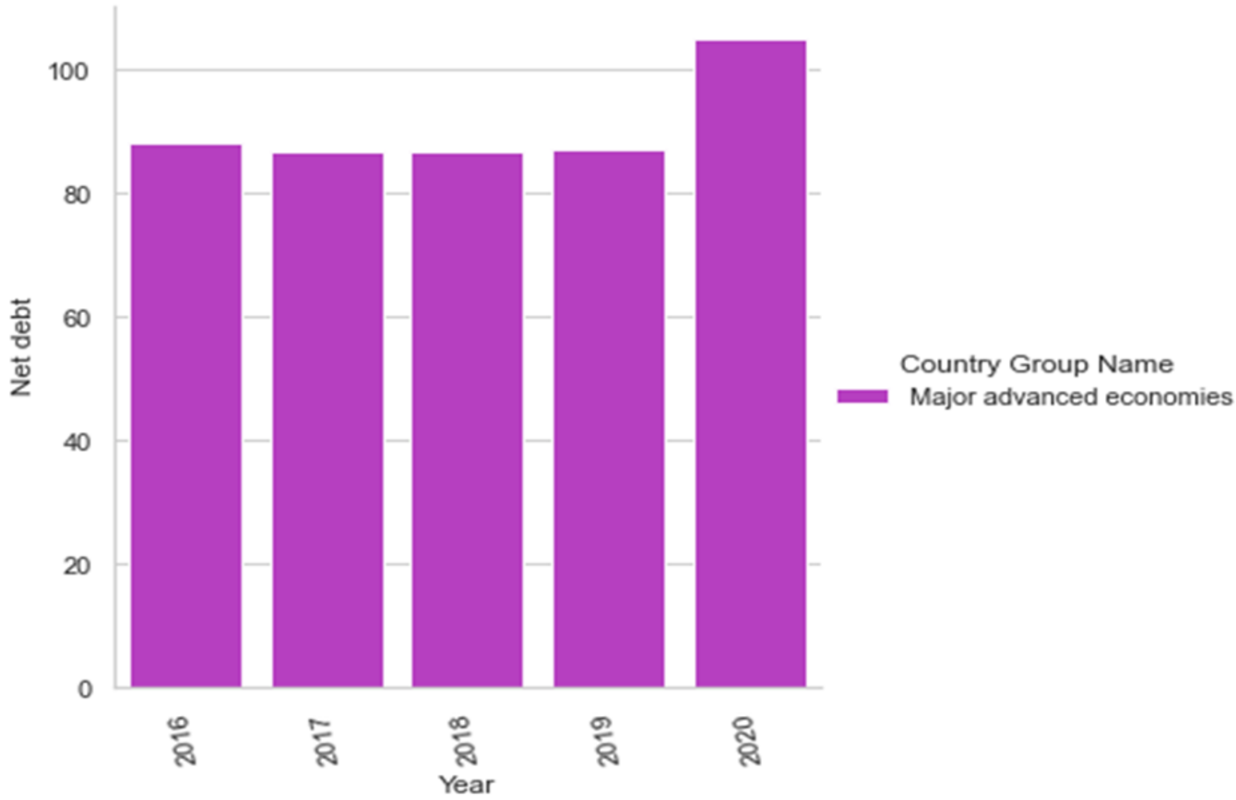


Figure 8. *General government net debt in MAE (% of GDP) (Source: IMF WEO April 2021 and Authors calculations)*



With existing high global debt of almost 60% of GDP by 2019 before the onset of the pandemic, most countries entered the COVID-19 crisis in a weaker position (WHO 2020). General government spending as a share of GDP increased globally in 2020, financed by rising deficits and debt levels, primarily to fund the emergency response to COVID-19 and implement countercyclical stimulus and social protection policies (WHO 2020).

Many countries are faced with the dilemma of managing high public debt, supporting the high financing needs, and containing the virus (IMF FSR April 2021), hence the drastic increase in government primary net lending/borrowing and debt levels in 2020 (Figure 7 & 8).

The pandemic has elevated the financial inequality among countries as countries struggled to meet the high expenses required to contain the virus and protect livelihood in the face of dwindling revenue. Countries with solid fundamentals access the global financial market, improving their financial conditions, while countries with weak fundamentals were restricted. Although, the fund providers (i.e., financial institutions) showed remarkable resilience thanks to greater support by the G20 reforms (FSB 2021).

Depending on the buffers countries have built over the years, the significantly increased debt levels can increase the inequality gap within and among countries if not adequately managed. Countries must ensure the sustainability of government debt and effective and efficient utilization of the same to bring about the desired growth.

4.3. High Unemployment Rate

Due to the disruption in the distribution chain, the employment level dropped drastically with more emphasis on the contact-intensive sector - Education Sector, Aviation Sector, etc. - which is majorly dominated by women. The severe impact on the labour market was fast; the unemployment rate rose in almost all the countries, i.e. in the United States of America, the unemployment rate increased from 3.6 in 2019 to 8.0 in 2020 (Figures 9). Evidence revealed that more women lost their jobs during the COVID-19 crisis (Figure 10).

Figure 9. *Unemployment Rate in Major Advanced Countries (Source: OECD Data and author's calculations. Note: JPN = Japan; DEU = Germany; USA = United States of America; GBR = United Kingdom; CAN = Canada, FRA = France, ITA = Italy)*

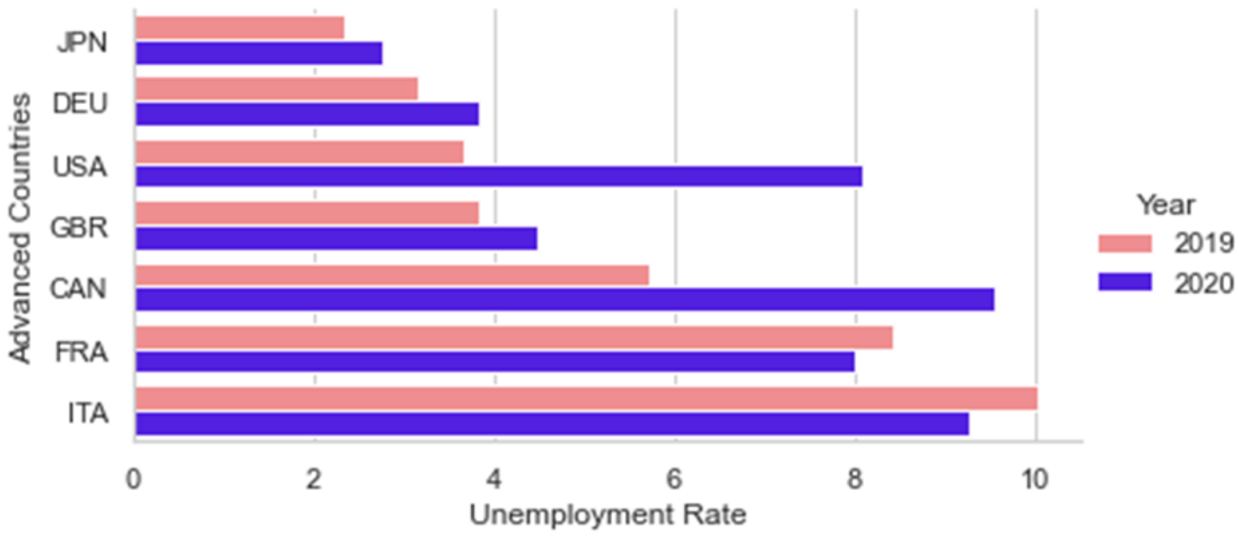
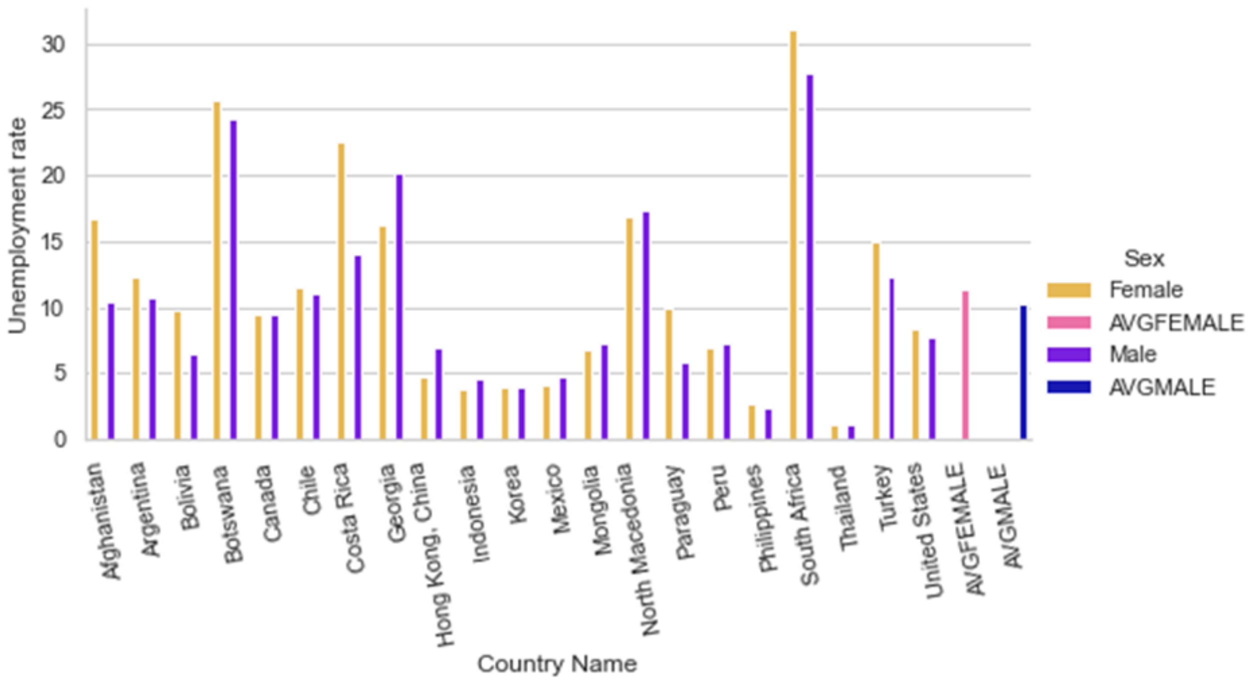


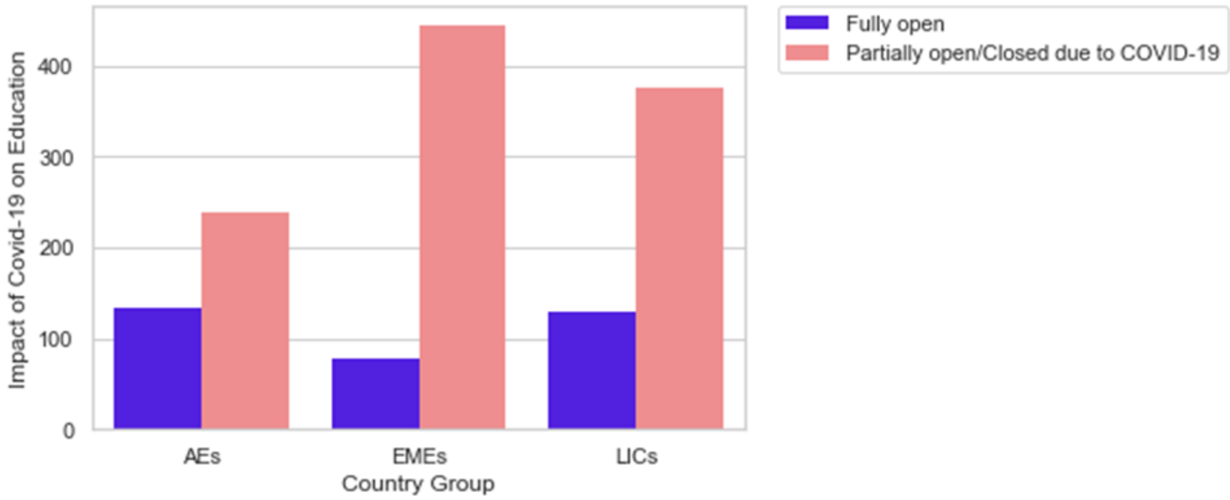
Figure 10. *Unemployment rate Female Vs Male (Source: International Labour Organization (ILO) and author's calculations.)*



4.4. Access to Quality Education

The crisis also influences people's access to quality education (Figure 11). The level of education affects the choice of occupations and income level. Those that lost their job due to pandemic are mostly the ones with a low level of education. Those who are better educated can better switch sectors and types of jobs than those who are less well educated (Hill R.V., Narayan A., 2020).

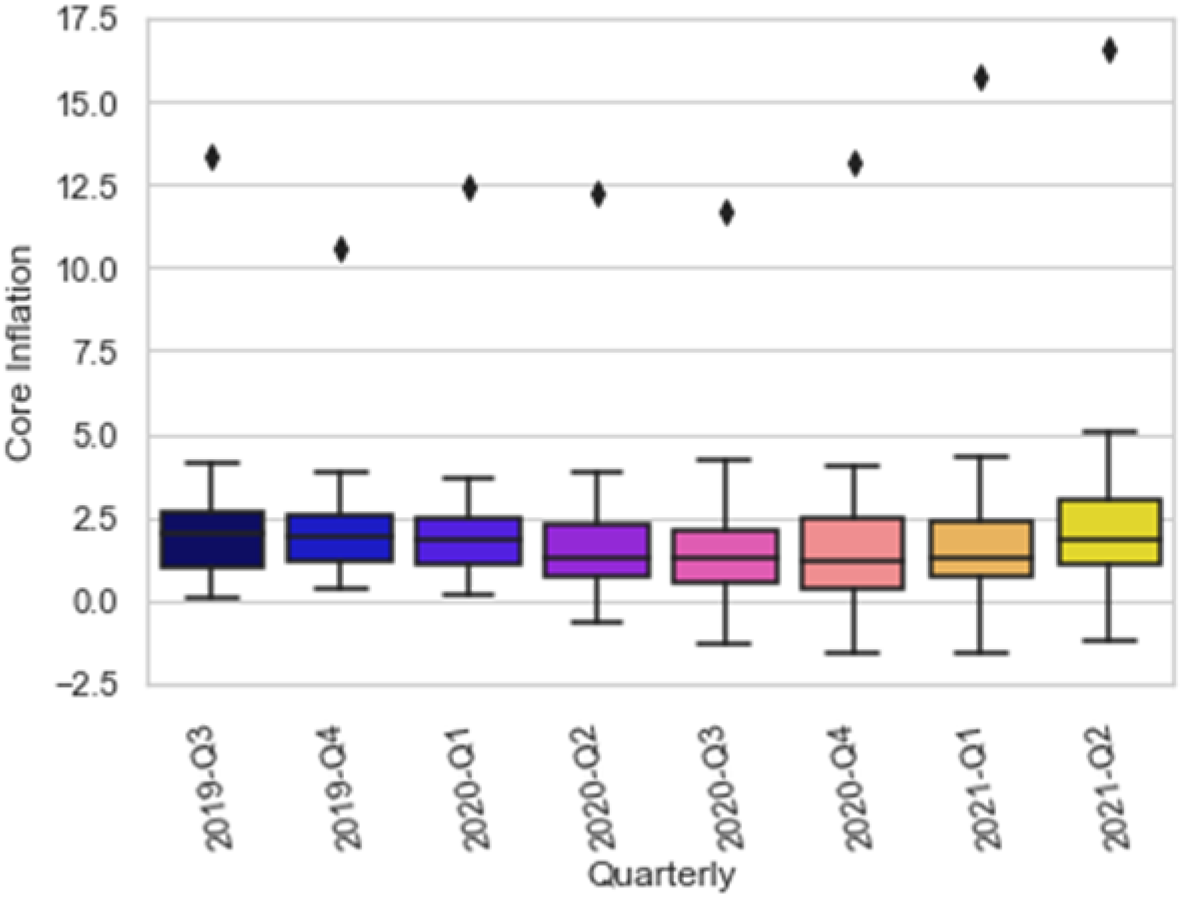
***Figure 11**. Impact of COVID-19 on Education (Source: UNESCO Institute for statistics 2020 and author's calculations)*



4.5. Inflation Pressures

At the onset of the crisis, inflationary pressures remained low in most advanced countries (Figure 12) except for some emerging markets and developing economies. While the crisis last, economies start to experience an accelerated inflation rate (especially from the last quarter of 2020). This inflationary pressure could be attributed to a mismatch of demand and supply, currency devaluation/depreciation and expansionary monetary policy (IMF WEO, July 2021). Inflationary pressure must be carefully managed to discourage the widening inequality gap.

***Figure 12.** Core Inflation (Source: Organisation for Economic Co-operation and Development (OECD), 44 OECD Countries and author's calculations.)*



4.0. Conclusion

The impact of COVID-19 pandemic on small, medium, and large scale manufacturing firms couldn't be something we ignore. To assess the impact of the pandemic, a sample of a manufactured firm located in Bahir-Dar is surveyed through telephone interviews with key personnel in the firm. The survey was designed to solicit important business information which could be affected by the pandemic. Business information such as access to raw materials, cost of production and sales; firms employment; firms financial stress such as loan repayment, salary expense and rent expense; innovation activities; institutional support related to pandemic. Firms of different sizes (Small, Medium, and Large) and from different sectors (Textiles, Wood, Metal, Chemical and Construction Materials) are incorporated. Based on a survey sample of 56 firms and taking key indicators, we assess the impact of the pandemic.

From our survey result we found that related to pandemic most of firms face difficulty in accessing key raw materials principally inputs from foreign sources which is partly related to travel restriction related to pandemic in importing countries, and other is foreign exchange shortage and rationing in banks to prioritize items important to fight the pandemic itself. Firms produce far below their capacity and sales become minimal except few firms' production line matches with COVID-19 essentials. Exporter firms report that they halt shipping their exports to the rest of the world as lockdowns and transportation restrictions in addition to demand cuts.

Firms also report that they canceled employment promotion and new employment plans as production and sales are declined. They layoff temporary employees; firms retain employees who are challenged related to salary payment. Firms also face financial stress related to loan repayment. The pandemic also affects the innovation activities of firms which is mainly related to difficulty in accessing key inputs and planned product improvement activities, except few firms' report they engage in product improvement activities. Regarding institutional support firms report no business support except some in wood based medium scale firms report they have received notice on extension of loan repayment period and small scale textiles report they benefited from partially lifted rent payment on sheds.

Therefore, in order to survive, firms need to design outputs relevant to pandemic prevention such as chemical and textiles and other market oriented products. Moreover, firms need to use technologies and engage themselves in innovation activities to easily reach customers and access inputs. The government also shall give attention and facilitate importing of key raw materials as well as exporting to encourage firms to keep firms on track. These will help firms to retain employees as well as upgrade their manufacturing to the next higher level. Safety measures and guidelines should be implemented in each workstation and sale spots.

Government also continues engaging in infrastructural development programs hence stimulating the activities of the manufacturing sector and helping them to revive. Government also shall analyze the status of firms further and special attention is required in small sized firms and recommends them to the financial institutions where they can access capital to mitigate the consequences of the pandemic.

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