Impact of COVID-19 on Light Manufacturing in the East African Community

Godfrey Walakira

***Working Paper* - COVID-19_017**

AFRICAN ECONOMIC RESEARCH CONSORTIUM
CONSORTIUM POUR LA RECHERCHE ÉCONOMIQUE EN AFRIQUE

Bringing Rigour and Evidence to Economic Policy Making in Africa

Impact of COVID-19 on Light Manufacturing in the East African Community

By

Godfrey Walakira

AERC Working Paper - COVID-19_017
African Economic Research Consortium, Nairobi
September 2021

THIS RESEARCH STUDY was supported by a grant from the African Economic Research Consortium. The findings, opinions and recommendations are those of the author, however, and do not necessarily reflect the views of the Consortium, its individual members or the AERC Secretariat.

Published by: The African Economic Research Consortium
P.O. Box 62882 - City Square
Nairobi 00200, Kenya

Contents

List of tables

List of figures

List of abbreviatons and acronyms

ADB	African Development Bank
AERC	Africa Economic Research Consortium
AfCFTA	Africa Continental Free Trade Area
BMGF	Bill and Melinda Gates Foundation
CoBAMS	College of Business and Management Services
COMESA	Common Market for Eastern and Southern Africa
COVID-19	Coronavirus Disease 2019
EABC	East African Business Council
EAC	East African Community
Frw	Rwanda Francs
GDP	Gross Domestic Product
ILO	International Labour Organization
IMF	International Monetary Fund
IPA	Innovations for Poverty Action
ITC	International Trade Centre
KAM	Kenya Association of Manufacturers
Ksh	Kenya Shilling
MSMEs	Micro, Small and Medium Enterprises
NISR	National Institute of Statistics Rwanda
NSSF	National Social Security Fund
NTBs	Non-Tariff Barriers
PAYE	Pay As You Earn
PPE	Personal Protective Equipment
PWC	PricewaterhouseCoopers
RECs	Regional Economic Communities
SKED	Skills for Trade and Economic Diversification
SMR	Statutory Minimum Reserves
SOPs	Standard Operating Procedures
SPS	Sanitary and Phytosanitary
UNCDF	United Nations Capital Development Fund
UNCOMTRADE	United Nations International Trade Statistics Database
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa

URA	Uganda Revenue Authority
USD	United States Dollars
VAT	Value Added Tax
WHO	World Health Organization
WTO	World Trade Organization

Acknowledgements

This study report would not have been possible without the support from the leadership of the East African Business Council (EABC), the African Economic Research Consortium (AERC), and funding from the Bill and Melinda Gates Foundation.

The report was produced by Godfrey Walakira under the guidance of the AERC team led by Dr. Anthony Mveyange and Ms. Laura Naliaka, and the EABC Team led by Mr. Geoffrey Kamanzi.

I appreciate the effective support from Mr. Brian Kimeu of EABC in coordinating the responses from the Kenya manufacturers and Mr. Zephania Shadi of EABC in coordinating responses from Tanzania manufacturers.

I also gratefully acknowledge the financial support from the Bill and Melinda Gates Foundation.

Executive summary

The measures introduced by the EAC governments to control COVID-19 pandemic have managed to supress the spread of infections; and in comparison with the developed countries, the EAC economies have relatively been resilient. The study report provides an assessment of the impact of COVID-19 on light manufacturing within the EAC.

The methodology mainly relied on two main sources of information, that is, primary and secondary data. Information from national sources and already completed studies relating to the impact of COVID-19 on light manufacturing were used to address the shortcomings of non-response from the primary sources. The key findings of the report are highlighted as follows.

The EAC economies of Kenya, Rwanda and Uganda contracted in the second and third quarters of 2020, and the economy of Tanzania grew above 4% in the first three quarters of 2020.

The containment measures implemented in the second quarter of 2020, as well as restriction of movements, suppressed aggregate demand for light manufacturing in the early stages of lockdown (from March to June 2020). The easing of restrictions among the EAC countries in August 2020 showed positive signs of rebound in the manufacturing sector, but not to the levels before COVID-19 Pandemic.

The negative effects experienced by light manufacturers in the second quarter of 2020 in all the EAC countries were mainly the reduction in production output for manufacturers that were not producing essential items; while for essential products manufacturers, factories continued producing and industries diversified into producing the necessary personal protective equipment {PPE} like protective gears, sanitizers, face masks, and ventilators.

Additional effects included financial distress to the manufacturers, liquidity and cash flows to meet their fixed and overhead costs, redundancy in the workforce where some employees were laid off, salary cuts and others went on leave without pay, and disruption of supply chains that limited the companies' ability to source raw materials and secure markets for their outputs.

Company innovation into digitalization and use of e-commerce improved some manufacturer's distribution networks and uptake of products during the restriction of movements and lockdown.

Impact on trade of manufactured products varied, that is, in the early stages of containment measures that were restrictive, export oriented companies saw a decline

in their exports and sourcing of raw materials for production remained a challenge.

The recovery programmes were developed to revive the most hit sectors of the economy, including manufacturing. The recovery solutions seemed to be about short-term fixes; but for the sustainability of the manufacturing sector, economic measures should look beyond COVID-19. Economic recovery in the manufacturing sector should aim at upgrading businesses to withstand future shocks. The policy options to boost and stimulate the recovery of light manufacturing within the EAC are broadly in the following areas:

I. EABC, in coordination with national chapters, should spearhead the development a private sector led EAC recovery/rebound strategy that includes the main private sector needs and requirements for production efficiency.

II. To boost productivity and operation efficiency of manufacturing companies, governments should promote and increase uptake of locally manufactured products in government projects and programmes.

III. With outstanding private arears with government, governments should process letters of credit to local manufacturers indicating the debt obligation and promise of payment and can act as instruments of financial guarantee to the private sector.

IV. Extension of tax relief to the end of June 2021 and governments should fast track clearance of VAT refunds to increase manufacturers' liquidity and cash flows.

V. The private sector should engage in the negotiations of eliminating the existing non-tariff barriers (NTBs); EABC, in coordination with national chapters, should engage at bilateral private to private level to identify and coordinate with their respective governments the elimination mechanism.

VI. With the new variants of COVID-19 mutating in the world, the crisis continues with some countries entering the third wave, while in EAC, the second wave is expected. EAC manufacturing companies must navigate through by implementing risk mitigation strategies to minimize the looming recessions and slowdowns that may result from second and third waves of the COVID-19 pandemic.

1. Introduction

Overview of the impact of COVID-19 on light manufacturing in the EAC

As the world grapples with the coronavirus, public health and safety of human life is priority of every country. The preventative and containment measures such as factory closures in China in the early stages of pandemic mainly in March and April 2020, created a lot uncertainty on the global economy. China is the second biggest economy in the world and makes up a third of all manufacturing globally, and it is the world's largest exporter of goods (PWC, 2020).

China's rising importance in the global economy is not related to only its status as a manufacturer and exporter of consumer products; China has become the main supplier of intermediate inputs for manufacturing companies abroad. As of today, about 20% of global trade in manufacturing of intermediate products originates in China—up from 4% in 2002 (UNCTAD, 2020).

Several studies are evolving in different disciplines to start documenting the COVID-19 impacts; on the specific sectoral impacts, study on Africa are minimal with the exception of those in the medical health systems (e.g., Nkengasong & Mankoula, 2020; Valavan & Meyer, 2020).

Studies on Africa focus mainly on the existing healthcare system to withstand the pressure from the pandemic in terms of inadequate surveillance and laboratory capacity, scarcity of public health human resources, and limited financial resources (Kapata et al, 2020. Similarly, other studies argue that Africa is the most affected because of the existing dense traffic between China and Africa (Valavan & Meyer, 2020).

Clearly, despite a mixture in the relative effects of COVID-19 on Africa, there are few individual case studies documenting specific policy response measures each country is acting to deal with short-term and long-term effects of the COVID-19 outbreaks since was declared on 30th January 2020 to be a public health emergency of international concern (Sohrabi et al., 2020). This study is among the first ones to contribute to the specific sectoral investigations on the impact of COVID-19.

Purpose of the assignment

This study was undertaken to assess the impact of COVID-19 on light manufacturing (production/processing, distribution, and export) in the EAC, and was funded by the EABC-BMGF in collaboration with AERC. The purpose of the study is to support the EABC to assess the impact of COVID-19 on light manufacturing in the EAC, generate policy options that the EAC Partner States should adopt to protect supply chains from COVID-19 disruptions, and the mitigation of future pandemics.

Key justification of the study

The measures/interventions implemented by the EAC Partner States and the rest of the world to control the spread of COVID-19 have become NTBs that constrain the smooth flow of goods and services, industrial productivity, and movement of people across the EAC borders. The implemented border measures have increased the time to clear goods and the cost of production, thus affecting industrial productivity and market penetration for the manufactured output.

The manufacturing sector is amongst the sectors that have been adversely impacted by COVID-19. The East African Business Council (EABC) is concerned with the disruptions and the impact on the manufacturing sustainability and industrial competitiveness within the region arising from the associated increased costs of doing business. The study is expected to:

- Assess the impact of COVID-19 on light manufacturing in the EAC (not limited to: sourcing of raw materials, exports, production, processing, distribution, etc.);
- Generate policy options that the EAC Partner States should adopt to protect supply chains from COVID-19 disruptions;
- Propose recommendations for the manufacturing sector in the EAC to mitigate future pandemics; and
- Develop a policy brief arising out of this study.

2. Understanding of the context

Background and current status

The world is currently grappling with the COVID-19 pandemic, which was first reported in China in December 2019 but has since spread to virtually all countries in the world. In some countries, people are dying of the disease in thousands on a daily basis. A number of vaccines have been developed but are still limited to developed countries. In Africa, the level of COVID-19 vaccination is low compared to the developed countries. The WHO Regional Office statement made on 8th April 2021[1] indicated that less than 2% of the 690 million COVID-19 vaccine doses administered by end of March globally were in Africa. Forty-five African countries had received the vaccines, of which 43 had begun vaccinations.

The World Health Organization (WHO) declared the COVID-19 outbreak as a pandemic on March 11, 2020. As a result of border closures and other pandemic restrictions, economic decline became global. US industrial production recorded its biggest monthly decline since the end of World War II, while business activity across the Eurozone collapsed to a record low in March 2020 (Badkar & Greeley, 2020). COVID-19 crisis continues and now entering into the third wave and is a rapidly evolving phenomenon; available evidence shows that the manufacturing response to the disruption has been largely reactive and uncoordinated (Taleb et al., 2020). Okechukwu et al. (2020) in their cross-country study on the impact of COVID-19 on manufacturing across the regions of Europe, Africa, North America, South America and Asia, observed that many manufacturing firms had repurposed during the pandemic. They further observed that in many manufacturing firms, operations have either continued remotely or were constrained by the new health guidelines, whether working at full or limited capacity.

The International Monetary Fund (IMF) World Economic Outlook report of January 2021, posted a positive outlook of the global economic recovery in 2021 and 2022 with the caution resulting from the renewed waves and new variant of the virus that may negate the efforts of the recent vaccine approvals. Amid exceptional uncertainty, the global economy is projected to grow 5.5% in 2021 and 4.2% in 2022. The projected growth recovery this year follows a severe collapse in 2020 that has had acute adverse impacts on women, youth, the poor, the informally employed, and those who work in contact-intensive sectors. The global growth contraction for 2020 is estimated at

-3.5%, 0.9 percentage point higher than projected in the previous forecast (reflecting stronger-than-expected momentum in the second half of 2020).

As a measure to curb the spread of COVID-19, most countries across the globe went into partial or full lockdowns that affected the key drivers of the economy that included transport, manufacturing, distribution and service delivery, and in some instances private transport banned, shopping centres and malls closed, markets closed, and a general scale down of most public services (IMF).[2]

According to the outgoing Secretary General of UNCTAD Dr. Mukhisa Kituyi, widespread border closures, travel restrictions and shelter-in-place policies that economies adopted early in the pandemic to slow down the global contagion disrupted productive activities, with long-term economic consequences. Cross-border supply value chains were disrupted, and there was significant reduction in the demand for goods and a slump in services. Businesses responded by cutting wages, furloughing or laying off workers. Consequently, unemployment rates skyrocketed, and the volume of global trade fell, with forecasts indicating a plunge of between 7% and 9% in 2020. This would make this pandemic the worst recession since the Great Depression and far worse than the global financial crisis of 2009.[3]

The impact permeates through to all those involved in the trade and manufacturing sectors; these include the luggage carriers, small cross-border women traders, subsistence farmers, mobile money operators, and industrialists, among others.

Overview of COVID-19 pandemic impact to the East African Community countries

In the effort to manage the spread of COVID-19 pandemic, the East African Partner States have put in place control measures that restrict public and social gatherings, regulate public and private transport, closed borders to international arrivals and departures, social distancing, scaling down public services, and regulating inbound and outbound cargo movement.

The containment measures implemented by the EAC countries have controlled the infections in the population, as per mid-march 2021, the WHO COVID-19 cumulative statistics infections by country were as follows: Burundi (2,563), Kenya (117,535), Rwanda (20,551), Uganda (40,625), and Tanzania[4] (509).

The COVID-19 pandemic affected the East African economies due to the reliance and connectivity to the global economy in terms of tourism dependency, sourcing of inputs for production that include raw materials, capital goods and intermediate goods from Asia and Europe. Computed EAC statistics from UNCOMTRADE for the aggregated inputs (raw materials, capital goods and intermediate goods) from China averaged US$4.8 billion per annum from 2015 to 2018, while from the EU amounted to US$2.8 billion. In terms of the service export statistics as computed from the ITC Trademap service database for EAC in the sectors of travel from 2016 to 2018, the average was US$4.5 billion, while transport exports amounted to US$1.29 billion per annum from 2015 to 2017.

All the EAC countries level of industrialization is dominated by light manufacturing that is mainly in the categories of: the manufacture of food products and beverages; apparel and the dressing and dyeing of fur; wood and wood products; luggage and the tanning and dressing of leather; and fabricated metal products. The competitiveness of EAC's light manufacturing industry continues to be undermined by the costs of importing and exporting intermediate inputs of both goods and services. These challenges, exacerbated by the ongoing COVID-19 pandemic that has disrupted regional and global value chains, presents a hurdle for EAC's industries, more so the MSME players.

EAC manufacturing, with its current contribution of 9.7% to regional GDP with a projection of 25% by 2032, is one of the critical sectors that are being impacted by this pandemic in terms of sourcing of raw materials, intermediate and capital goods from countries that have been heavily hit by the outbreak of COVID-19.

Studying Kenya as an economic power house of the EAC, directional trade statistics from Kenya National Bureau of Statistics indicate a sharp decline in both imports and re-exports/intra-regional trade, with a dramatic fall in Kenyan exports to fellow EAC member states (Uganda, Tanzania and Rwanda). Kenyan data up to the end of May 2020 captures the period when the negative impacts of the crisis on trade and economic activity started to become evident. Kenya is also responsible for more than half of manufacturing value added produced by the EAC (Mold, 2017). Kenya imports declined sharply from January to March 2020 compared to imports of the same period of the previous year. Such declines may be associated with delayed supply side shock. More concerning in the prospects of long-term economic growth is the sharp contraction of imports of machinery and other capital equipment, which in the sixth months between November 2019 and May 2020 declined by more than half.

During the crisis, there have been several warnings about the serious disruption to maritime trade (Kituyi, 2020), with Heiland et al. (2020) highlighting a global decline of 29% in the departure of container ships in the month of April. Taking the experience of the Port of Mombasa (Kenya's principal port, and consequently quite important for the Northern Corridor countries in the East African region), the disruption in cargo for East Africa may be less than the global average but is still serious. The overall level of activity, however, declined by 11.4% in terms of cargo tonnage over the period from March to May 2020 (Andrew & Anthony, 2020).

On a positive note, reports indicate that there are new developments that have emerged out of this crisis as some manufacturers have repurposed their production lines to produce the much-needed essential items such as face masks, sanitizers, and personal protective equipment (PPE).

The EAC macroeconomic environment

The estimates of the total population of EAC Partner States increased from 175 million in 2016 to over 190 million people by 2019, while the total GDP at current prices increased from US$159.7 billion in 2016 to US$207.21 billion in 2019. The EAC average inflation rate reduced from 7.41% to 1.92%, and the lending interest rates reduced marginally from 21.98% to 20.51% (Table 1).

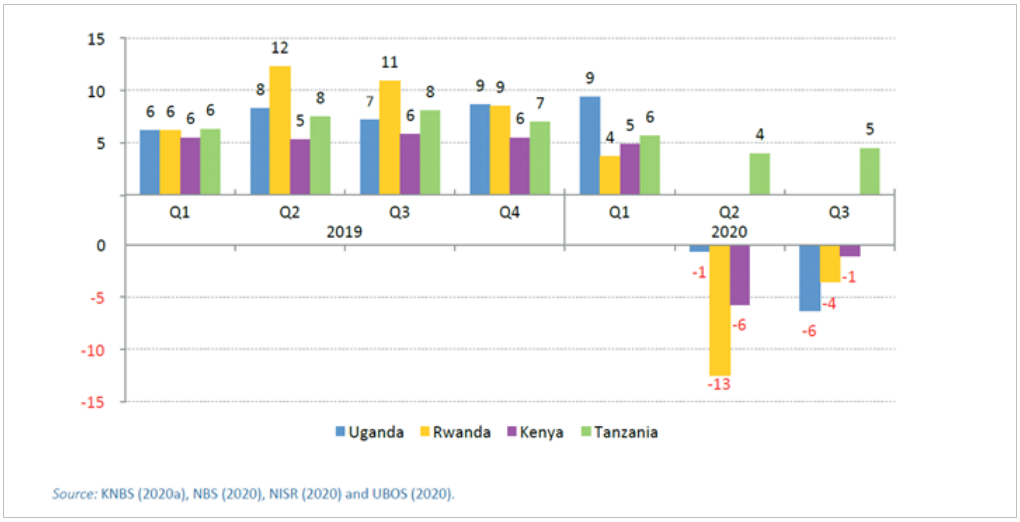
Table 1: EAC macroeconomic indicators

	2016	2017	2018	2019
Population (million)	174.74	179.77	184.89	190.07
Total GDP (current billion USD)	159.70	175.47	191.37	207.21
Inflation, consumer prices (annual %)	7.41	10.82	1.92	-
Lending interest rate (%)	21.98	21.17	20.51	-

Source: World Bank Development Indicators.

The performance of the EAC economies in the first three quarters of 2020 varied, where the economies of Kenya, Uganda, and Rwanda contracted in the second and third quarters, while Tanzania economy continued to post positive growth rates of above 4% as indicated in Figure 1.

Figure 1: Selected EAC quarterly GDP growth rates performance (%)[5]



Value addition by sectoral components of GDP in EAC

The value addition from agriculture and services still plays a dominant part in the EAC economies compared to the industrial sector. In all the EAC Partner States, services sector is a major contributor to the economic growth of the respective economies (with value addition above 40%). Analysis of value added by the key economic sectors in the five EAC Partner States is summarized in Table 2.

Table 2: Value added as a percentage of GDP

GDP Components	2015	2016	2017	2018	2019
Burundi Value Added					
Agriculture, forestry, and fishing	30.7	31.5	28.5	29.0	28.9
Services	49.4	47.7	49.3	49.1	47.9
Industry (including construction)	11.8	12.2	11.0	11.1	11.0
Kenya Value Added					
Agriculture, forestry, and fishing	30.2	31.1	34.8	34.1	34.1
Services	46.2	44.8	42.3	43.1	43.2
Industry (including construction)	17.3	17.9	16.8	16.4	16.1
Rwanda Value Added					
Agriculture, forestry, and fishing	24.0	25.1	26.3	24.6	23.5
Services	49.7	49.2	47.9	49.7	49.1
Industry (including construction)	17.5	16.9	17.3	17.3	18.9
Tanzania Value Added[6]					
Agriculture, forestry, and fishing	26.7	27.4	28.7	..	..
Services	40.4	39.4	37.9	..	..
Industry (including construction)	24.5	24.9	25.1	..	..
Uganda Value Added					
Agriculture, forestry, and fishing	23.6	22.8	23.5	23.2	23.1
Services	42.8	44.2	43.5	43.5	43.2
Industry (including construction)	26.4	26.3	26.0	26.1	26.3

Source: World Bank Development Indicators database.

Light manufacturing overview

The International Labour Organization (ILO) Skills for Trade and Economic Diversification (SKED) programme research on Cambodia light manufacturing broadly defines light manufacturing to use partially processed materials to produce items of relatively high value for end users or intermediates for use by other industries (ILO, 2015). The light manufacturing sector was broadly defined to include: manufacture of structural metal, jewellery and related products, articles of lime, furniture, clay building materials, cutlery, hand tools, glass and glass products, and other fabricated metals.

The World Bank study on light manufacturing in sub-Saharan Africa scoped light manufacturing by its characteristics in terms of size of enterprises, employment and production scale ability. Light manufacturing was characterized with few medium-size formal firms providing products to niche or protected markets and by a vast number of small, low-productivity informal firms providing low-quality products to the domestic market. These enterprises provide low-paying jobs, little in foreign exchange earnings, and few productive employment opportunities for young Africans (Hinh et al., 2012).

Light manufacturing is a subsector of industry, and taking the performance of industry in Table 3 as a proxy for light manufacturing in each EAC Partner State for the period 2015-2019;

- Burundi share of industrial value addition to GDP averaged 11.42% per annum but reduced from 11.8% in 2015 to 11% in 2019.
- Kenya industrial value addition share to GDP averaged 16.9% per annum and declined from 17.3% in 2015 to 16.1% in 2019.
- Rwanda industrial value addition share to GDP averaged 17.6% per annum and increased from 17.5% in 2015 to 18.9% in 2019.
- Tanzania industrial value addition share to GDP averaged 24.8% per annum for the period 2015-2017 and increased from 24.5% in 2015 to 25.1% in 2017.
- Uganda industrial value addition share to GDP averaged 26.2% per annum and reduced from 26.4% in 2015 to 26.3 % in 2019.

3. Methodology

Study design

This section provides a description of the methodological approach taken in developing the report to study the impact of COVID-19 on light manufacturing (production/processing, distribution and export) in the EAC for the period March 2020 to November 2020. A number of research methods were employed to review the literature, analyse the data, and gather key insights from stakeholders in the region to arrive at credible, reliable and unbiased findings. The overall methodological approach utilized a mixture of primary and secondary sources of data.

- The primary data sources included (i) interviews with key stakeholders (online interviews), and (ii) a perception survey of private sector firms in the region.
- Secondary data sources included (i) a review and analysis of a range of publications on the status of manufacturing from the region (EAC, EABC, AERC), and (ii) documentation from the Partner States level on the status of manufacturing/ industry.

An online survey method was chosen to acquire data from the EAC Partner States of Kenya, Uganda, Rwanda, Burundi, and Tanzania. The targeted respondents were at least ten identified light manufacturers within each EAC Partner States. The electronic survey included identifying the key light manufacturing sectors following in the major categories of agro process, beverage manufacturing, dairy process, furniture and timber processing, plastics, mattress manufacturing, steel and iron, and textiles and apparel.

A survey of 42 questions included close and open ended questions. In the open ended questions respondents were allowed to share experiences in terms of COVID-19 impact on their operations.

To increase the robustness and the detail of the study, respondents were allowed to detail manufacturing events based on the opened ended questions with the intention to collect experiences and policy recommendations from manufacturers.

The survey also captured the impact on light manufacturing in terms of economic related impacts, trade related impacts, identification of fiscal and monetary stimulus,

policy recommendations and proposals from manufacturers to support their recovery post COVID-19 pandemic.

To complement the online survey and improve on the non-response problems, completed country specific surveys on manufacturing were used; that is, studies related to the impact of COVID-19 on manufacturing in Kenya, Uganda and Rwanda were used to collect additional information to improve on the findings and results.

Primary data sources

Key informant interviews (KIIs)

The study's target was at least ten manufacturers per each EAC Partner State. However, no responses were received from Kenya, Rwanda and Burundi. Only responses received from Tanzania and Uganda were used to gather insights from the stakeholders identified as important.

Questionnaire is attached as Annex 1.

Secondary data sources

Documentary review

Extensive literature was reviewed on the impact assessment of COVID-19 pandemic on light manufacturing in the East Africa region. The documentary review focused on the following topical issues:

- Review of impact studies at the national and regional levels that relate to the assessment of the impact of COVID-19 on manufacturing/industry/trade/productive sectors.
- Identifying the lessons and good practice across the EAC, other RECs, and national authorities that could inform and influence the effective policy development to support and protect the manufacturing sector from current COVID-19 and future pandemics.
- Understanding the role of trade, industrial and economic policies in stimulating manufacturing/industrial production and market access industrial output.
- Identify the role that the EABC, EAC and national manufacturers associations could play in developing and enhancing manufacturing supply chains, job creation, and industrialization.

Data

This covers the summary analysis of the respective data sets received from both primary and secondary data extracted during the study.

Desk review

The study undertook a desk review and documentary approach with the aim of:

- Identifying the impact of COVID-19 on light manufacturing in the EAC and understanding the instituted COVID-19 measures within EAC Partner States.
- Analysing EAC Partner States' manufacturing performance related indicators.

The literature/desk research constituted identification of relevant documents which elaborate and evaluate the manufacturing sector performance during the COVID-19 period and after.

Among the key issues in literature review was an analysis of policy research on the linkages between COVID-19 and light manufacturing performance at both regional and national/domestic level.

Stakeholder consultations

This involved a mapping out of respondents with an interest in light manufacturing in the EAC and undertaking subsequent consultations.

The aim of stakeholders' consultations was to:

i) Assess and confirm the impact of COVID-19 on their productivity and general manufacturing output performance;

ii) Identify issues linked to Partner States' light manufacturing output performance/ productivity;

iii) Identify the key COVID-19 measures instituted in each EAC Partner State;

iv) Identify the support/economic measures for recovery of the light manufacturing sector; and

v) Identify proposals to support the light manufacturing recovery in the EAC region.

Data limitations

The main limitation of the study was non-response from some of the identified stakeholders from Kenya, Rwanda, and Burundi. Whereas some of them took long to respond, others never responded even after many prompts and reminders.

The non-response was circumvented by using the existing country specific studies conducted on impact of COVID-19 on manufacturing/industry, business and economy, and analysis from extracted national data sources of the respective central banks and national statistical office databases/reports.

Analytical framework of the COVID-19 impacts

One of the transmission channels that the COVID-19 epidemic impacts on the economic wellbeing is through direct and indirect effects of the sickness and death which will reduce people either temporarily or permanently from the labour force (ADB, 2020; KPMG, 2020).

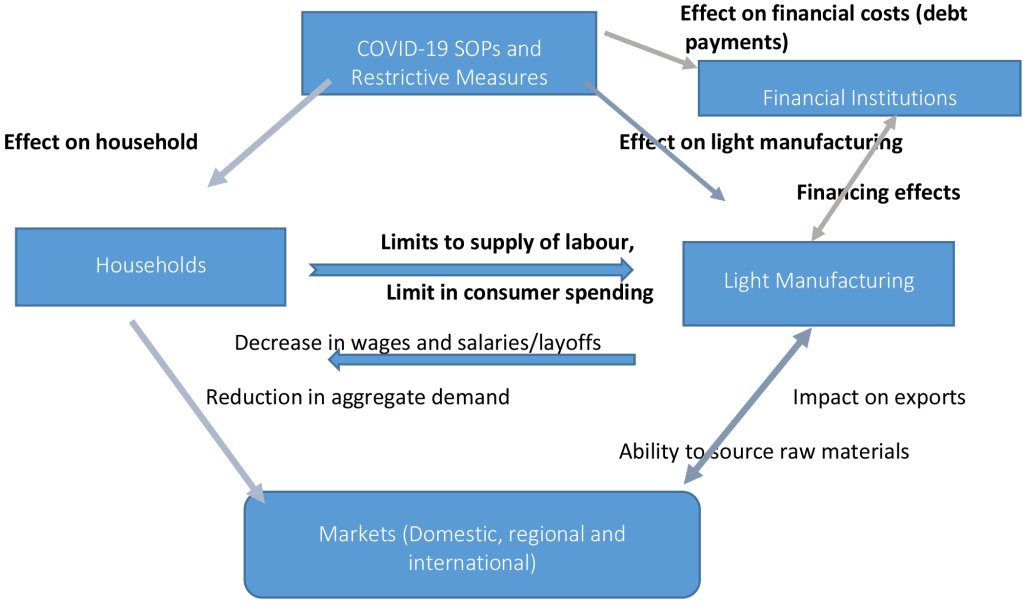
The other transmission mechanism is the health related interventions affecting aggregate demand and supply within the economy. Baldwin and di Mauro (2020) noted that COVD-19 pandemic is expected to affect negatively both the components of the aggregate demand and supply as well as the financial services. It will affect the demand-side by declining the consumption due to factors such as restrictions on movement and poor expectations about the future income, declining investment because of uncertainty and poor expectations about future profitability, declining net exports resulting from a disruption in supply chains of export products and border closures, and increasing government expenditure due to expansionary fiscal policy and increased health and other social reactive expenditure to the COVID-19 effects (Chukwuka & Ekerushe, 2020).

The supply shocks will result from shutdowns and supply chain disruption, causing ripple effects across all economic sectors. For example, stay-at-home, social distancing, lockdowns, and quarantines are expected to reduce both the supply of labour and capacity utilization of enterprises (Goshu et al., 2020). Accordingly, restrictions on the movements of people will certainly interrupt several value chains, availability of food and agricultural products, with a potential impact on prices (Goshu et al., 2020). With respect to financial shocks, enterprises, and small and medium enterprises in particular, are expected to face liquidity crunch and unable to service their bank loans, calling for adequate measures beyond the extension of loan repayment (Ozili, 2020).

The three shocks reinforce each other and exacerbate business closures and job losses, resulting in wider social problems. Given that a significant part of the shock is coming from the supply-side, country experience indicates that demand management policies, such as fiscal and monetary policies, may play a small role in stabilizing the economy (McKibbin, 2020).

The analytical framework shown in Figure 2 reflects how the COVID-19 and restrictive measures affected light manufacturing.

Figure 2: Analytical framework of COVID-19 impacts to light manufacturing



Source: Developed by the Author.

The analytical framework indicated in Figure 2 relates the impact of COVID-19 SOPs and restrictive measures to light manufacturing. Impacts in light manufacturing are studied based on the relationship from the demand- and supply-side of households, markets, and financial institutions.

4. Results and findings

Findings from the survey

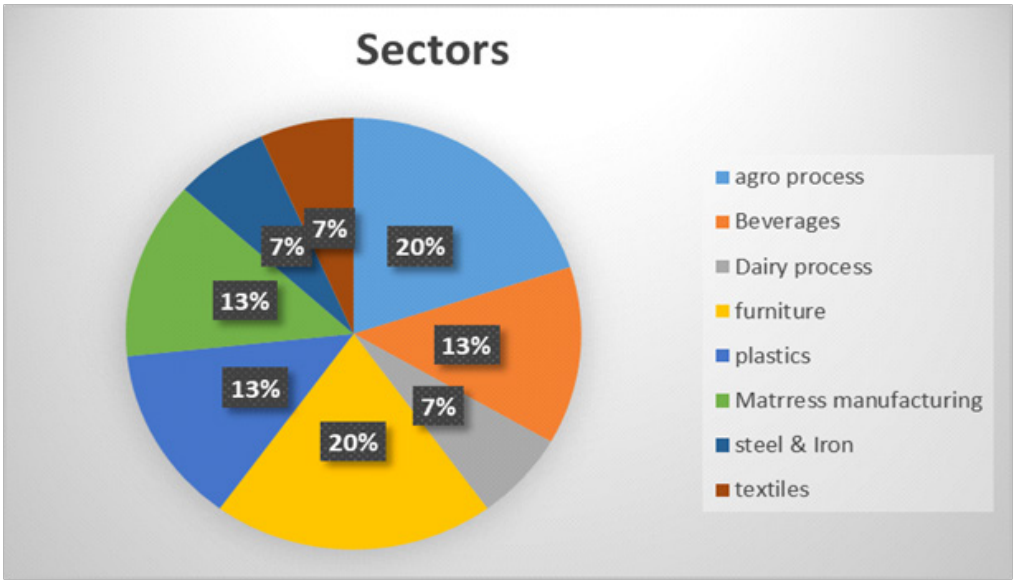
The survey's target was ten respondents per each EAC Partner States of Burundi, Rwanda, Uganda, Kenya, and Tanzania. However, responses were received from only Tanzania and Uganda.

Summary analysis based on the responses received

Nature of the companies

Responses received from the light manufacturing industries were mainly in the sectors of agro processing, beverages, dairy processing, furniture, plastics, mattress manufacturing, steel & Iron, and textiles (Figure 3).

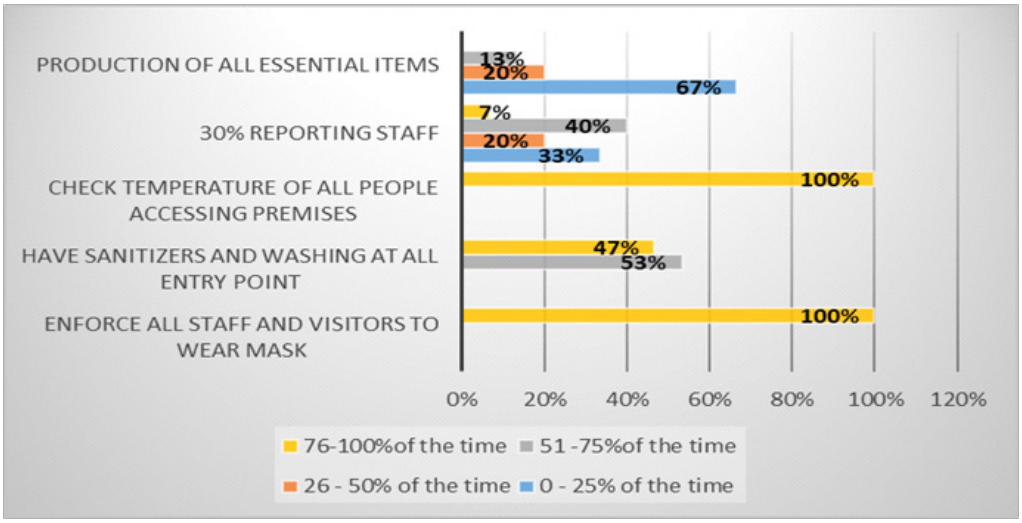
Figure 3: Light manufacturing sectors



Question 1: Please summarize any recent revisions to your operating environment done by your sector/company to mitigate the COVID-19's challenges to remain in production and meet your customer needs.

The revisions in the operating environment to mitigate the COVID-19's challenges to remain in production and meet customer needs were enforcement of standard operating procedures (SOPs) of all staff and clients wearing face masks, checking temperatures of all people accessing premises, reduction in operation staff, and partial production of essential items (Figure 4).

Figure 4: Changes in the operating environment done

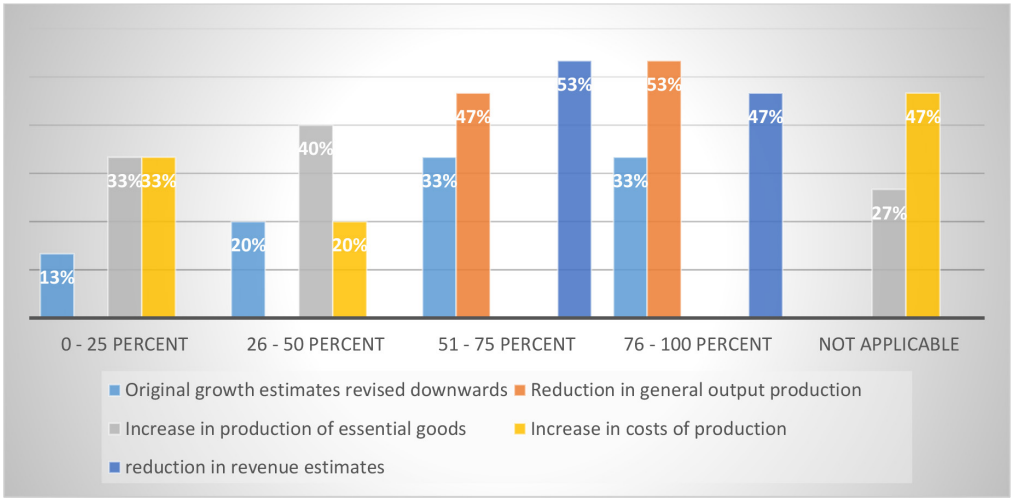


Due to COVID-19 pandemic, companies instituted SOPs at their premises, and the most prevalent measures were mainly temperature measurement of all people entering the production facility and wearing of masks for both visitors and staff.

Question 2: Please summarize any recent adjustments to your production as a result of incorporating COVID-19's impacts, including the original growth estimates, employment levels, output production, cost adjustments, and revenue estimates.

Overall, all the companies surveyed made adjustments downwards to reflect the COVID-19 challenges in their production during the period of lockdown in the early stages of COVID-19 (March 2020 – May 2020).

Figure 5: Company production adjustments

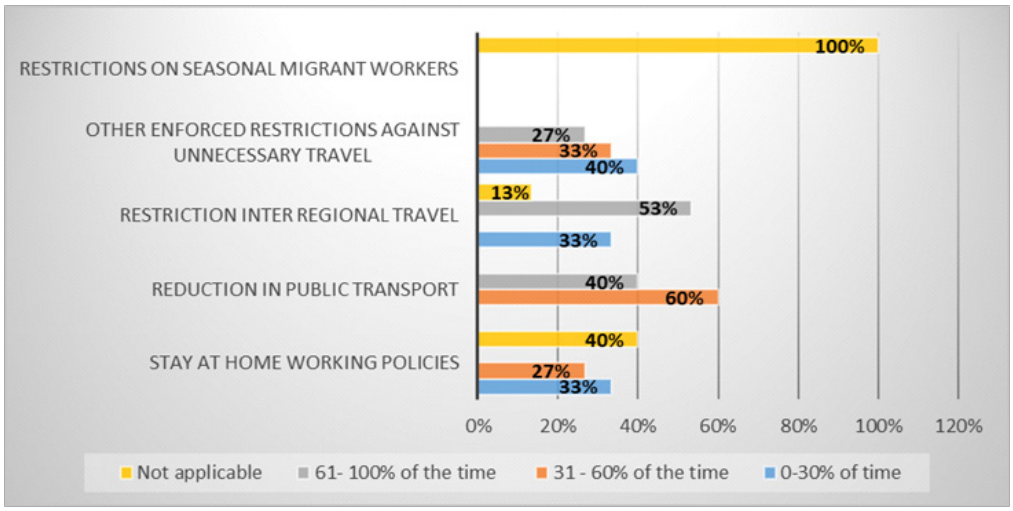


Manufacturing companies had readjusted their production to cater for the effect of COVID-19 on them. The major adjustments that companies undertook during the peak of the pandemic (that is March to May 2020) were mainly downward revisions of original growth estimates, reduction in output production, and reduction in the revenue estimates (Figure 5).

Question 3: What measures restricting the movement of individuals have been introduced? Please consider a wide range of individuals, taking into account different forms of employment, unemployment and those outside the labour market, including vulnerable groups.

A number of restriction measures during the peak of COVID-19 affected operations of manufacturing, and these movement restrictions were mainly in the months of March to May 2020. Due to the nature of manufacturing, among the interviewed, restrictions on seasonal migrant workers was not applicable, work at home policies were in minimal use due to the nature of light manufacturing sector as compared to restrictions on public transport which most workers use as indicated in Figure 6.

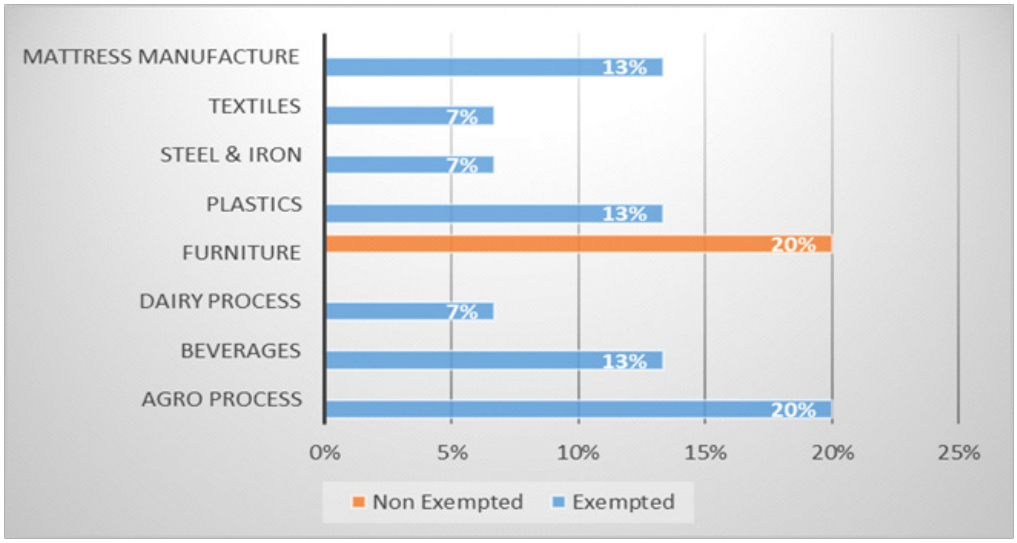
Figure 6: Movement restrictions



Question 4: List the sectors that have been exempted, and roughly estimate the production/output levels

From the responses, light manufacturing continued to operate, but at different levels of production where the majority of the sectors were exempted with the exception of furniture as indicated in Figure 7.

Figure 7: Status of exempted sectors

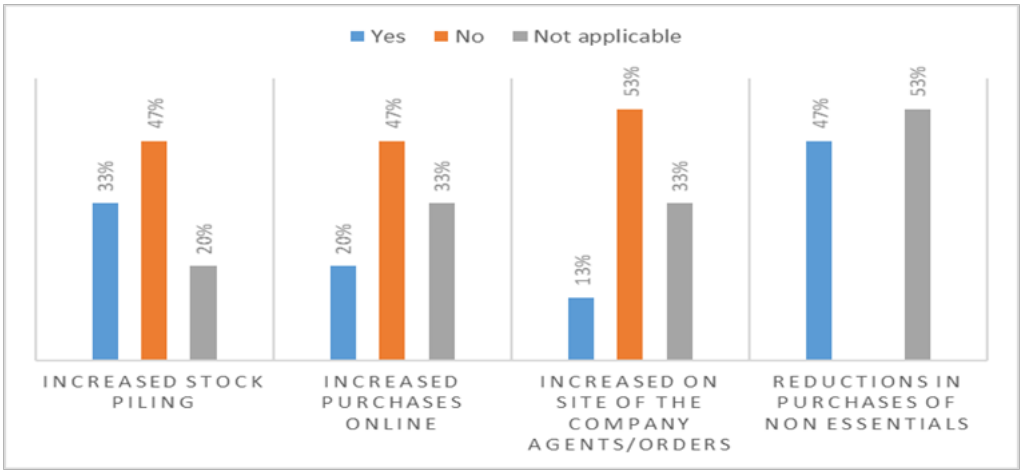


The majority of the surveyed companies fell in the essential category with exception of furniture companies.

Question 5: Have there been any notable impacts on consumer behaviour? That is in terms of (a) Increased stockpiling, (b) Increased purchases online, (c) Increased purchase orders (on site of the company/agent), (d) Reductions in purchases of non-essentials, and (e) Others.

Due to the nascent e-commerce infrastructure in the EAC, online purchases were minimal, some consumers in the early stages stockpiled in anticipation of stricter lockdowns and reductions in purchase of non-essentials as indicated in Figure 8.

Figure 8: Consumer behaviour

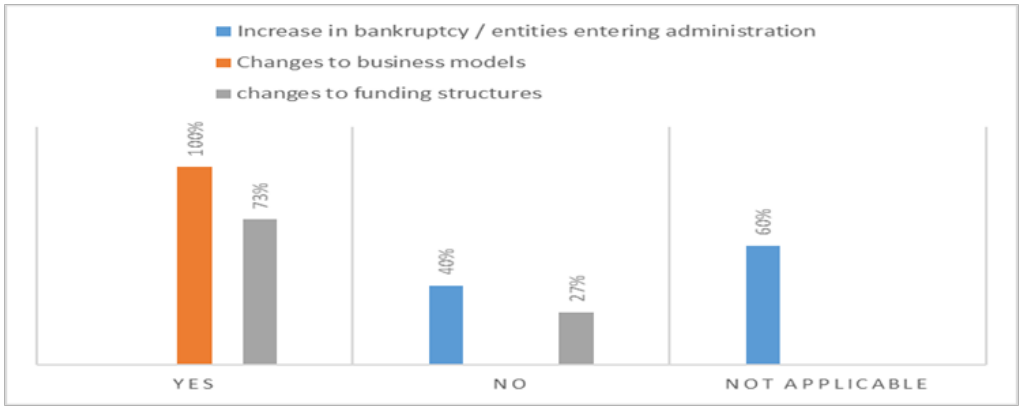


The observed consumer behaviour at the peak of the pandemic: a third of the respondents recorded increased stockpiling, 20% increased purchases online, and 47% readjusted their expenditure patterns and reduced purchase of non-essentials.

Question 6: Have there been any notable business impacts, according to the following conditions listed below? Summarize the business impacts and the sectors affected.

Notable business impacts and company changes were mainly in changes to business models that broadly include: reduced operating times or physical presence, changes in product choice, and changes to funding structures (rescheduling of loan repayments/holidays, dividend pay-outs, utilization of policy support measures). That is, the majority of the companies surveyed changed the business models and recorded changes to funding structure (approximately 73%) as shown in Figure 9.

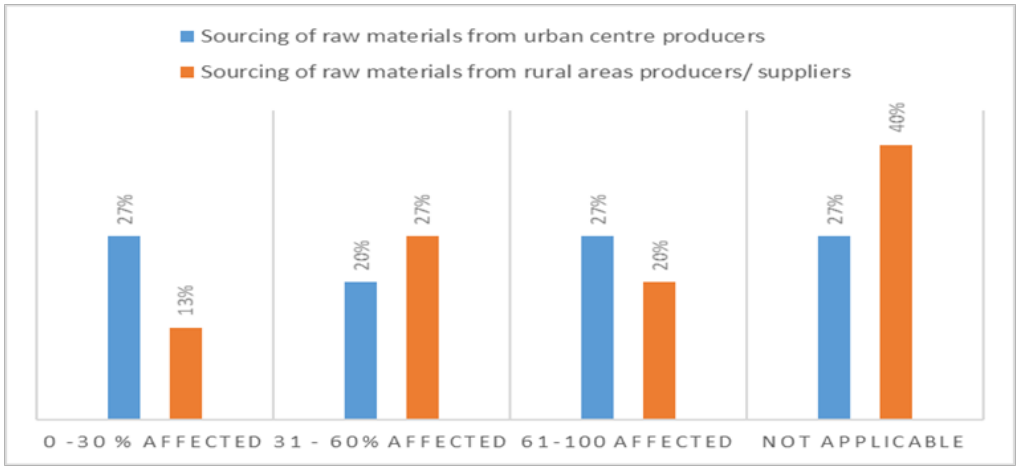
Figure 9: Notable business impacts



Question 7: Broadly, which domestic supply chains have been affected in your respective country or territory, and how? For example, factory closures in one part of the region affecting flow of goods to downstream producers.

The results of impact on domestic supply chains varied in terms of sourcing raw materials from either urban or rural suppliers. Impact on sourcing from rural and urban suppliers were minimal as indicated in Figure 10. The impacts were ranked based on three major categories: least affected (0–30%), less affected (31–60%), and most affected (61–100%). In the most affected category, on sourcing of raw materials, 27% highly depend on urban areas and 20% on rural areas.

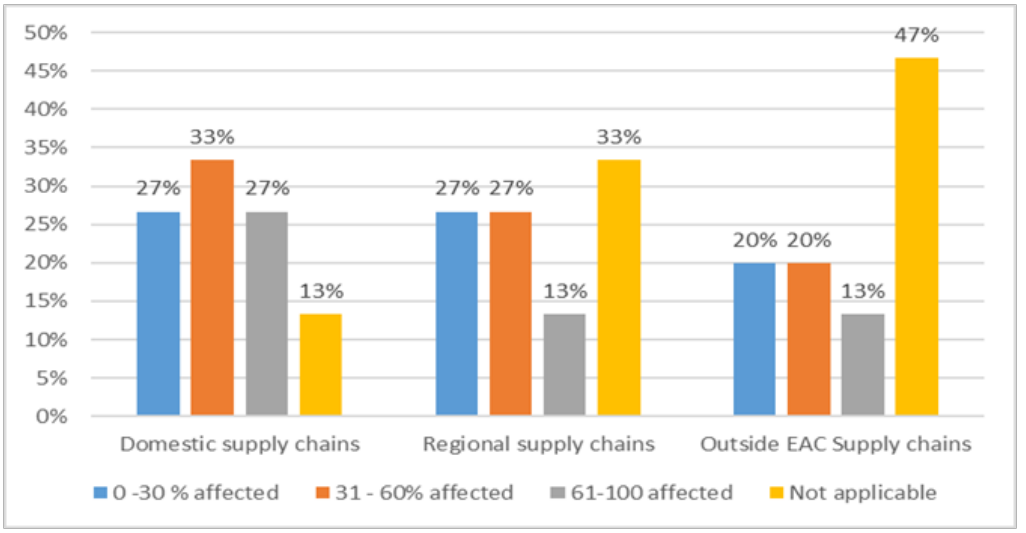
Figure 10: Domestic sourcing of raw materials



Question 8: Broadly, which cross-border supply chains have been affected in your respective country or territory, and how? For example, domestic exporters/ importers being affected by failures of international factories to procure/ purchase.

On the analysis based on supply chains, impact was noticeable on both domestic and regional value chains compared to sourcing and supplying outside EAC. That is, in the category of the most affected (60–100%), 27% depend on domestic supply chains compared to 13% that rely on regional supply chains and outside EAC supply chains (Figure 11).

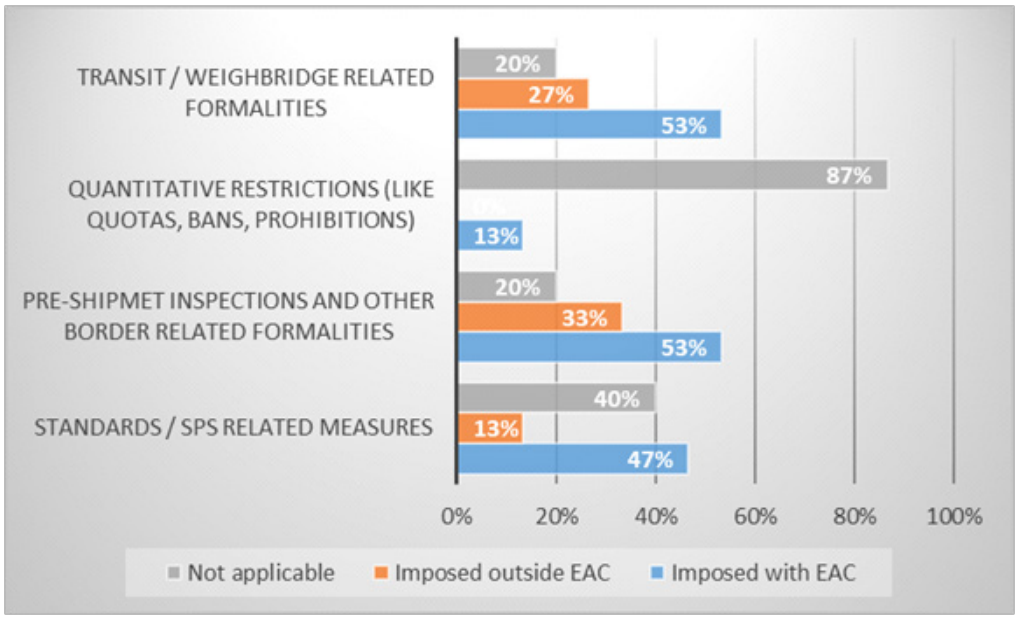
Figure 11: Impact on supply chains



Question 9: Broadly, state any trade restrictive measure/non-tariff barrier (NTB) your company/sector has faced in the due process of exporting? Please elaborate on the trade restrictive measure/NTB you have experienced and which is the imposing country?

Trade restrictive measures were dominant in the EAC region and these were mainly: transit/weighbridge related formalities, pre-shipment inspections and other border related formalities, and standards/SPS related measures as shown in Figure 12.

Figure 12: Trade restrictive measures

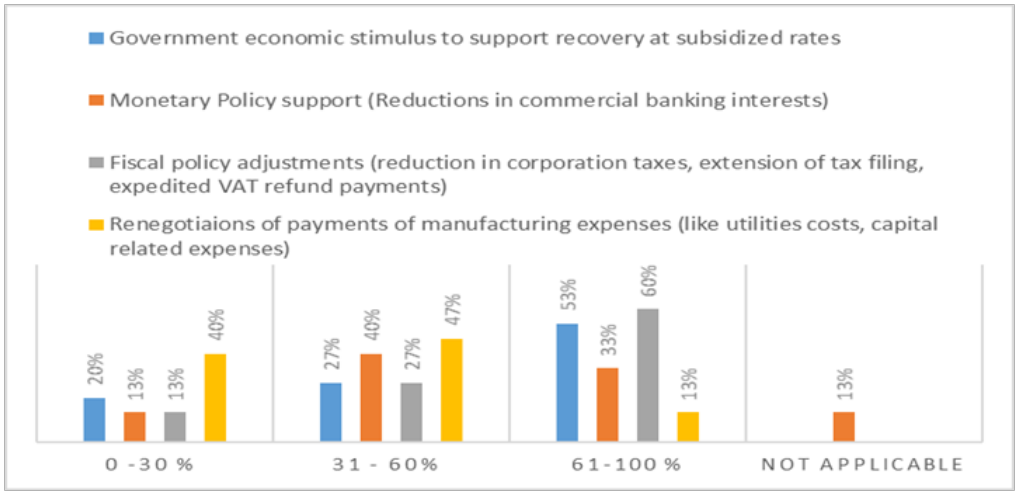


Question 10: Please summarize and recommend policy measures that can be pursued by the public/private sector to stimulate manufacturing output or support particular industries or sectors.

The most recommended policy measures to stimulate manufacturing output or support the recovery of light manufacturing were mainly: advocate for government stimulus to support recovery at subsidized rates, and fiscal policy measures aimed at reducing the tax liabilities and burden to manufacturers.

On the proposed policy measures to stimulate light manufacturing recovery within the EAC region, the most preferred option for manufacturers was fiscal policy adjustments, with a weight of over 60%, followed by government economic stimulus at 53%, and monetary policy support targeting reductions in commercial banking interests to stay afloat (33%) as shown in Figure 13. Therefore, the EAC region must address the challenges through a regional perspective that calls to develop a comprehensive and coordinated cross-border policy response to COVID-19 and any future shock. Policy response must be private sector led.

Figure 13: Recommended policy measures



Summary of policy recommendations from the regional validation workshop held on 29th April and the regional forum held on 25th and 26th May 2021

During the regional validation workshop held on 29 April 2021, and the regional forum held on 25-26 May 2021, key policy interventions were recommended by the industrial practitioners and other researchers to boost quick recovery of the manufacturing sector; they are summarized as follows.

The Chairman BIDCO Group of Companies called for the EAC Customs Union to fully function and integrate the EAC by reducing the border restrictions within the EAC and eliminate the non-tariff barriers that hinder smooth flow of goods and services within the region.

Further noted was that manufacturers want the EAC Common External Tariff review expedited; the review process is long overdue and stay of applications are frustrating the EAC industrialization drive.

Policy recommendations highlighted by Mr. Dennis Karera, Vice Chairperson of the East African Business Council and a business entrepreneur from Rwanda focused mainly on: advocate for long term moratorium with financial lenders/ commercial banks to ease credit pressure on borrowers, fiscal policy stimulus to businesses in terms of offering specific tax incentives, reduction of tariffs, fast track VAT refund payment to ease cash flow to businesses, and mutual recognition of COVID-19 PCR test within the EAC region to enhance and facilitate the movement of people.

Summary of key COVID-19 control measures instituted by EAC Partner States

The COVID-19 control measures instituted at the beginning of COVID-19 in March 2020 but some relaxed starting July 2020 in the EAC Partner States broadly fall into five categories:

- Social distancing,
- Movement restrictions,
- Public health measures,
- Social and economic measures, and
- Lockdowns.

The restrictive measures that impacted aggregated demand and supply due to the closure of big consumers like schools, gatherings, transport, bars, and restaurants had a ripple effect on the production output of light manufacturing.

COVID-19 measures by Partner States that relate to the manufacturing performance

Kenya COVID-19 related measures

- **Governance and socioeconomic measures**
  - Economic measures instituted to support manufacturing recovery.
  - Limit product imports/exports (resulting from closure of the borders in the early peak of COVID-19 (March–April 2020), temporary ban on used garments, and exports of respiratory masks banned in March 2020.
- **Lockdown**
  - Full lockdown; Kenyan President Uhuru Kenyatta announced a phased reopening of the country, with the resumption of international flights from August 1 as well as the lifting of internal travel restrictions.[7] Nationwide lockdown measures, restrictions on road, rail and air movements in and out of the Nairobi Metropolitan area, Mombasa, and Mandera counties. National wide curfews starting from 19:00hours to 05:00hours.[8]
  - Partial lockdown. Governor Ali Roba announced a 30-day lockdown on Mandera County to prevent the spread of the coronavirus (COVID-19) following the confirmation of two cases in that county. All public transportation including

inter-ward, inter-sub county, and movement between villages was suspended with immediate effect, though exceptions were made for those transporting food.[9] All movements in and out of Kakuma and Dadaab refugee camps were prohibited as of 29th April 2020.

- **Movement restrictions**
  - Additional health/documents requirements upon arrival,
  - Border checks,
  - Border closure,
  - Complete border closure,
  - Curfews,
  - Domestic travel restrictions,
  - International flights suspension,
  - Surveillance and monitoring,
  - Visa restrictions.
- **Public health measures**
  - General recommendations (stay safe precautions [physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning of hands], avoid non-essential travels to high risk countries),
  - Health screenings at airports and border crossings,
  - Isolation and quarantine policies,
  - Requirement to wear protective gear in public,
  - Testing policy,
  - Social distancing,
  - Changes in prison-related policies,
  - Closure of businesses and public services,
  - Limit public gatherings,
  - Schools closure.

Burundi COVID-19 related measures

- **Movement restrictions**
  - Border checks,

- International flights suspension,
- Visa restrictions.

- **Public health measures**
  - General recommendations (hygiene recommendations, and call for all public institutions to ensure they have handwashing soap available for the public),
  - Health screenings at airports and border crossings,
  - Isolation and quarantine policies.

Rwanda COVID-19 related measures

- **Governance and socioeconomic measures**
  - Economic measures aimed at stimulating the recovery of the economy.
- **Lockdown**
  - Partial lockdown; announcement of lockdown for the country of Rwanda for a period of two weeks. Preventative measures for the next two weeks: non-essential movement outside the home is not permitted, all employees shall work from home except those providing essential services, non-essential shops and markets are closed, all bars closed, restaurants/cafes may only provide take-away/delivery services.
- **Movement restrictions**
  - Additional health/documents requirements upon arrival,
  - Border closure,
  - Curfews,
  - Domestic travel restrictions,
  - International flights suspension,
  - Surveillance and monitoring.
- **Public health measures**
  - Health screenings at airports and border crossings,
  - Isolation and quarantine policies,
  - Mass population testing,
  - Requirement to wear protective gear in public,
  - Strengthening the public health system,
  - Testing policy.

- **Social distancing**
  - Closure of businesses and public services,
  - Limit public gatherings,
  - Schools closure.

Tanzania COVID-19 related measures

- **Governance and socioeconomic measures**
  - Economic measures.
- **Movement restrictions**
  - Additional health/documents requirements upon arrival,
  - International flights suspension.
- **Public health measures**
  - General recommendations (advice to avoid non-essential travel to COVID-19 affected countries, buses and trains should be sprayed at the end of every journey and hand washing equipment should be installed at all bus and train stations),
  - Health screenings at airports and border crossings,
  - Isolation and quarantine policies.
- **Social distancing**
  - Limit public gatherings,
  - Schools closure.

Uganda COVID-19 related measures

- **Governance and socioeconomic measures**
  - Economic measures.
- **Lockdown**
  - Partial lockdown.
- **Movement restrictions**
  - Border closure,
  - Curfews,
  - Domestic travel restrictions,

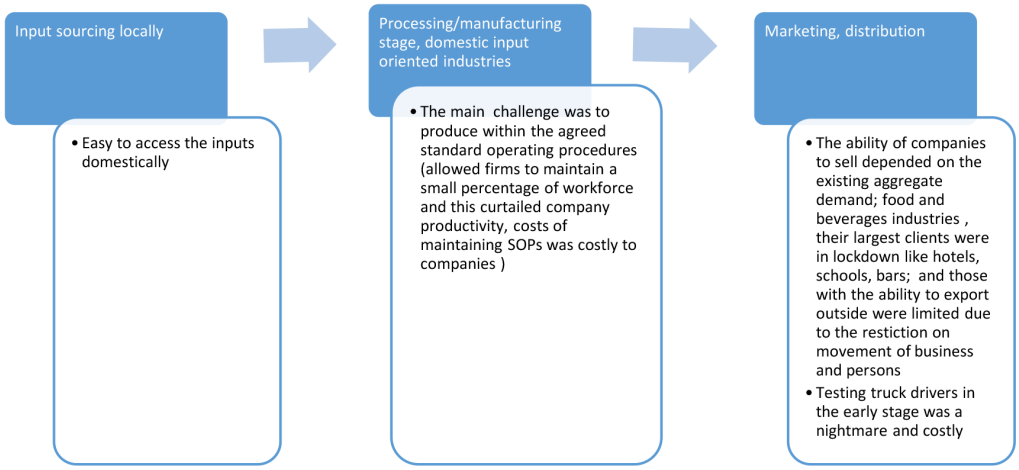
- International flights suspension,
- Surveillance and monitoring.

- **Public health measures**
  - Health screenings at airports and border crossings,
  - Isolation and quarantine policies,
  - Testing policy.
- **Social distancing**
  - Closure of businesses and public services,
  - Limit public gatherings,
  - Schools closure.

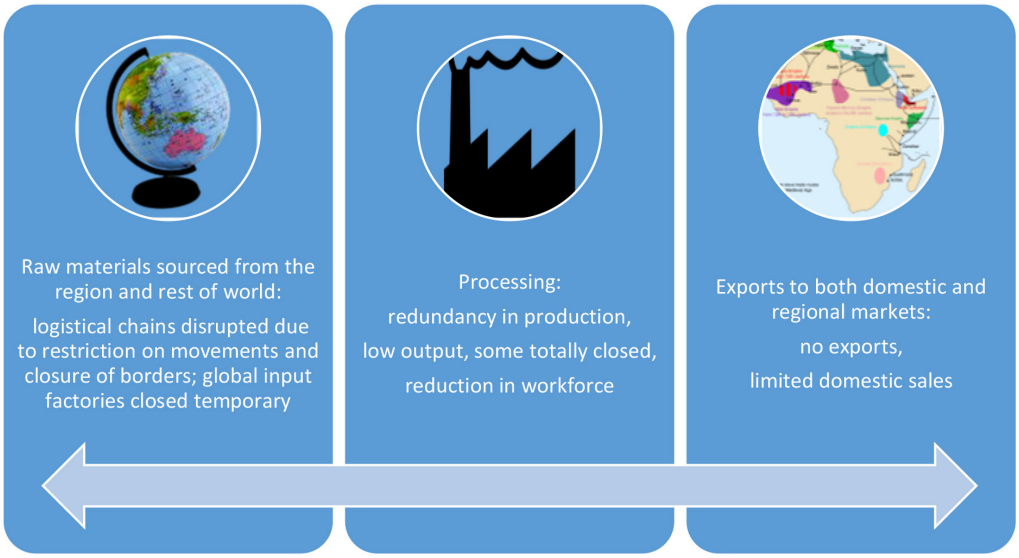
Summary analysis of the impact of COVID-19 on selected light manufacturing supply value chains

The light manufacturing firms are broadly classified into two main categories of sourcing inputs and adding value, that is:

- Industries depending on sourcing raw materials in the domestic market (these are mainly food processing firms, dairy producers, and furniture firms). Summary challenges in the supply chain are indicated as follows:



- Other industries that depend on sourcing raw materials from international and regional markets (these cover steel and iron plants, part of beverage plants involved in making alcoholic drinks, paper industries, textiles industries that source yarn from other markets, leather industries that import tanned leather, animal vegetable, and fats refiners).



COVID-19 impact assessment on light manufacturing per country

The assessment per country is based on the published data from the national data sources of Central Reserve Banks and national statistical offices in each country.

Kenya assessment

The Kenya analysis is based on the study conducted by Kenya Association of Manufacturers (KAM) and KPMG Kenya on the impact of COVID-19 on the manufacturing sector in Kenya. Additional analysis to compliment the study findings of KAM and KPMG is obtained from secondary data of Central Bank of Kenya and Kenya National Bureau of Statistics. The survey was conducted among the KAM membership to uncover the challenges faced by businesses including labour issues, financial constraints and challenges in production and operations arising from the imposed curfew and restriction of movements.

The key findings from the survey are summarized as follows.

COVID-19 impact on operations

Demand

Essential goods manufacturers in the sectors like food and beverages, paper and paperboard, automotive, chemical and allied, textiles and apparel, and pharmaceutical and medical equipment reported a drop in the volume of demand of their products where 74% of essential goods manufacturers reported a significant drop in demand and 91% of non-essential goods manufacturers recorded a significant drop too. The drop in demand is linked to strict measures of lockdown in domestic tourism and hospitality, closure of education and catering institutions and non-essential retail trade that have backward and forward linkages in terms of bulk purchase.

Sales turnover

About 93% of respondents from the survey experienced a fall in turnover, with at least 23% registering losses in the range of 65–100 %, and 51% between 30-65%. As for the fall in turnover, 78% of the respondents attributed it to fall in aggregate demand of products. The worst hit sectors are textile & apparel; timber, wood & furniture; and leather and footwear with 61%, 60% and 40% of respondents, respectively, having a loss in turnover of more than 65%.

Production

About 88% of respondents were operating at over 50% production capacity before Covid-19 took effect. This number declined to more than half to 42%. The average utilized capacity for MSMEs was 74% before Covid-19, this figure halved and now stands at 37%. The sectors most affected are those considered to be non-essential: textile & apparel, timber & furniture, and automotive sectors, where 61%, 60% and 47% of the respondents, respectively, have decreased their production capacity by more than 40%. Ashit Shah, Chair Kenya Motor Vehicle Assemblers and accessories sector, reported a loss in total sales of new vehicles due to the shut down in the assembly plants.

Logistics

The lockdown affected the logistics and distribution of raw materials, where 76% of the respondents experienced challenges in the sourcing or shipping of raw materials. Example is the leather industry where buyers are not able to get the raw hides from

upcountry. About 77% of the respondents recorded an increase in the cost of procuring imported raw materials.

Employment related effects

About 69% of the respondents strongly agree or agree that they had difficulty in paying salaries and wages. This number increases to 79% for MSMEs. These difficulties have contributed to 39% of the respondents sending their staff on unpaid leave, while 27% have made salary/wage adjustments (Figure 14).

Figure 14: Labour relation measures

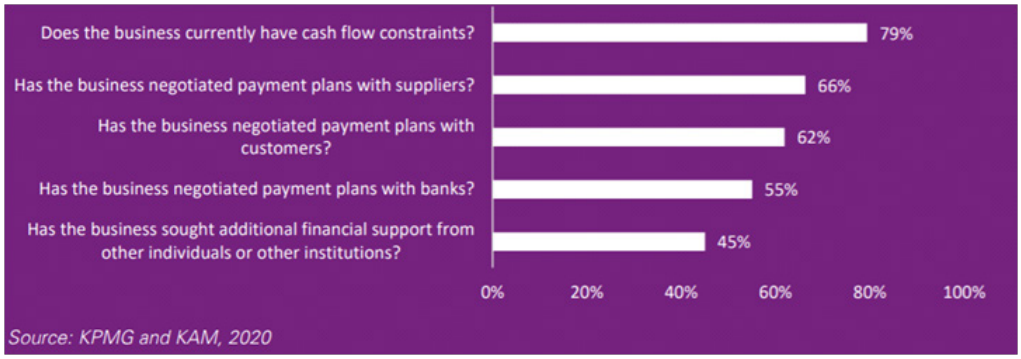
In 2019, the manufacturing industry was the highest contributor to employment in the private sector, accounting for 15.9%.[10] However, during Covid-19 pandemic, casual labourers have so far felt the brunt of the downsizing measures with 40% of respondents indicating that they have already reduced the number of casual labourers. About 73% of the respondents have retained the number of permanent employees but this is likely to get worse if things do not improve.

About 58% of the respondents that previously employed over 100 permanent employees have reduced them by 12%; and 25% of those that employed over 100 casual employees reduced them to 13%. The reduction in workforce was more prominent amongst the MSME manufacturers; 41% that previously employed over 100 permanent employees fell to 30%.

Liquidity and cash flow challenges

On liquidity and cash flow, eight out of every ten participants experienced cash flow constraints, while nine out of every ten agree or strongly agree that they faced challenges in being paid by their customers, as they too need to look at their finances and prioritize their payments (Figure 15).

Figure 15: Responses to cash flow constraints



About 62% of the respondents indicated to have negotiated payment plans with their customers. Another 58% have had difficulties in meeting their tax obligations, 69% found it difficult to pay their employees, and 71% had challenges in paying other operating costs such as rent and utilities.

COVID-19 impact on light manufacturing trade (imports and exports)

Imports analysis

Kenya imports during the strict lockdown period of March to June 2020 for foods and beverages dropped significantly in March and May 2020 compared to imports of the previous months in the pre-COVID-19 period (March and May 2019), while the effect on industrial supplies and consumer goods (not elsewhere specified) was not significant (Table 3).

Table 3: Selected Kenyan imports (values in Ksh million)

	Foods and Beverages		Industrial Supplies (Non-food)		Consumer Goods (Not Elsewhere Specified)	
	2019	2020	2019	2020	2019	2020
Jan	21,025	16,649	11,445	57,613	12,573	14,150
Feb	18,983	15,594	10,795	46,298	13,288	11,108
Mar	20,699	14,402	10,917	51,560	12,984	9,914
Apr	18,971	15,455	10,953	47,460	11,231	10,917
May	19,193	12,019	8,361	49,471	10,533	13,643
Jun	18,365	16,577	11,515	46,443	14,267	12,967
Jul	18,106	13,553	9,899	54,600	10,820	14,018
Aug	19,108	9,912	10,454	45,582	11,972	17,318
Sep	17,131	12,776	10,103	60,056	10,641	14,658
Oct	20,603	14,821	11,250	61,111	11,837	11,430
Nov	20,825	13,437	9,118	57,003	11,944	12,336
Dec	15,237	17,162	46,905	61,774	14,205	14,555

Source: Kenya National Bureau of Statistics, Leading Economic Indicators for December 2019 and December 2020.

Export analysis

Domestic exports of selected light manufacturing sectors in chemicals show a drop in exports of chemicals in the period of strict COVID-19 control measures as shown in Table 4.

Table 4: Domestic exports of Chemicals (values in Ksh million)

	Chemicals		
	2018	2019	2020
Jan	3,221	3,754	3,439
Feb	3,753	3,805	4,877
Mar	3,888	3,798	4,152
Apr	3,646	3,878	3,144
May	3,512	3,683	3,616
Jun	3,663	3,831	3,931
Jul	3,907	4,460	4,131
Aug	4,463	3,896	4,398
Sep	3,841	3,631	4,336
Oct	3,924	4,273	4,357
Nov	4,177	3,237	4,303
Dec	3,463	3,383	4,894
Grand Total	45,458	45,627	49,578

Source: Central Bank of Kenya (value of domestic exports).

Burundi assessment

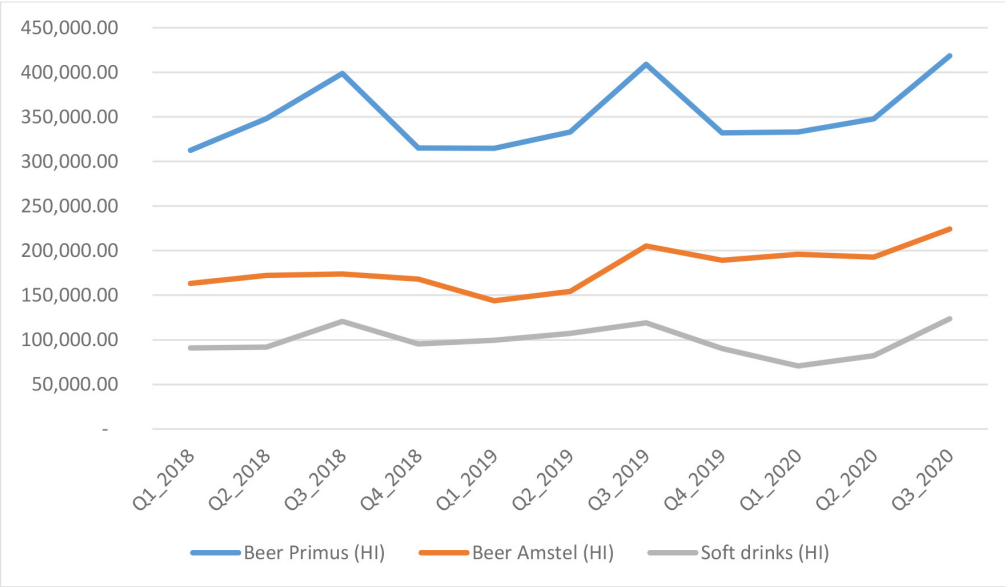
Burundi assessment is based on the production figures of the main industries obtained from the Bank of the Republic of Burundi.

The analysis by the main manufacturing sectors is as follows.

Beverages

The performance of the beverage industry during COVID-19 and post-COVID era indicate that the beverage industry was less affected by COVID-19, as volumes of production in the second and third quarters of 2020 increased (Figure 16).

Figure 16: Beverages industrial production (volumes in hectolitres)



Source: Computed from the industrial production statistics obtained from Bank of the Republic of Burundi.

Sugar sector experienced a drop in production, where production volumes in the first quarter of 2020 (Nil[11] quantities) and second quarter (588.75T) dropped compared to volumes recorded in the last quarter of 2019 (6,595.85 tonnes).

Cotton seed oil production volumes have been increasing irrespective of the COVID-19 pandemic (where production volumes in the last quarter of 2019 were 2,315L, Q1 of 2020 increased to 2,410L and Q2 increased to 5,405L).

Soap manufacturing volumes increased from 3.3M kilograms in the last quarter of 2019 to 3.6M kilograms in Q1 of 2020 to 4M kilograms in Q2 of 2020 to 5.3M kilograms in Q3 of 2020. The positive performance of the soap industry is associated to its use in sanitization to prevent COVID-19.

Impact on international trade

There was a drop in the export volumes of dark glass bottles, beers, cigarettes, and wheat flour in the second quarter of 2020 compared to the export volumes in Q1 before the COVID-19 pandemic, while export volumes of soap and Portland cement increased as indicated in the Table 5.

Table 5: Burundi manufactured exports (volumes in tons)

	Products	Dark Glass Bottles	Beers	Cigarettes	Wheat Flour	Portland Cement	Soaps
2018	Q1	85	1,396	166	4,984	175	316
	Q2	198	2,008	85	4,147	504	395
	Q3	37	1,005	99	2,690	9	491
	Q4	47	1,086	140	4,248	274	550
2019	Q1	155	910	86	4,450	9	751
	Q2	2,154	1,399	180	5,246	4	480
	Q3	394	2,484	156	4,111	40	1
	Q4	51	3,276	191	5,366	175	144
2020	Q1	303	3,308	193	4,833	23	112
	Q2	107	1,907	191	3,502	35	211
	Q3	404	2,954	381	4,617	70	134

Source: Bank of the Republic of Burundi.

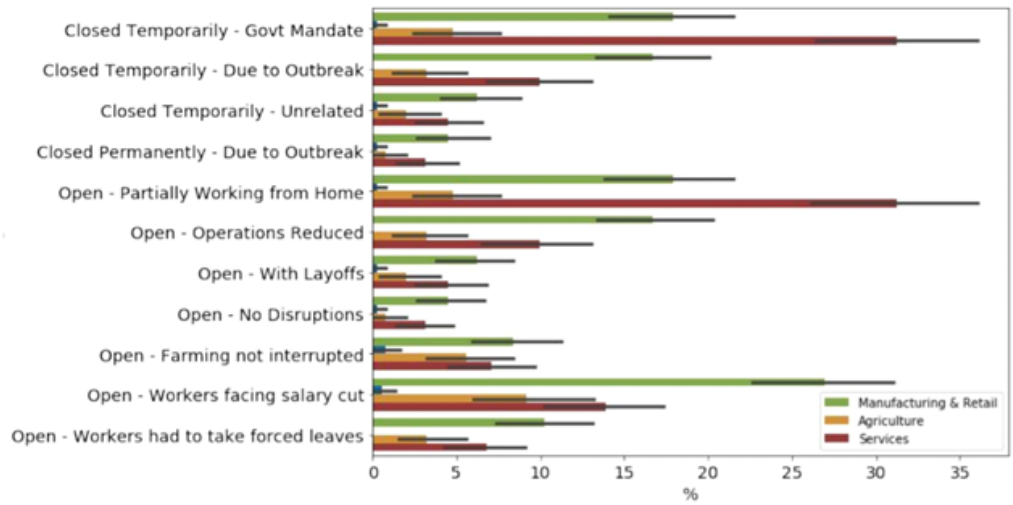
Rwanda assessment

The World Bank report on Rwanda Economic Update of January 2021 reported that implementation of lockdown and social distancing measures were critical to limiting infections but affected the economic activities. Rwanda GDP in real terms fell by 3.6% (year-on-year) in the third quarter of 2020, following a 12.4% contraction in the second quarter. GDP is estimated to have dropped by 0.2% for 2020, compared to a projected expansion of 8% before the COVID-19 outbreak. The employment to population ratio fell by 5% during the lockdown from February to May 2020. Unemployment soared over the same period from 13% to 22% of the labour force, while nearly 60% of workers who kept their jobs through the lockdown reported reduction in their salaries.

Effect on employment

Employment and salaries fell sharply in Rwanda through the lockdown period. Between February and May 2020, aggregate employment fell by nearly 370,000 or about 10%. Employment recovered from May to August 2020. The IPA's research for effective COVID-19 responses (RECOVR) survey analysis on Rwanda indicated that 25% of individuals working in the manufacturing and retail sector reported that their workplaces were open with workers facing a salary cut as indicated in the Figure 17.

Figure 17: Rwanda employment working relations



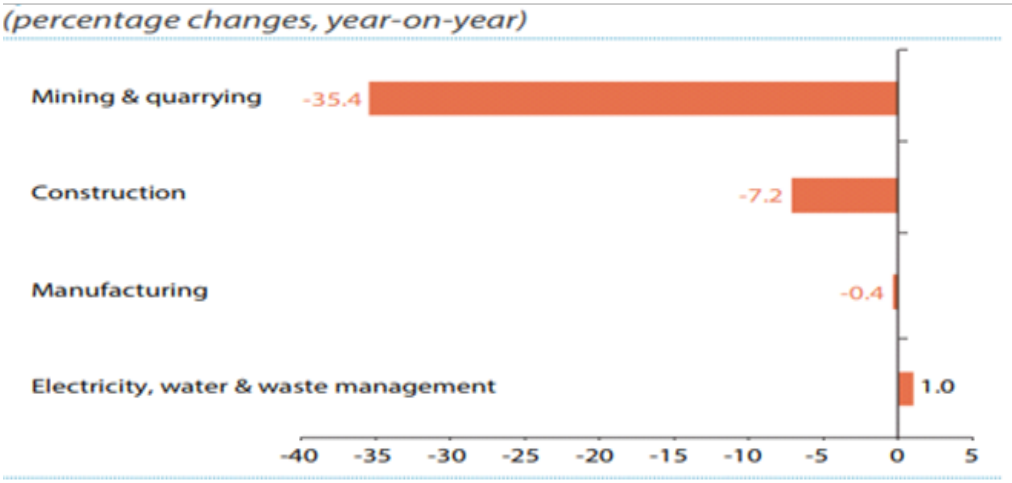
Source: The IPA's research for effective COVID-19 responses (RECOVR) survey analysis on Rwanda.

Effect on manufacturing output

Major industrial sectors contracted, total industrial output fell by 6.4% (year-on-year) in the first quarter of 2020 as growth slowed down, followed by a sharp contraction of nearly 19% in the second quarter and of nearly 2% in the third quarter (Figure 18).

The output in light manufacturing (comprising food, beverage, and manufacturing of construction materials) dropped by 0.4% in the first three quarters of 2020, reflecting the close linkage with the performance in agriculture and construction, as well as large disruptions in trade and global value chains.

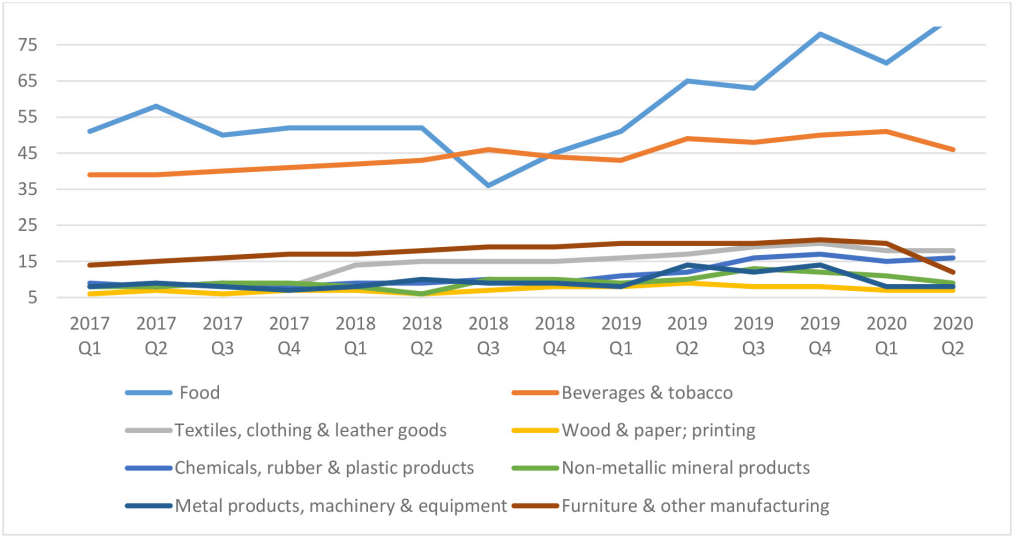
Figure 18: Rwanda's GDP growth, industry – first three quarters of 2020 (percentage changes year-on-year)[12]



Source: NISR

Output from the key manufacturing sectors of food decreased in the first quarter of 2020 compared to the last quarter of 2019, while total output increased in second quarter of 2021, showing signs of recovery. Total output from the beverages & tobacco, wood & paper, printing, furniture & other manufacturing dropped in the second quarter of 2020 as indicated in Figure 19.

Figure 19: Rwanda quarterly GDP in the key manufacturing sectors (values in billion Frw)

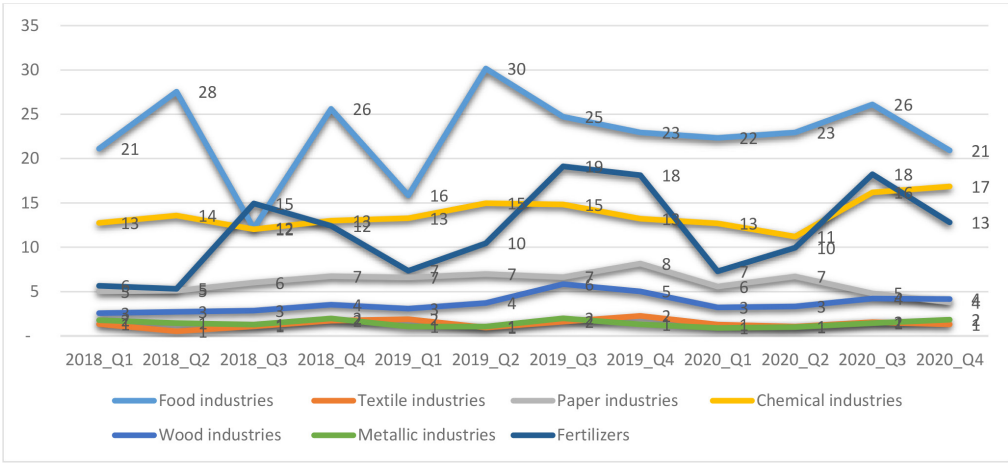


Source: Computed from the National Bank of Rwanda statistics.

Impact on trade in light manufacturing

Imports of intermediate goods for the industries in the sector of food, textiles, paper, wood and fertilizers dropped in last quarter of 2020, implying the manufacturing sector is yet to fully recover. The performances of intermediate imports in the various light manufacturing sectors were as indicated in Figure 20.

Figure 20: Rwanda import values of intermediate goods (CIF values in million USD)



Source: Summarized from the National Bank of Rwanda monthly import statistics.

Tanzania assessment

Tanzania GDP growth rate in the first quarter of 2020 was 5.7% compared to the quarterly average growth rate of 6.7% for 2019 and 7% for 2018. The Q1 GDP growth rate for 2020 was 4.7% compared to the average growth rate of 4.9% for 2019 and 5.8% for 2018.

Tanzania's COVID-19 containment measures were less strict compared to her neighbouring countries that imposed lockdowns and travel restrictions. The assessment was based on secondary data obtained from the Central Bank of Tanzania in terms of international trade performance and GDP statistics to understand the level of output prior to COVID-19 period and post COVID-19 period.

Understanding COVID-19 impact on international trade in relation to manufacturing

In terms of the broader classification, machinery and intermediate goods imports dropped in Q2 and increased in Q3 (Table 6).

Table 6: Selected Tanzania imports critical for manufacturing (values in million USD)

	Machinery	Intermediate Goods	Industrial Raw Materials
Q1_2018	327.3	625.4	196.2
Q2_2018	340.3	596.6	202.6
Q3_2018	352.0	671.7	183.0
Q4_2018	425.8	724.6	193.4
Q1_2019	423.0	575.0	141.6
Q2_2019	442.7	657.9	196.4
Q3_2019	434.8	711.1	208.1
Q4_2019	349.5	718.0	195.9
Q1_2020	398.0	662.0	178.2
Q2_2020	324.5	374.6	179.8
Q3_2020	407.7	611.2	201.5

Source: Computed from the monthly import statistics from the National Bank of Tanzania.

Tanzania 2020 quarterly exports of manufactured goods declined in Q2 compared to Q1 due to the COVID-19 pandemic and the restrictive containment measures that curtailed the buying power from foreign markets. The details are indicated in Table 7.

Table 7: Tanzania selected manufactured exports (values in million USD)

	Manuf-actured Goods	Cotton Yarn	Manu-factured Coffee	Manu-factured Tobacco	Sisal Products	Other Manu-factured Goods
Q1_2018	166.3	4.4	0.0	4.5	5.2	152.2
Q2_2018	245.4	5.0	0.1	4.4	5.2	230.7
Q3_2018	257.4	15.8	0.9	5.9	6.1	228.7
Q4_2018	225.1	3.6	1.0	6.7	4.8	209.0
Q1_2019	220.7	0.6	0.0	8.0	9.3	202.8
Q2_2019	201.2	3.0	0.1	4.8	5.4	187.8
Q3_2019	200.2	1.8	0.0	6.6	5.5	186.3
Q4_2019	183.1	1.4	0.0	5.1	3.6	173.0
Q1_2020	220.3	2.7	0.2	4.6	6.2	206.5
Q2_2020	190.6	1.2	0.2	3.7	3.3	182.2
Q3_2020	268.7	1.5	0.4	5.1	6.5	255.1

Source: Computed from the monthly export statistics from the National Bank of Tanzania.

Uganda assessment

COVID-19 is taking its toll on Ugandan businesses. According to the Ministry of Trade and Cooperatives (MoTIC), 4,200 companies across the country have shut down as a result of the ongoing COVID-19 lockdown, and only 215 industries/factories, especially those producing essential commodities, are still operating.[13] The 4,200 companies that have since shut down could not maintain the workers and the required Standard Operating Procedures (SOP) that were issued by President Museveni and the ministry of health if the factories were to keep staff on site in order to continue operating during the lockdown.

Impact on trade in light manufacturing

Total imports for Uganda in the COVID-19 period (that is, Q3 and Q4 of FY2019/20) dropped from US$1,520.59 billion to US$1,246.7 billion.

Analysis of the selected light manufacturing imports during COVID-19 period (quarters 3 and 4 of FY2019/20) and the easing of restriction period (FY2020/21) follows.

Light manufacturing imports under the selected sectors of animal and animal products, prepared foodstuff, beverages and tobacco, chemical and related products, plastic, rubber and related products, wood and wood products, textile and textile products and base metals and their products declined in quarter 4 in comparison with quarter 3 imports of FY2019/20 as indicated in the Table 8.

Table 8: Uganda quarterly import analysis

		Animal & Animal Products	Prepared Foodstuff, Beverages & Tobacco	Chemical & Related Products	Plastics, Rubber, & Related Products	Wood & Wood Products	Textile & Textile Products	Base Metals & their Products	Total
Q1	17/18	6.70	46.93	133.59	66.36	35.78	42.75	89.13	1,052.62
Q2	17/18	7.55	59.38	143.85	79.12	35.03	46.71	85.83	1,193.38
Q3	17/18	8.27	50.37	145.06	89.42	36.98	53.24	113.26	1,211.78
Q4	17/18	9.76	43.91	126.85	92.86	35.11	44.95	111.26	1,225.29
Q1	18/19	10.97	42.75	149.30	101.09	37.68	56.43	106.89	1,400.56
Q2	18/19	10.44	54.58	141.57	95.32	39.51	58.85	105.42	1,479.64
Q3	18/19	10.26	56.09	145.08	99.55	43.98	57.73	102.83	1,662.03
Q4	18/19	9.91	55.93	135.30	95.59	37.49	58.29	112.40	1,525.05
Q1	19/20	10.38	50.22	126.73	92.99	36.05	58.49	120.87	1,482.24
Q2	19/20	10.07	57.76	152.13	92.22	31.72	69.15	102.86	1,515.31
Q3	19/20	8.75	58.60	148.41	97.28	31.50	59.91	109.26	1,520.59
Q4	19/20	6.74	43.09	124.43	80.85	23.15	30.00	87.96	1,246.70
Q1	20/21	8.77	60.86	167.52	93.53	25.21	58.59	115.52	1,813.33
Q2	20/21	10.94	68.62	165.96	115.80	21.50	74.30	134.06	1,988.01

Note: Q3 of FY2019/20 is the period strict COVID-19 control measures were implemented.
Source: Bank of Uganda.

Uganda exports analysis

For the selected export of light manufacturing sectors, the export volumes for edible fats, plastic products, and beer dropped in the restrictive COVID-19 period, that is, Q1 and Q2 of 2020, while export volumes for cement, sugar, and soap increased as indicated in the Table 9.

- Edible fats and oils volumes exported decreased to 2,187.15 tonnes in Q2 of 2020 compared to volumes of Q1 in 2020.
- Plastic products volumes exported decreased to 3,584.22 tonnes in Q2 of 2020 compared to volumes of Q1 in 2020.
- Beer volumes exported decreased to 5,584.87 million litres in Q2 of 2020 compared to the volumes of Q1 in 2020.

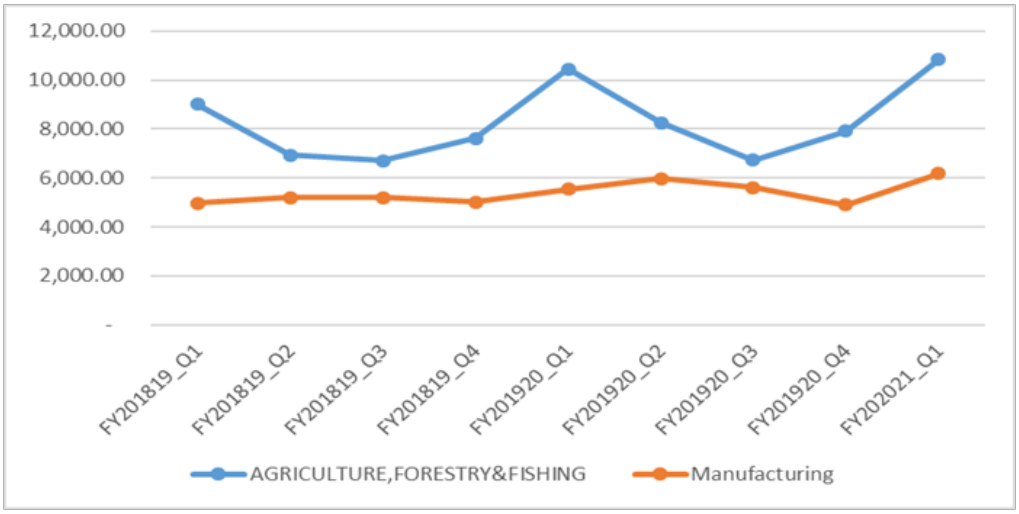
Table 9: Composition of selected light manufacturing exports in Uganda
Volumes (tons unless otherwise stated)

		Cement	Sugar	Edible Fats & Oils	Soap	Plastic Products	Beer (million litres)
	Q3	69,781.44	24,631.06	4,693.00	10,233.05	5,287.56	3,517.56
	Q4	77,831.09	21,107.02	3,663.44	10,697.73	3,692.49	5,712.06
2018	Q1	84,016.19	27,886.90	4,100.35	11,286.15	4,935.82	4,816.78
	Q2	90,707.92	55,100.60	3,471.64	12,232.09	5,347.11	5,066.67
	Q3	92,811.63	56,011.31	3,659.78	10,123.83	5,819.25	5,164.25
	Q4	125,516.08	25,274.23	3,595.36	12,017.71	5,220.37	6,813.50
2019	Q1	124,095.16	29,146.45	3,078.13	10,463.86	5,878.77	5,235.61
	Q2	93,694.03	46,023.31	1,892.43	6,418.15	7,084.17	6,662.46
	Q3	82,897.98	34,906.21	2,592.88	7,010.56	5,089.57	6,096.08
	Q4	93,934.12	40,449.70	2,499.65	5,682.06	5,491.50	8,862.08
2020	Q1	115,154.58	45,108.16	6,132.76	8,526.17	5,440.27	6,871.22
	Q2	137,837.66	50,675.92	2,187.15	8,528.17	3,584.22	5,584.87
	Q3	131,211.33	25,910.16	1,578.19	6,225.09	6,651.07	6,716.74
	Q4	141,507.80	22,528.80	3,078.97	5,972.23	6,166.37	8,538.66

Uganda industrial output analysis

In the period of COVID-19, that is Q3 and Q4 of FY2019/20, a decline was recorded in the value added from the manufacturing sector (Figure 21).

Figure 21: Uganda value added by manufacturing sector: Agriculture, forestry and fishing



Summary from the Uganda national study

During the period of tight COVID-19 restrictions implemented by the government in the second quarter of 2020, Uganda Revenue Authority (URA) conducted a survey to over 1,012 firms registered in the URA database. Out of the 1,012 firm, 6.1% were in manufacturing, representing a total number of 62 firms. The key findings from the survey are indicated as follows.

Financial impact

Cash flow challenges

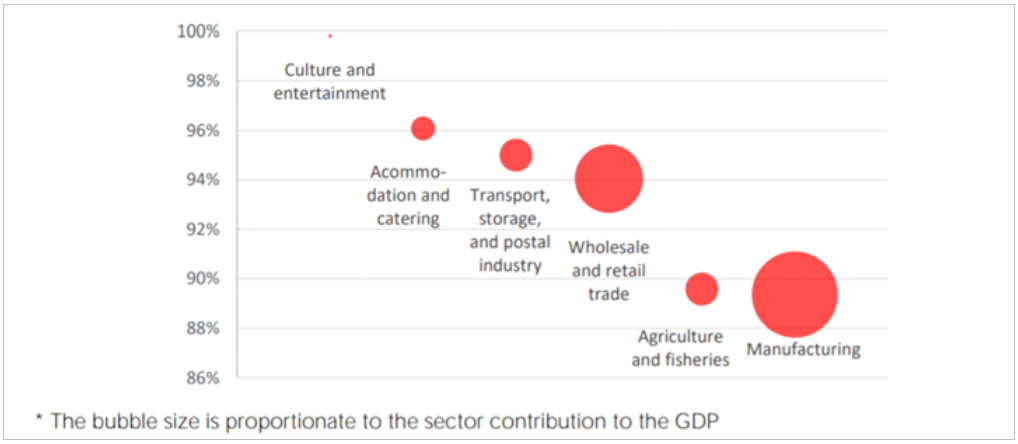
Most of the responding businesses have been affected by the COVID-19 pandemic as their operations contracted and cash flows plummeted. The situation is compounded by their relatively low cash flow coverage. Only about 15% of surveyed companies had sufficient cash flow. Sectors with particularly short cash flow coverage include a variety of traditional and modern industries which operate predominantly on a cash basis. With very few exceptions, over 85% of businesses across all categories will not be able to last beyond three months. Cash flow liquidity challenges affected

the companies' ability to meet their operational expenses like salary and pension payment obligations, tax obligations, and rent.

Revenue expectations

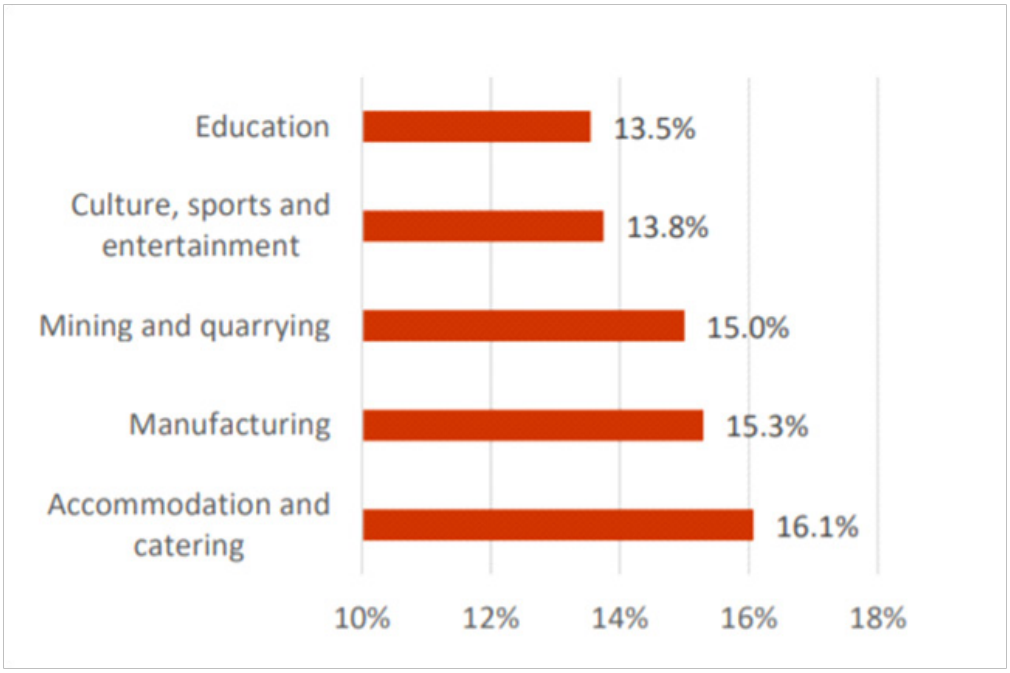
Overall, Ugandan companies were not particularly optimistic about the future. About 91% expect their 2020 revenues to be less than the previous year, 80% expecting the drop to be more than 10% of previous year's revenues (Figure 22).

Figure 22: Expected losses by industry relative to GDP[14] in Uganda



The losses in manufacturing will have a much larger impact due to its high share in the GDP. Absolute revenue losses in percentages are deduced from the revenue loss expectations by industry assuming that the maximum expected loss does not exceed 20%. This assumption is broadly in line with the predictions based on a calibrated model of total economic shock developed by UNCDF and Makerere University (CoBAMS).[15] This model specified the total economic shock based on decomposition of the underlying event (COVID-19) into individual shocks, subsequently calibrated using principal component analysis and microsimulations based on historical and current data. According to the model, the total economic shock varies from 7% for agriculture to 15% for manufacturing to 30% for trading and services over a three-month period of lockdown measures. More details are shown in Figure 23.

Figure 23: Revenue loss by industry, percentage[16]

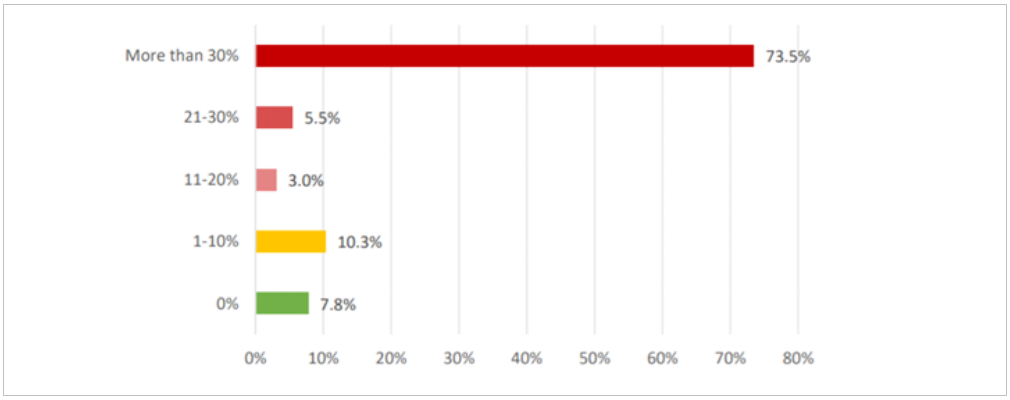


Impact on workforce

Decrease in labour supply

The lockdown had an immediate impact on the workforce by severely restricting their ability to continue their employment because of no public transport or the industries inability to ensure compliance of the working conditions with Standard Operating Procedures (SOPs) issued by the president and the ministry of health that required workers to sleep at factory premises (Figure 24).

Figure 24: Percentage of employees unable to report to work in Uganda[17]



Regional perspective

Overall, COVID-19 containment measures affected the performance of light manufacturing industries within EAC Partner States during the restrictive period from March 2020 to May 2020. Industries not producing essential items faced the following challenges:

- **Financial flow challenges:** Most companies operating within the region are micro, small and medium enterprises and operate on cash basis, strict measures affected the revenue earning ability to maintain stock/inventory since demand was suppressed.
- **Employment related:** Due to restriction of movements, workers could not access the factory premises and non-essential industries operations were limited. Therefore, companies had to restructure the employment terms where casual workers were laid off and professional staff had to get salary pay cuts and others go on leave without pay until when the operations normalize.
- **Supply logistics and operational costs:** Logistical challenges in terms of access to and cost of raw materials from both the domestic market and international market constrained the productive ability. Reduced imports due to the disruption of usual supply chains as well as transportation challenges within the country lead to an increase in the cost of inputs.
- **Reduction of sales/market orders:** Lockdown measures affected aggregate demand that affected the marketing side and limited purchase orders thus affecting company turnovers and sales.
- **Export oriented companies:** The implemented restriction on international movements across borders reduced exports and securing of international markets.
- **Business adaptation and innovation to information, communication and technology solutions:** Companies adapt and innovate, adjusting their business models and using technology innovations. The challenge is to comply with the COVID-19 restriction measures, in particular limited access to the customers. The most popular adaptation measures include the use of digital and communication technologies as well as new procurement/supply delivery channels. The COVID-19 disruption created opportunities for some companies to innovate and expand their production lines into essential goods such as personal protective equipment (PPEs), bedding, sanitizers, disinfectants, immunity boosting products, hospital beds, and ventilators.

Economic measures for the recovery of the economies

As EAC Partner States eased the COVID-19 restrictions from the initial lockdown phase of March to June 2020, the EAC governments attempted to stimulate demand and speed up economic recovery. The economic support mechanisms focused on stimulating demand, especially in sectors hard hit by the COVID-19 restrictions. The respective economic recovery measures instituted by each Partner State are summarized below.

Kenya

a. The government gave tax relief of 100% for people earning gross monthly income of up to Ksh24,000 and reduced Top Income Tax Rate (Pay-As-You-Earn [PAYE]) from 30% to 25%.

b. Kenya reduced taxes to enhance affordability of all products by reducing VAT from 16% to 14%, and increased the earnings and purchasing power of all employees by reducing PAYE.

c. The Kenyan Government reduced the fees for testing of staff by 75%, which is a requirement for businesses.

d. The Kenyan Government decided not to charge for applications for permits by businesses declaring approval of meeting covid-19 standards.

e. Reduction of the VAT from 16% to 14% effective 1st April, 2020; Reduction of the turnover tax rate from 3% to 1% for all Micro, Small and Medium Enterprises (MSMEs).

f. The President also announced a raft of measures to save jobs and by extension the country's economy, including slashed liquidity ratios, lowered interest rates, tax relief to low income earners (earning up to Ksh24,000 ($240), and gave tax cuts to individuals, small businesses, and corporations.

g. The president announced the roll out of an 8-Point Economic Stimulus Programme, amounting to a total of Ksh53.7 billion. The eight focus areas are: infrastructure, education, SMEs, health, agriculture, tourism, environment and manufacturing.

Rwanda

a) Monetary and Financial Sector support during COVID-19

   i. Easing loan payment to borrowers affected or to be affected by COVID-19.

   ii. Introduction of an extended lending facility.

iii. Rediscounting of the existing treasury bonds and reduced the reserve requirement ratio to allow for more liquidity to support the businesses.

iv. Removal of charges for online bank services.

b) Fiscal Policy related measures

i. Suspension of tax audits and post-clearance to reduce pressure and physical interactions with taxpayers for a period of one month.

ii. Extension for financial statement certification for two months.

iii. Suspension of required 25% down payment for outstanding tax admissible for amicable settlement for one month.

iv. Encouraging the use of online services including mobile declaration and payment as well as call centre and email used to send messages or requests for quicker facilitation.

c) Established an Economic Recovery Fund (ERF) to support businesses adversely hampered by Covid-19.

Tanzania

a) Bank of Tanzania lowered statutory minimum reserves (SMR) requirement from 7% to 6%.

b) Bank of Tanzania reduced discount rate from 7% to 5%.

c) Bank of Tanzania reduced government cuts from 10% to 5% for treasury bills, and from 40% to 20% for treasury bonds.

d) Mobile money operators increased daily transaction limit from Tsh3 million to Tsh5 million and daily balance from Tsh5 million to Tsh10 million.

Uganda

a) Fiscal policy related measures

The Uganda Revenue Authority (URA) put in place measures of a tax administration nature to support taxpayers in meeting their obligations during this unprecedented time. These included;

i. Extension of time for two months from 31 March 2020 to 31 May 2020 within which to file corporation tax returns for September year ends;

ii. Extension of time from 15 April to 30 April within which to file the March 2020 monthly returns of PAYE, VAT, Local Excise Duty, Withholding Tax and Lotteries and Gaming returns.

iii. Deferment of tax payments due in March and April 2020 under instalment arrangement MOU's to May 2020.

iv. Waiver of penalty and interest upon voluntary disclosure. Any taxpayer who made voluntary disclosure during the months of March and April 2020, and paid the principal tax, had their penalty and interest remitted in accordance with the law.

v. Encouragement of use of online services. Most services are online and some staff were in the office to facilitate tax payers.

b) Monetary policy related measures

i. Repayment holidays for a maximum of 12 months, loan tenor extensions, and any other forms of debt restructuring covered in existing regulations. These credit reliefs were only granted within a 12-month period with effect from April 01, 2020.

ii. The prepayment of arrears as a condition for restructuring a credit facility was suspended for 12 months with effect from April 01, 2020.

Employment related measures

i. In support of the Government of Uganda's interventions to combat the effect of COVID-19, the National Social Security Fund (NSSF) put in place measures to ease the cash flow burden of affected employers/businesses in the private sector.

ii. In its notice, NSSF indicated that with effect from 31st March 2020, it will allow Ugandan businesses facing economic distress to reschedule their NSSF contributions for three months without accumulating penalty.

5. Key recommendations

Manufacturers are concerned, not only with the immediate impact of COVID-19 and recovery in the short run, but also with the longer-term economic development needs and business resilience and capacity to deal with future similar shocks. Solutions should not be about short-term fixes but should look towards manufacturing sustainability beyond COVID-19. Economic recovery in the manufacturing sector should aim to support the manufacturers to withstand future shocks and secure alternative raw materials/input sourcing, especially in the domestic and regional markets of COMESA, EAC, and now the AfCFTA.

Design and development of a comprehensive and coordinated cross-border policy response to COVID-19 and any future shock is paramount for the survival and development and graduation of light manufacturing into sophisticated manufacturing. Domestic policy response frameworks must converge into a regional framework to avoid the creation of non-tariff barriers that may arise from the domestic health related interventions that fail to balance trade and economic interests like promoting the regional integration spirit.

Policy measures to stimulate manufacturing economic recovery

Governments should consider adopting cross-cutting fiscal measures to stimulate productivity and limit company financial distress in terms of insolvency and layoffs. Some of the cross-cutting economic measures identified from the analysis and survey findings are:

- Government economic stimulus package to support recovery of the manufacturing sector: this stimulus support structure may be administered through state-owned development finance institutions to offer affordable working capital, establishing special refinancing schemes in commercial banks at lower interest rates and governments giving loan guarantees to reduce business and financial risks to commercial banks.
- Fiscal policy support mechanism: should target the tax structure system to minimize the tax obligations and reduce pressure arising from tax liabilities. This

calls for extensions/deferrals with no penalty to tax liabilities and reductions of income taxes especially the profit taxes.

- Expedite payment of outstanding VAT and other tax refunds to manufacturing companies to increase their cash flow.
- Easing loan repayment obligations: for example, deferring loan repayments, interest free, and flexibility options to restructure commercial loans multiple times.
- Increase private sector role in the design of key specific interventions to support manufacturing: The private sector role and participation can address some of the identified NTBs and enhance trade facilitation.
- Private sector umbrella associations at regional and national level (that is EABC, umbrella manufacturing/private related associations) should play an active role in lobbying and engaging government to engineer tailored specific interventions that are peculiar to their needs.

Employment related

These could be based on the implemented economic measures, like the Kenyan tax relief of 100% for people earning gross monthly income of up to Ksh24,000 and reduction of top income tax rate (PAYE) from 30% to 20%, and Uganda's case of rescheduling of NSSF contributions for longer period say six months to a year without accumulating penalty. These measures could take a regional perspective and encourage all the EAC Partners States to implement them.

Transparency and improved information asymmetry on identifying the beneficiaries for the economic recovery

Private sector involvement in the design of the economic recovery programmes has been limited, the existing recovery economic programme design was public/government centred. Frameworks that encourage inclusivity and ownership must be the way to go, since private sector knows its problem. Criteria for access must be developed and published to improve on information asymmetry. Regional and coordinated approach in developing support and rebound strategies for the manufacturing sector must be adopted.

Promote digitalization and e-commerce usage

Need to expedite the development of a regional digitalization and e-commerce strategy to increase the uptake of e-commerce and online services. The umbrella private sector organization (EABC) should lead the advocacy and development of a private sector strategy to circumvent the challenges of physical contact shopping in periods of shocks and pandemics. Digitalization will increase the marketing outreach.

6. Policy options

The policy options to boost and stimulate the recovery of light manufacturing within the EAC are broadly categorized into the following areas:

- EABC, in coordination with national chapters, should spearhead the development a private sector led EAC recovery/rebound strategy that includes the main private sector needs and requirements for production efficiency.
- To boost productivity and operation efficiency of manufacturing companies, governments should increase uptake of locally manufactured products in government projects and programmes.
- With outstanding private arears with government, governments should process letters of credit to local manufacturers indicating the debt obligation and promise of payment.
- Extension of tax relief to end of June 2021 and governments should fast track clearance of VAT refunds to increase manufacturers' liquidity and cash flows.
- The private sector should engage in the negotiations of eliminating the existing non-tariff barriers; EABC, in coordination with national chapters, should engage at bilateral private to private level to identify and coordinate with their respective governments the elimination mechanism.

7. Conclusion

The study assessed the impact of COVID-19 pandemic on light manufacturing within the EAC Partner States. At the EAC regional level, interventions to industrialize the region are in place and the role of manufacturing in terms of its share to GDP is about 20%. Manufacturing plays a crucial role in employment creation and transforming the EAC economies from being agro economies into industrialized ones.

With the new variants of COVID-19 mutating in the world, the crisis continues with some countries entering the third wave, while in EAC, the second is expected. The EAC manufacturing companies must navigate through by implementing risk mitigation strategies to minimize the looming recessions and slowdowns that may result from second and third waves of the COVID-19 pandemic.

The major key business indicators that were negatively affected during the lockdown period (March to June 2020) included reduction in total turnover, revenues, and productivity, and increase in operating costs; but starting from the third quarter of 2020, productivity steadily improved, but is not yet to the levels before COVID-19.

The manufacturing sector recovery needs continuous government interventions that guarantee inflows of cash by reducing the existing financial burdens (from financial institutions and tax obligations) and improve the access of affordable capita.

Notes

1. WHO Africa Regional Office Statement, accessed on 10th April 2021. At https://www.afro.who.int/news/less-2-worldscovid-19-vaccines-administered-africa

2. https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#K Accessed, 30 March 2021.

3. Mukhisa Kituyi, Secretary General, UNCTAD, "Global trade value chains, taxation and recovery" Accessed, 26 March 2021.
At https://unctad.org/news/covid-19-global-trade-value-chains-taxation-and-recovery

4. Last date of reporting was in May 2020

5. Adopted from the UNECA et al study: Waving or Drowning? The Impact of COVID-19 Pandemic on East African Trade, pg 1.

6. Available figures for Tanzania are up to 2017.

7. https://www.aljazeera.com/news/2020/7/6/phased-reopening-in-kenya-after-months-long-coronavirus-lockdown

8. https://www.garda.com/crisis24/news-alerts/348946/kenya-authorities-announce-extension-of-lockdown-measures-untiljuly-6-update-23

9. https://www.garda.com/crisis24/news-alerts/331191/kenya-authorities-to-lock-down-mandera-county-as-of-april-9-update-14

10. Kenya National Bureau of Statistics Economic Survey, 2020.

11. Nil Quantities as recorded by the Central Bank of Burundi statistics in the Burundi production des principales industries_2

12. Adopted from the World Bank report (January 2021), Rwanda Economic Update. Protect and Promote Human Capital in a Post-COVID-19 World, Edition No. 16, pg 6.

13. Mukhaye, D. 2020. "4,200 companies close over Covid-19 lockdown". Uganda Daily Monitor, 22 April 2020.

14. Adopted from the report of Uganda Business Impact 2020, “Impact of COVID-19 on formal sector small and medium enterprises”.

15. UNCDF and Makerere University (CoBAMS). Impact of COVID-19 on Ugandan MSMEs: Informal Sector.

16. UNCDF and Makerere University (CoBAMS). Impact of COVID-19 on Ugandan MSMEs: Informal Sector, pg 14.

17. UNCDF and Makerere University (CoBAMS). Impact of COVID-19 on Ugandan MSMEs: Informal Sector, pg 15.

References

African Development Bank (ADB). 2020. “The economic impact of the COVID-19 outbreak on developing Asia”. ADB Brief No.128.

Andrew, M. and M. Anthony. 2020. “The impact of the COVID-19 crisis on trade: Recent evidence from East Africa”. Policy Brief. Africa Growth Initiative at Brookings, July.

Badkar, M. and B. Greeley. 2020. “New data shows vast scale of US economic breakdown”. *Financial Times*. Accessed, April 15, 2020. At https://www.ft.com/content/6361247d-a1df-4a50-b0aa-59395801b3f3

Baldwin, R. and B. di Mauro. 2020. “Introduction”. In R. Baldwin and B. di Mauro, *Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes.* A CEPR Press VoxEU.org eBook.

Chukwuka, O. and A. Ekerushe. 2020. “Understanding the impact of the COVID-19 outbreak on the Nigerian economy”. Blog article, Focus in Africa.

Goshu .D, Ferede. T, and Ekerushe 2020. “Economic and welfare effects of COVID-19 and responses in Ethiopia: Initial insights”. Policy Working Paper No. 02/2020.

Heiland . I and Karen-Hellen. U 2020. “An unintended crisis: COVID-19 restrictions hit sea transportation.” At https://voxeu.org/article/covid-19-restrictions-hit-seatransportation

Hinh T, Vincent P, Vandana C and Frances C 2012. Africa Development Forum, Light Manufacturing in Africa. Targeted Policies to Enhance Private Investment and Create Jobs. World Bank Publication.

International Labour Organization (ILO). 2015. STED Programme Study on Cambodia Light Manufacturing.

Kapata, N., C. Ihekweazu, F. Ntoumi, T. Raji, P. Chanda-Kapata and P. Mwaba. 2020. “Is Africa prepared for tackling the COVID-19 (SARS-CoV-2) epidemic? Lessons from past outbreaks”. Ongoing Pan-African public health effort.

Kituyi, M. 2020. “Coronavirus: Let's keep ships moving, ports open and cross-border trade flowing”. United Nations Conference on Trade and Development (UNCTAD). At https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2311

KPMG. 2020. Estimating the Potential Impact of COVID-19 on the Australian Economy.

McKibbin, W. 2020. *Global Macroeconomic Implications of COVID-19: Seven Scenarios.* Economy, KPMG Economics.

Mold, A. and A. Mveyange. 2020. “Trade in uncertain times: Prioritizing regional over global value chains to accelerate economic development in East Africa”. Africa in Focus, Brookings Institute. At https://www.brookings.edu/blog/africa-infocus/2020/04/15/trade-in-uncertain-times-prioritizing-regional-over-global-value-chains-toaccelerate-economic-development-in-east-africa/

Nkengasong & Mankoula,2020. "Looming threat of COVID - 19 infection in Africa: act collectively, and fast". The Lancet, Vol 395, Issue 10227, Pgs 841−842

Okechukwu. O, S. Ramesh, C. Fiona, P. John, W. David and S. Konstantinos. 2020. "Manufacturing in the time of COVID-19: An assessment of barriers and enablers". *IEEE Engineering Management Review,* 48(3).Pgs 167 −175

Ozili, P. 2020. "Financial inclusion research around the world: A review". Forum for social economics, 1-23.Available at SSRN: https://ssrn.com/abstract=3515515 or http://dx.doi.org/10.2139/ssrn.3515515

PWC. 2020. Impact of Coronavirus on Uganda's Economy.

Sohrabi, C., Z. Alsafi, N. O'Neill, M. Khan, A. Kerwan and A. Al-Jabir. 2020. "World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19)". *International Journal of Surgery* Vol 76 (2020) 71−76

Taleb, N.N., J. Norman and Y. Bar-Yam. 2020. "Systemic risk of pandemic via novel pathogens - Coronavirus: A note". New England Complex Systems Institute, Cambridge, MA, USA. At http://arxiv.org/abs/1410.5787

United Nations Economic Commission for Africa and Trademark East Africa report,2021. Waving or Drowning? The Impact of COVID-19 Pandemic on East African Trade, pg 1

United Nations Conference on Trade and Development (UNCTAD). 2020. *Global Trade Impact of the Coronavirus (COVID-19) Epidemic.* Geneva, Switzerland: UNCTAD.

Velavan, T. and C. Meyer. 2020. "The COVID-19 epidemic". *Trop Med Int Health*, Vol 25(3):278−280

World Bank. 2021. Rwanda Economic Update. Protect and Promote Human Capital in a Post COVID-19 World. The World Bank Report, Edition No. 16.

Annex

Questionnaire

EAST AFRICAN BUSINESS COUNCIL

QUESTIONNAIRE

IMPACT OF COVID-19 ON LIGHT MANUFACTURING (PRODUCTION/PROCESSING, DISTRIBUTION AND EXPORT) IN THE EAC

Background

East African Business Council (EABC) in collaboration with The African Economic Research Consortium (AERC) formed a Trade Technical Group on "Strengthening Trade Data Tracking and Analysis; Rapid Impact Assessments; and Private-Public Sector Consultation and Dialogue," under the AERC COVID-19 pandemic response in the East African Community project. This project aims to undertake a regional study on the impact of COVID-19 on trade, with a focus on manufacturing, tourism, and agriculture in East Africa.

In the effort to manage the spread of COVID-19 pandemic, the East African Partner States have put in place control measures that restrict public and social gatherings, regulate public and private transport, closed borders to international arrivals and departures, social distancing, scaling down public services, and regulating inbound and outbound cargo movement.

The East African economies rely on the global economies for their economic survival, the closure affected tourism income inflows and disruption of the supply chains since they source raw materials from Asia and Europe.

These measures are inevitably having a negative impact on manufacturing productivity and international trade flows movement, yet international trade must continue flowing in order to allow the populations and industries to access essential supplies and raw materials that may not be fully available in their countries. The impact permeates through to all those involved in the trade and manufacturing sectors; these include the luggage carriers, small cross-border women traders, subsistence farmers, mobile money operators, and industrialists, among others.

This questionnaire is a first step towards gathering relevant information on measures taken by the EAC Member States to mitigate against the COVID-19 pandemic and assess preliminary impact of COVID-19 on light manufacturing (production/processing, distribution and export) in the EAC. East African Business Council, therefore, requests your support and indulgence in providing answers to ALL questions contained in this questionnaire. Your support and facilitation will be highly appreciated.

Please read the following instructions.

PLEASE ANSWER THIS SURVEY IN SO FAR AS POSSIBLE

The questionnaire has been divided into six sections.

1. Your information
2. Economic related impacts
3. Trade related impacts
4. Fiscal policy measures
5. Financial and monetary policy related measures
6. Other measures

Section 1 – Details About Respondent

(i). Name:

Organization:

Position:

Email:

(ii) Company line of business:

Size of the company (MSME or large company):

Products produced:

Section 2 – Economic Related Impacts

This section covers the economic impacts of COVID-19 in your host country's economy, covering impacts on your production, employment, operating environment, ability to meet tax obligations, ability to supply and meet consumer demand.

1 Please summarize any recent revisions to your operating environment done by your sector/company to mitigate the COVID-19's challenges to remain in production and meet your customer needs.

……
……
……
……
……
……
……
……
……

2 Please summarize any recent adjustments to your production as a result of incorporating COVID-19's impacts, including the original growth estimates, employment levels, output production, cost adjustments and revenue estimates.

……
……
……
……
……
……
……
……
……

3 What measures restricting the movement of individuals have been introduced?

Please consider a wide range of individuals, taking into account different forms of employment, unemployment and those outside the labour market, including vulnerable groups.

	Yes	No	Not Applicable
Stay-at-home working policies			
Reductions in public transport services			
Restrictions on inter-regional travel			
Other enforced restrictions against unnecessary travel			
Restrictions on seasonal migrant workers			
None			

4 If yes to any of the above, are there exemptions for specific essential or critical sectors?

a Yes

b No

5 (a) If your answer is yes to 4 above, list the sectors that have been exempted, and roughly estimate the production/output levels.

Sector	Production/Output Contribution

6. Have exemptions been relaxed or tightened since first introduced?

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

7. Have there been any notable impacts on consumer behaviour?

Aspect	Yes	No	Not Applicable
Increased stockpiling of essentials			
Increased purchases online			
Increased purchase orders (on site of the company/ agent)			
Reduction in purchases of non-essentials			
Other			

8. If yes to any of the above, please provide a summary of how consumer behaviour has changed. Please specify which option(s) you are referring to in your answer.

Aspect	Change in Behaviour

9 Have there been any notable business impacts, according to the following conditions?

	Yes	No	Not Applicable
Increases in bankruptcy/ entities entering administration			
Changes to business models (e.g., reduced operating times or physical presence, changes in product choice), work force reductions, down-sizing			
Changes to funding structures (e.g., withdrawal of dividend pay-outs, loan repayment holidays, utilization of policy support measures)			
Other (please provide detail below)			

10 *If yes to any of the above, please summarize the business impacts here and identify which sectors you are referring to. Please specify which option(s) you are referring to in your answer.*

……
……
……
……
……
……
……
……
……

Section 3 - Trade Related Impacts

11. Broadly, which domestic supply chains have been affected in your respective country or territory, and how? For example, factory closures in one part of the region affecting flow of goods to downstream producers.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

12. Broadly, which cross-border supply chains have been affected in your respective country or territory, and how? For example, domestic exporters/importers being affected by failures of international factories to procure/purchase.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

13. Broadly, state any trade restrictive measure/non-tariff barrier (NTB) your company/sector has faced in the due process of exporting? Please elaborate on the trade restrictive measure/NTB you have experienced and which is the imposing country?

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……..

14. Has the COVID-19 pandemic increased NTBs/trade restrictive measures your company/sector faces in the export market? If yes, please elaborate on the COVID-19 trade restrictive measure/NTB you have faced in the exporting market?

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……..

15. Is the slowdown in the economy resulting in a political economy shift, particularly with respect to trade policy or openness? Please indicate whether you are referring to changes in trade policy, trade openness or other shifts in your country's political economy.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……..

16. Has your host country introduced any export restrictions on non-essential goods?

    - Yes
    - No

17. If so, please provide a summary of what restrictions have been applied.

    ……
    ……
    ……
    ……
    ……
    ……
    ……

……
……
……
……..

18. Has your country adopted any joint cross-border trade measures within the EAC/COMESA arrangements?

- Yes
- No

19. If yes, explain which measures and what has been the effect with respect to the 2019 share of your Country's trade in EAC/COMESA.

……
……
……
……
……
……
……
……
……
……
……

Section 4 – Fiscal Policy Measures

This section covers what measures authorities in your host country have taken to support individuals, small/large scale producers and the wider economy.

20. Have any fiscal measures been announced to support individuals?

This could include increases to welfare payments, cash transfers or tax deferrals for workers, the self-employed or unemployed as well as services-in-kind such as food handouts and childcare.

- Yes
- No

21. Please summarize what measures have been taken to support individuals, including the total size of the package. If possible, express figures.

……
……
……

……
……
……
……
……
……
……
……
……
……
……..

22. Have any fiscal measures been announced to support small and medium-sized enterprises (SMEs)? Briefly elaborate.

- Yes
- No

23. Please summarize what measures have been taken to support SMEs, including the total size of the package.

……
……
……
……
……
……
……
……
……..

24. Have any fiscal measures been announced to support large firms?

- Yes
- No

25. Please summarize what measures have been taken to support large firms, including the total size of the package.

……
……
……
……
……
……
……
……

26. Have any fiscal measures been announced to support the wider economy?
    - Yes
    - No
27. Please summarize what measures have been taken to support the wider economy, including the total size of the package.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

28. Have any fiscal measures been announced to support the trade and supply chains?
    - Yes
    - No
29. Please summarize what measures have been taken to support trade and supply chains, including the total size of the package.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

Section 5 – Financial and Monetary Policy Measures

This section covers actions by the central bank and financial regulatory authorities.

30. Have any of the following monetary stimulus or exchange rate measures been announced?

	Yes	No	Not Applicable
Interest rate cuts			
Money supply			
Quantitative easing/asset purchases			
Exchange rate measures			
Other			

31. If yes to any of the above, please briefly summarize what actions have been taken.

Please provide the previous interest rate or scale of asset purchases for comparison if applicable.

Aspect	Action Taken

32. Has any support been offered to the banking sector or wider financial sector?

	Yes	No	Not Applicable
Loosening capital, liquidity or other regulatory requirements			
Provision of additional liquidity facilities			
Permission to defer loan payments, waive fees			
Deferral of new regulatory measures			
State-backed loan guarantee			
Reduced reporting and supervisory examination requirements			
Other			

33. Overall, what has been the manufacturing/company responses to the announcements?

……
……
……
……
……
……
……
……
……
……
……

Section 6 – Other Economic Policy Measures

This section is open to your discretion but could refer to emergency measures, relaxing export restrictions, tax reporting measures or changes to foreign investment screening regimes.

34. Have any other economic measures been recently announced to support individuals?
    - Yes
    - No
    - Not applicable
35. Please summarize what other measures have been taken to support individuals.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

36 Have any further economic measures been recently announced to support SMEs?
    - Yes
    - No
    - Not applicable
37. Please summarize what other measures have been taken to support SMEs.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

38. Have any further economic measures been recently announced to support large firms?
    - Yes – if yes, respondent must answer question 36
    - No
    - Not applicable
39. Please summarize what other measures have been taken to support large firms.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
40. Have any further economic measures been recently announced to support particular industries or sectors?
    - Yes – if yes, respondent must answer question 38
    - No
    - Not applicable
41. Please summarize what other measures have been taken to support particular industries or sectors.

    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……
    ……

42. Please summarize and recommend policy measures that can be pursued by the public/private sector to stimulate manufacturing output or support particular industries or sectors.

……
……
……
……
……
……
……
……
……
……
……
……..

Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

www.aercafrica.org

Learn More

www.facebook.com/aercafrica

www.instagram.com/aercafrica_official/

twitter.com/aercafrica

www.linkedin.com/school/aercafrica/

Contact Us
African Economic Research Consortium
Consortium pour la Recherche Economique en Afrique
Middle East Bank Towers,
3rd Floor, Jakaya Kikwete Road
Nairobi 00200, Kenya
Tel: +254 (0) 20 273 4150
communications@aercafrica.org