

EFFECTS OF COVID-19 ON FOOD SECTOR AND SUPPLY CHAINS

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Abstract

COVID-19 has imposed a series of unique challenges on food service sectors in India. The current outbreak has had severe economic consequences across the globe, and it does not look like any country will be unaffected. This not only has consequences for the economy; all of society is affected, which has led to dramatic changes in how businesses act and consumers behave. The COVID-19 outbreak is a sharp reminder that pandemics, like other rarely occurring catastrophes, have happened in the past and will continue to happen in the future. Even if we cannot prevent dangerous viruses from emerging, we should prepare to dampen their effects on society. In this difficult situation, Humans try their best that they do not run out of food supplies. The fast spread of COVID-19 has caused nation and organization's across the world to take emergency action in the interest of health. The food industry is susceptible to experiencing a fuel impact from the global outbreak and climate change.

Keywords: Food sector, economy, COVID-19, health

INTRODUCTION

The COVID-19 pandemic has placed unprecedented stresses on food supply chains, with bottlenecks in farm labour, processing, transport and logistics, as well as momentous shifts in demand. Most of these disruptions are a result of policies adopted to contain the spread of the virus. Food supply chains have demonstrated a remarkable resilience in the face of these stresses. Grocery store shelves have been replenished over time, as stockpiling behaviour disappeared and as supply chains responded to increased demand. Long lines at borders shrank quickly in response to policies to alleviate unnecessary restrictions. While the impacts of COVID-19 are still unfolding, experience so far shows the importance of an open and predictable international trade environment to ensure food can move to where it is needed. The biggest risk for food security is not with food availability but with consumer's access to food: safety nets are essential to avoid an increase in hunger and food insecurity.

The COVID-19 pandemic introduced unexpected stresses on food systems, creating many immediate challenges. Yet what is remarkable is the speed with which supply chain actors have to date been able to reorganise themselves to ensure the continued availability of food, at least in the developed world. Some bottlenecks remain, and some new disruptions may emerge as COVID-19 continues to spread. The rapid response of food supply chains has underscored the importance of an open and predictable international trading environment, which allows firms to tap into new sources of supply when existing sources are compromised. Policy makers have also so far mostly avoided the mistakes made during the food price crisis of 2007-8, and have also taken a range of other steps which have helped ensure the continued functioning of food supply chains.

COVID-19 has placed unprecedented stresses on food supply chains. COVID-19 has imposed shocks on all segments of food supply chains, simultaneously affecting farm production, food processing, transport and logistics, and final demand. Not all sectors and products have been equally affected, and different products have experienced disruptions at different stages of the supply chain.

Farm production faces bottlenecks for some inputs. Farm production has been affected by bottlenecks for inputs, most notably labour. Some farm sectors are more dependent on (seasonal) labour than others: fruits and vegetables are more labour-intensive, while cereals and oilseeds typically require less labour. Limits on the mobility of people have reduced the availability of seasonal workers for planting and harvesting in the fruit and vegetable sector in many countries. (OECD, 2020)

In addition to farm labour, other important inputs are seed, pesticides, fertilisers, and energy. While seed shortages have not been a major problem to date, there is a risk of disruption in the coming months. The seed sector is highly globalised, and seed can travel through several countries for multiplication, production, processing and packaging. Most seed needed for the March, April and May sowing period had arrived before travel restrictions were put in place. But it remains to be seen whether seed for the next growing seasons will arrive in time. (OECD, 2020)

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Seed is also often transported by air, a mode of transport which has been severely disrupted. Concerns were also initially voiced regarding the availability of pesticides, for which China is a major supplier. As China emerged from lockdown, these concerns appear to have waned. Supplies of fertilisers and energy have been relatively less disrupted, and prices for major fertilisers are relatively low (including due to the falling oil price as production of some fertilisers is energy intensive). Global availability of fertilisers is not a bottleneck, although local disruptions have occurred because of transport difficulties.

Processing has been disrupted by labour shortages and shutdowns. COVID-19 has led to disruptions in food processing industries, which have been affected by rules on social distancing, by labour shortages due to sickness, and by lockdown measures to contain the spread of the virus. In confined spaces such as packing plants for fruits and vegetables or meat processing facilities, necessary social distancing measures may reduce the efficiency of operations and there is a need to ensure adequate protections for employees. Many firms have also reported high rates of worker absences; for example, staff availability was reduced by up to 30% in food processing facilities in the regions of the country worst hit by COVID-19.

Some modes of transport have been affected more than others. Bottlenecks in transport and logistics have disrupted the movement of products along supply chains. Broadly speaking, agricultural and food products are transported using three main modes of transport: bulk (ships and barges); containers (by boat, rail or truck) and other road transport; and air freight. Different products use different modes of transport: cereals and oilseeds, for example, are typically shipped in bulk; meat and dairy products are often shipped in refrigerated containers and trucks; and perishable products with a high value-to-weight ratio are transported by air in the “bellies” of passenger planes.

The impact of COVID-19 on these transport modes varies considerably (Schmidhuber and Qiao, 2020). Bulk shipments have not seen any major disruptions, and prices for bulk freight are actually near multi-year lows. However, air freight has been severely disrupted. Global air cargo capacity in the week of 10 to 16 May was 26% lower than during the same period last year, with the largest decline in capacity on routes between Europe and Latin America (with declines of more than 80%). The disruption is caused by the steep decline in passenger air travel, which normally accounts for the majority of air cargo capacity. Disruptions to container and truck transport fall somewhere in-between; the number of container ships is currently 8% below normal due to COVID-19 restrictions such as limitations on crew changes, additional screening, mandatory quarantines, and reduced demand. Commercial road transport in April was about 20% lower than usual in Canada and the United States. In Europe, truck traffic initially fell by more than 50% in Spain, 46% in France and 37% in Italy, although it has subsequently recovered. In mid-April, the total distance driven by trucks in Europe was 24% below normal.

Transport and logistics problems have thus been most pronounced for perishable high-value products, such as fruits and vegetables. The fruits and vegetables sector is also affected by quarantine measures and delays in border inspections (including as the number of import/export inspectors has fallen). By contrast, cereal supplies have not faced major disruptions: bulk transport has been less affected, and cereals can be loaded, shipped and handled with minimal labour input.

Consumer behavior during COVID-19, around the globe, societies are in lockdown, and citizens are asked to respect social distance and stay at home. As we are social beings, isolation may be harmful for us (Cacioppo & Hawkey, 2009). Feelings of loneliness have, among other things, been connected to poorer cognitive performance, negativity, depression, and sensitivity to social threats. There are indications that this is happening during the current pandemic, as there has been an increase in domestic violence, quarrels among neighbors, and an increase in the sales of firearms (Campbell, 2020). However, we have also seen an increase in other, more positive types of behavior caused by social distancing that have not been researched. People have started to nest, develop new skills, and take better care of where they live. For instance, they may learn how to bake, try to get fit, do a puzzle, or read more. There has also been an increase in purchases of cleaning products, and more trash is being recycled. At the same time, we are eating more junk food and cleaning ourselves less. People are also stockpiling essentials, panic buying, and escaping to rural areas. This is an indication that what is happening to us and our behaviors is complex, and it would be interesting to study this phenomenon further. Another consequence of the lockdowns is the extreme increase in the usage of Internet and social media. Previous research has indicated that humans who feel lonely tend to use social media more and, in some cases, even prefer social media over physical interaction (Nowland, Necka, & Cacioppo, 2018). Social media also may bring out the worst in us through trolling or sharing of fake news. This is, to some degree, not as damaging as the “real life” is lived in the physical world and the Internet is an “add on” with, in most cases, limited impact on the physical world. By this, we are able to compartmentalize and distinguish what matters and what does not matter. However, the current situation has made social media the main mode of contacting or socializing with others. In many cases, the Internet is at present also the main way to get essential supplies and receive essential services, like seeing a doctor. The question, then, is what happens to us when the “real life” is lived online and becomes a way to escape the physical world?

As humans, we rely to a large degree on our senses; we are built to use them in all situations of life. Thus, we rely on them heavily when making decisions. However, the current isolation is depriving us of our senses as we

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are not exposed to as many stimuli as normal situation. Thus, we are, in a sense, being deprived of stimulation. We are also being told by authorities not to use our senses; we should not touch anything, wear a mask, or get close to other humans. Thus, what happens once our societies open up? How long will this fear of using our senses linger, and will we be over-cautious for a while or may we try to compensate as we have to some degree been deprived of using them?

Predicted lasting effects, based on past experiences, we have become more conservative and protective after a pandemic outbreak. We save resources in order to be prepared if the unthinkable happens again. Countries are starting to stockpile things like food, equipment, and medicine or prepare to produce them locally. It is also essential for larger global firms to have reliable supply chains that do not break. Consequently, it is very likely that this pandemic will make these firms rethink their supply chains and, probably, move supply chains closer to where they are needed in order to avoid stopping production in the future. Furthermore, authorities have implied that other humans from other countries are dangerous as they may carry the virus. A closed border implies that the threat is from the outside. In addition, international flights are not likely to be an option for many in the coming years. Together, these circumstances mean that countries may become more nationalistic and less globalized. This may be a dangerous development, as long-term protection from the consequences of a pandemic outbreak is likely to require global effort and sharing of resources. Such cooperation is also key to tackle other global challenges that we may face in the future.

ADVICE FOR GENERAL FOOD SAFETY AND FOOD SECURITY

Food manufacturers must follow good hygiene and safety practices to help ensure the consistent quality and safety of their products: (WHO 2020)

1. Purchase raw material from reputable sources
2. Cook food thoroughly and maintain safe holding temperatures
3. Clean and sanitize surfaces (such as cooking boards, refrigerators handles, etc.) and equipment
4. Properly train staff in taking extreme hygiene measures
5. Employees showing signs of infectious illness must not attend work
6. Implement appropriate risk management strategies (e.g., encourage social distancing and endorse online meetings when applicable)
7. Number of staff in a kitchen or food preparation area should be kept to a bare minimum
8. Space out workstations and food preparation areas, when possible
9. Sometimes the foods we love and count on for good health are contaminated with germs that cause sickness and can even be deadly. More progress is needed to protect people and reduce foodborne illness.

NEW CHALLENGES TO FOOD SAFETY WILL CONTINUE TO EMERGE, LARGELY BECAUSE OF

1. Changes in our food production and supply, including more imported foods.
2. Changes in the environment leading to food contamination.
3. Better detection of multistate outbreaks.
4. New and emerging bacteria, toxins, and antibiotic resistance.
5. Changes in consumer preferences and habits.
6. Changes in the tests that diagnose foodborne illness.

FOLLOWING TERMS REQUIRED TO KEEP THE AGRICULTURAL SECTOR AND SUPPLY CHAINS WORKING

1. Government has correct issued lockdown guidelines and farm operation
2. Keeping supply chains functioning well is crucial to food security
3. Farm population protected from COVID-19
4. Small business farmers like poultry , dairy farmer need more help
5. Farmers included in the government assistance package
6. Government should promote trade by avoiding export bans as well as restrictions.

How to minimize the impact of Coronavirus on food security

Avoiding protectionism, monitoring prices and supporting the vulnerable through social safety nets can limit the impact of the outbreak

COVID-19 have Government impacts on food security

The COVID-19 is spreading fast. This is no longer a regional issue is a global problem calling for a global response.

SOME PROBLEMS ARE ARRISING DURING THIS COVID-19 DISEASE LOCKDOWN

1. The pandemic impact on the global economy
2. The pandemic affect food demands
3. The connection between COVID-19 and animals
4. Any risks from interacting with animals or consuming Animal products
5. Food security and livelihoods are most at risk due to the pandemic

The poor will be disproportionately impacted by COVID-19 because

1. The global economic recession will have larger effects on poor people's income and therefore on their food security and nutrition.
2. Among productive assets, COVID-19 will affect mostly labor, poor people's principal asset.
3. COVID-19 will cause more disruptions in private sector value chains in poor countries.
4. COVID-19 will cause disruptions in public sector programs on food, nutrition, health, and poverty, which are more important for poor people.
5. Poor countries have lower economic capacities to compensate for declining incomes.

SUMMARY

Food sector and supply chains are both important economically in India and all the countries. Prior to the COVID-19 crisis, the food retailing sector has been evolving to higher sales through supermarkets and convenience stores, and the food sector has been growing considerably, taking food market share away from food retailing sector. Actions taken under the states of emergency imposed to deal with the pandemic in India and all the countries have changed the reality of food purchasing and the confidence people have in the ability of the food sector system to maintain consistent food and grocery availability. Some reactions by the public, such as increased online purchasing with grocery delivery, will likely be maintained after the pandemic restrictions are over. There are uncertainties about how the public will react after states of emergency are lifted in terms of restaurant visits and the types of foods that will be purchased through food retail sector.

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