

Effects Of Covid-19 on Food Supply Chain

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Abstract

A serious COVID-19 viral epidemic has created a new age on the globe, while we sort out the consequences in all aspects of our daily lives. There is no exception in the food sector and food supply chain. Considering the food supply chain, commercial activities and the supply of various food products have been halted due to a reduction in demand, the closure of food manufacturing facilities, and financial constraints.

Due to Given current issues in the food supply chain, there is growing worry regarding food production, processing, distribution, and demand. COVID-19 caused labour movement limitations, changes in consumer demand, the closure of food manufacturing facilities, restricted food trade laws, and financial constraints in the food supply chain. As a result, governments should make it easier for labour and agricultural products to transfer. Furthermore, small farmers and vulnerable people should be financially supported. By changing safety measures, facilities can improve working conditions while also protecting employees' health and safety. To avoid an increase in food prices, food protectionist policies should be avoided. To summarise, each country must recognise the gravity of the situation and, depending on the development of the pandemic, either tighten or ease its controls. To be able to respond quickly when existing sources are affected, the food supply chain relies on an open and predictable international trading environment. There have been other actions taken by policymakers to guarantee that food supply systems continue to function, including avoiding some of the mistakes made during the food price crisis of 2007-8.

As of this writing, we know how much stress COVID-19 has put on the food supply chain, how these supply systems have responded and how resilient they have remained, and where the remaining bottlenecks are. Copies of the COVID-19 report, as well as this follow-up comment, are available (29 April 2020). Focus here is on food availability and access to food, not on the livelihoods of farmers and other supply chain actors or the environmental or health consequences.... Because of the lack of information on the effects of COVID-19 on developing nations, this note concentrates on OECD countries. Food supply chains in underdeveloped nations are more likely to be affected by the lack of health care, the prevalence of informal work, the lack of efficient logistics channels, and the more labor-intensive nature of farming.

Keywords : Food Supply, COVID-19, Pandemic, Crises.

Introduction

A pandemic was proclaimed on March 11, 2020, by the World Health Organization (WHO), which urged countries to prepare and respond to the disease in accordance with the Global Strategic Preparedness and Response Plan. It is very important to protect and maintain the health of people working in the food supply chain during this time of crisis (FAO and WHO, 2020). However, people who work in the food industry do not have work from home option hence they need to keep their typical office routines (Nicola et al., 2020; FAO and WHO, 2020). The coronavirus has never produced a pandemic before, according to the WHO, and this disease is the first to be caused by a coronavirus. COVID-19 is the most recent pandemic, following the H1N1 influenza viruses of 1918, the H2N2 influenza virus of 1957, the H3N2 influenza virus of 1968, and the H1N1 influenza virus of 2009, which killed an estimated 50 million people worldwide. There is a wide range of industries that will be affected by this outbreak, according to the World Health Organization. As a result, everyone and everything should take part in this fight. To date, the following numbers have been calculated for each region: 9 613.03 for the Americas; 3 694.43 for Europe; 1 136.41 for Asia; 2 167.25 for the Eastern Mediterranean ; 742.75 for Africa; and 173.36 for the Western Pacific region as of August 5, 2020. More than 17 528 confirmed cases and 687.64 deaths per 1 million people have been recorded worldwide, according to the World Health Organization (WHO).

All countries had to take health precautions to be ready for and respond to this pandemic, which are outlined in the WHO's "Strategic readiness and response plan." While developing national and regional operational plans, all national and international partners can benefit from this strategy, which incorporates what we've learnt so far about the virus. In accordance with this strategy, the most important things to do can be broken down into eight categories:

Country-level co-ordination, planning, and oversight;

communication and community involvement in risk management;

- Quick response teams, case investigation, and surveillance
- Points of entry;
- In addition to national labs,

- Infection prevention and control;
- Managing the situation;
- Providing operational and logistical support.

Temporary limits on travel and social gatherings were imposed as a result of these measures' adoption. Nowadays, working from home or participating in meetings online is the norm rather than the exception. Because they are unable to work from home, those employed in the food business are obliged to adhere to their standard working hours.

At this time of crisis, food security is associated with consumers' access to food rather than food availability (OECD, 2020b). Response plans for food workers have been prepared as a result of the COVID-19 crisis in order to provide guidelines for the continuation of operations in food processing plants and to manage coronavirus in the food sector. In the context of food and agriculture, meat and poultry processing enterprises can be regarded as important infrastructure. For the prevention of coronavirus spread among workers and supervisors, the strategy involves a hierarchy of control requirements for cleaning, sanitation, disinfection of facilities, screening and monitoring of workers for COVID-19, management of sick employees, and education programmes.

The food business is no different from other industries when it comes to the effects of the COVID-19 outbreak on the manufacturing industry. The food sector, on the other hand, differs from others in that it creates products that are absolutely necessary to human existence. As everyone is aware, people who work in factories have the potential to hunger if one closes down, but if processors and distribution centres become sick, everyone is at risk. As a result, the food business is a critical part of our economy. Firstly, people tend to have follow a healthy diet for protecting themselves and their immune systems (Rodríguez-Pérez et al., 2020). However, when a pandemic hits, the food industry has a unique set of issues compared to other industries, such as tourism and aviation, that are less vital to daily life. A pandemic might result in a US\$113 billion loss in the aviation industry and a US\$80 billion loss in the tourism industry). Some food producers are struggling to keep up with the rising demand of retailers, while others are working hard to meet the needs of their customers. It was necessary to temporarily shut down numerous enterprises during the current COVID-19 epidemic due of certain unpleasant considerations. Because of this pandemic, several businesses from all over the world have been shown to be interconnected.

Thus, the main objective of this study is to offer information regarding the effects of the COVID-19 in the food supply chain and to summarize the efforts implemented to reduce these effects. Formal and informal sources were employed to acquire information on the food supply chain during COVID-19 epidemic. The contents which were not evaluated by news editor, journal/magazine editor, or scientific editor before they are published online were not used as a supplemental source of information. Most of the content was based on the well-known organizations such as Centres for Disease Control and Prevention (CDC), European Commission (EC), Food and Agriculture Organization (FAO), International Food Information Council (IFIC), International Food Policy Research Institute (IFPRI), International Labour Organization (ILO), International Trade Centre (ITC), The Organization for Economic Co-operation and Development (OECD), and World Health Organization (WHO).

Effects on food supply

Protective measures in the last stages of the food supply chain are critical since more people can be potentially affected as moved towards the last stages (Rizou et al., 2020). Reports showed that using the trucks for food distribution was declined to 60% since the restrictions in France which was 30% before the pandemic (FAO, 2020j; Bakalis et al., 2020).

Due to constraints, farmers were forced to destroy food staples in the field. Many litters of milk are thrown away by dairy producers each day because of the clogged supply system. Tea plants were harmed because of logistical difficulties. When a worldwide catastrophe strikes, the food industry's ability to maintain logistical coherence is critical. Getting resources from suppliers and ensuring that food moves from producers to consumers is the most difficult challenge in the food supply chain (Alonso et al., 2007). To some extent, how pandemic issues affect horticulture systems relies on the type and amount of agricultural inputs used, and this varies with the specific item being shipped. Moreover, the demand for alcoholic products increases after one month of the pandemic announcement (Crisp, 2020). Vacant racks and a decrease in supply have led to an increase in the price of meat products. System use during crises was assured by the COVID-19 outbreak, which had an impact on food supply chain legal obligations. As a result, the supply-demand balance was upset, putting businesses and farmers on the defensive (FAO, 2020b). Financial pressure is building up on the various countries' governments as they spend their money on economic incentives and public assistance programmes. It's possible that a lack of funding will lead to lower demand and output in the agricultural sector. Developing countries' growing private sector would bear the brunt of the decrease in demand. The biggest issues in the food supply chain are obtaining raw materials

from suppliers and ensuring the continuity of food flow from manufacturers to end users (Alonso et al., 2007). The biggest issues in the food supply chain are obtaining raw materials from suppliers and ensuring the continuity of food flow from manufacturers to end users (Alonso et al., 2007).

Economic contraction and resource reallocation to financial incentives and social assistance programmes are also putting financial strain on governments. Because of this, it may be difficult to sustain farm production projects. Over the medium future, it is probable that agricultural production and productivity would decline due to a lack of investment. In developing countries, the decline in demand will have a particularly negative impact on the private sector (FAO, 2020e, 2020h). Due to the COVID-19 disaster, there was a severe shortage of personnel in many traditionally labor-intensive industries, including animal husbandry, agriculture, planting, harvesting, and harvest preparation (Stephens et al., 2020). Farmworker shortages were a problem even before the COVID-19 outbreak. The crisis has reduced the ability of companies and agribusiness to work because of a lack of workers, disease, and physical distance. As a result of these conditions, food and horticulture sources of information are being slowed down and commercial sectors are having difficulty getting constant supply of food. Due to the agricultural change being described as a mechanical progression and upskilling of labour force, due to its time-dependent nature and increasing efficiency requirements over time.

Economic contraction and resource reallocation to financial incentives and social assistance programmes are also putting financial strain on governments. That's why supporting farm productivity-improving programmes could be tough. Agricultural production and productivity may decline in the short-term due to a lack of funding. The decrease in demand will have an especially negative impact on the developing countries' growing private sector (FAO, 2020e, 2020h).

The WHO stated that coronavirus can be transmitted by direct touch or respiratory droplets, but the recent cases at Xinfandi market have raised worries about the spread of coronavirus through food. With more than 10,000 workers and a daily capacity of 18,000 tonnes of vegetables, 20,000 tonnes of fruit, and 1,500 tonnes of seafood, Xinfandi market is Beijing's largest wholesale food market and the city's largest wholesale food market in China (Hua and Cadell, 2020). More than a hundred affected workers have been identified, most of whom work in the seafood, beef, and mutton departments. At the fish market, the coronavirus was found on the cutting board used to cut up the salmon.

Effects on consumers behaviour

In addition, the number of visits to food store and spending money on food in per visit changed (Bakalis et al., 2020; Cranfield, 2020).

There was an unexpected shift in demand from food service to retail as a result of the closure of restaurants and limited service eateries. Purchasing food from supermarkets and using food services had the same percentage of 50% before the outbreak, but supermarkets are almost 100%. The number of trips to the grocery shop reduced, but the amount of money spent per visit increased. During the COVID-19 shutdown, some food items were harder to come by for customers. In European countries, where home-baking is a popular pastime, flour, which is a staple foodstuff, garnered greater attention and was not available on food store shelves. There was a surprising amount of bread and baked goods still on grocery shelves. Dried or canned meals, pasta, milk substitutes, and frozen foods have become increasingly popular with consumers due to their convenience and daily cooking at home. The rise of home baking and the tendency to trust rumours and misinformation led to an increase in the number of people stocking up on these delicacies at home. Social distance and restaurant closures prompted consumers to prefer takeout and delivery options (Bakalis et al., 2020; Shahidi, 2020). As it turned out, the lack of eggs was attributed not just to an increase in demand but also to a lack of retail packaging. Since March 20, egg consumption in Argentina has surged by 40%, and egg sales in the United States have risen by 44%. As a result of a lack of adequately labelled retail packets to meet demand and ease distribution of eggs during the COVID-19 epidemic, the US Food and Drug Administration (FDA) allowed flexibility in packaging and labelling requirements for eggs (FDA, 2020; Mazili, 2020; Reiley, 2020).

A wide range of health and financial issues have been linked to COVID infections. Consumers have modified their eating habits due to a desire to eat healthily while staying within a reasonable price range. As a result, customers have learned a basic technique for returning to their normal diets and beverages, which include elements such as vegetables, fruits and olive oil. Customer concerns regarding COVID-19's impact on mental fitness have prompted many to purchase a product that enhances mental health. CREA (Italian Agricultural Research and Economic Council) reports that during the COVID pandemic quarantine period, food consumption of fruit and vegetables climbed by 29 percent, while that of legumes increased by 33 percent, and that of olive oil increased by 21.5% over that time period. In the wake of the COVID outbreak, 70% of US consumers have reduced their food shopping frequency and favoured internet marketing.

Conclusion

If there is an outbreak of a pandemic, the food industry, which is one of the most crucial sectors alongside health, must continue to supply food and keep the world economy from suffering. Despite the fact that there haven't been any big issues with the food supply chain thus far, the future remains unpredictable. Because of this, each country should grasp the gravity of the situation and, depending on the spread of the pandemic, adjust its policies accordingly. It's also important that the supply chain be able to adapt to changes in the food industry.

We actually sort out humankind's outcomes, economy, and food handling (Galanakis, 2020). Additionally, the supply chain must be able to respond to the challenges in the food supply chain. Reviving the economy is the primary goal of a public distribution system (PDS). To better understand COVID-19 circumstances, frameworks for PDS coordination are being considered.

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