

Air Freight Impact on the Colombian Flower Industry

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Introduction: Air Freight Challenge on the Colombian Flower Industry

Do you know where the flowers you buy for your mother, or your significant other come from? Have you ever thought how are those flowers grown and shipped to be sold in the streets or supermarket? The answer to those questions is from Colombia. The flower industry is dominated by only a few major countries, with Colombia being the second largest exporter in the world. Colombia is the number one exporter of flowers in the United States. Chances are that the roses bought for Mother's Day or Valentine's Day in the U.S. came from Colombia. In fact, according to the Colombian Association of Flower Exporters called Asocolflores, three out of four flowers sold in the U.S. are grown in Colombia (Figueroa et al., 2012).

The relationship between Colombia and the United States is not one-sided; it is symbiotic, as both countries benefit economically through the arrangement. Around 150 flower importer-distributor companies in the United States, mainly in Miami, have been founded. Cut flowers have become the essential cargo item for Miami International airport. Other airports, such as Bogota's International airport, oversee up to 200,000 tons of flowers via air freight. The flower industry is the source of \$7 billion when U.S.-based importers supply to brokers, wholesalers, truckers, and retailers. Therefore, the Colombian flower industry has been negatively affected due to the increase in air freight prices.

The Colombian Flower Industry History

Colombia as a Leading Flower Exporter

There are geographical and economic advantages in the production of flowers in Colombia that make it a competitive and leading industry worldwide. Its location near the equator offers the perfect climate conditions to grow flowers, including 12-hour days year-round,

altitude, rich soil, and water abundance. Colombian's proximity to the North American market is also an advantage from which the country started benefiting once the distribution infrastructure was put in place. The Free-Trade Agreement between Colombia and the United States which allows tariff-free imports of flowers has allowed further consolidation of the floricultural sector in Colombia. It also has created stability in the flower supply industry of the United States.

Colombia and U.S. Symbiotic Bond

Colombian flower farms have used the country's favorable climate, low cost of labor, and favorable economic conditions. The economic advantages include the exchange rate advantages and proximity to the U.S., which have contributed significantly to making it the largest exporter of flowers in the United States. The relationship between the United States and Colombia concerning the sale of flowers began over forty years ago (Figueroa et al., 2012). The relationship has helped grow the Colombian flower industry and, ultimately, the country's economy. In the early 1990s, the sale of flowers became the primary focus in the trade negotiations between the U.S. and Colombia. In 1991, the Andean Trade Preference Act (ATPA) was passed. The act used to trade and economic incentives to help four Andean countries combat drug production within the borders. The four countries were Colombia, Peru, Bolivia, and Ecuador. The pact cancelled the tariff duties on products such as cut flowers to increase production and encourage exports. The trade agreement was renewed and expanded in 2002, and the name changed to the Andean Trade Promotion and Drug Eradication Act (ATPDEA).

Flower Export Contribution to the Colombian Economy and Society

The U.S. has given aid to Colombia that helps in promoting and distributing social aid. Colombia has also received funds from other sources, such as USAID. Funding has created 172,000 jobs, with 92,000 being associated with floriculture and the largest employer of women

in rural places. Women consist of sixty-five percent of the population employed. The industry has implemented a 'corporate responsibility sector that has created childcare centers, led to subsidized meals, and helped in continuing elementary and secondary education.

Why Have Air Freight Prices Increased Since the Covid-19 Pandemic?

Reduced Cargo Capacity

There has been a massive increase in the costs of air freights to the point where Colombian exporters are paying higher airfreight to the U.S. than they used to pay in Europe (Wakefield, 2021). Although the demand is still strong and flower prices are still relatively reasonable, they need to be higher to cater to the increased freight costs. Several reasons have led to the high freight prices. They include one, the significant reduction of cargo capacity that happened over the Covid-19 pandemic. Secondly, according to a manager at Flores Funza in Bogota, Savannah, it takes much work to get cargo space. She also stated that flight frequency is often insufficient, forcing them into chartering very costly planes. During the pandemic, there were reduced passenger flights. It impacted the crew availability leading to constraints in the plane flexibilities. Finally, a significant issue that has led to skyrocketing prices is the lack of compensation cargo.

Increased Fuel Prices

Other reasons why the airfreight cost have increased is fuel prices. One driving factor for the increase in airfreight cost is fuel cost (Beaumont-Smit, 2021). The current war between Russia and Ukraine has influenced the price of petroleum. The reason for the ongoing war is because Russian ambitious to control the pipeline that goes to though Ukraine to the rest of Europe has led them to try to seize control of the land, which used to be part of the Soviet Union.

Therefore, fuel for transportation has become more costly. Hence, air cargo companies have had to increase their cargo price to break even or profit from air cargo transportation shipments. In the same token, current Russian sanctions on the rest of the world have increased prices on fuel, which ultimately affects the whole world and every industry.

Increased Demand and Limited Supply

As government restrictions were lifted, consumption increased. Changes in demand, not just in the flower industry, are driven by the market (Beaumont-Smit, 2021). Hence, it is a battle between exporters to get their products shipped, increasing air-cargo prices due to the high demand and need for supply worldwide.

Air Freight Prices Impact on the Colombian Flower Industry

Colombian Flower Growers Unable to Export

Flower exports saw a slight decrease during the height of the pandemic when production slowed down and air freight prices skyrocketed. Such is the case for the Valentine's Day season in February 2021, when demand was still high in the United States, but cargo space from Colombia was reduced. One of the main flower cargo providers, the 777 aircraft from Cargolux, which departed three times a week from Colombia and Ecuador packed with flowers in the pre-pandemic era, had not resumed their service during such Valentine's Day season, putting a lot of strain in exporters who had to use alternative charter planes at very high costs (Pizano, 2021).

Mass Production Loss

Reduced air freight capacity and weaknesses in the supply chain have caused significant losses due to flowers wasted away unshipped, orders missed, and flowers rejected due to quality loss. The beginning of the pandemic in 2020 saw the biggest slump in shipment of flowers and thus a mass production loss. When the shutdown happened, there was no market for flowers and growers had to dispose of them. Weddings and other events were canceled and even funerals had restricted gatherings, thus impacting greatly the supply of flowers that is normally needed. An example of the impact is a small flower growing company in Colombia with 27 employees in the Bogota Savanna, which saw sales slump by 40 percent and was forced to throw away approximately 220,000 flowers between March 20 and April 20 (Bristow, 2021). Large flower companies were not as heavily affected by the downturn as small ones did. Large companies contract with big corporations such as Walmart Inc. and sold 100 percent of their output, making up the difference with purchases from smaller growers (Bristow, 2021).

Economic Impact for Colombia

Sales of Colombian flowers were down 40% in the second quarter of 2020 because of measures taken by many countries around the world to control the Covid-19 spread. Even though this decline was less than the 80% decrease that the Colombian flower industry projected at the beginning of the outbreak, the financial losses were huge for one of Colombia's biggest exports (USDA, 2020). After the Summer of 2020, demand was slowly coming back but air freight prices had increased significantly. Bloomberg states that as the pandemic progressed, people in the United States started new habits such as sending each other flowers when they could not meet in person or buying more flowers to brighten up their homes during lockdown. Bloomberg explains that people had more money at their disposal because of restrictions to eat out or go on

vacations, thus demand increased but supply was seeing a major disruption due to the air freight price increases and limited cargo capacity (Bristow, 2021).

Solutions to Air Freight Price Increase

Optimized Packaging

By simply applying the right packaging expertise in the right way, flower growers can optimize their shipping weight and make better use of scarce freight. Flowerwatch (2022) explains that by upgrading the shipping weight per pallet of flowers, for example, from 1,500kg to 2,200kg, growers can save thousands on freight costs per week. This can be achieved by applying the right packaging expertise in the right way. Optimized packaging also limits flower damage, reduces reject percentages, improves vase life, and it is more environmentally friendly.

Sea Freight

Sea freight is one of the most viable alternatives to the costly air freight shipping of Colombian flowers to the United States and other importing countries. It started gaining popularity a few years before the Covid-19 pandemic and it rose during the pandemic when disruptions in air freight started, and costs increased. Sea freight provides advantages such as refrigerated transport, increased points of market entry, and monitoring technology, though it also has disadvantages in logistics that make it a vulnerable option (Sealand, 2019). The bottleneck situation experienced at the ports because of increased demand and supply chain disruptions during the pandemic also hurt sea freight as an option for flower exports in Colombia.

Ship containers provide the ideal refrigerated environment for flowers to be transported, as opposed to air shipping where there is no refrigeration. Once loaded, they travel in a stable cold environment to their destination. Monitoring technology during sea freight shipping allow sensors to control the temperature, CO2 levels, humidity, and the power status of the container. This increases the vase-life of flowers, which is how floral buyers measure flower quality.

Sea freight also offers transportation to different US ports, expanding the number of entry points for flower shipments. An example is the port of Philadelphia, which is close to the New York metro area where there is enormous demand for flowers. Air freight is limited to a few destinations including South Florida (Sealand, 2019).

Even though sea freight seems like a viable option for the Colombian flower industry, it has logistical challenges including complex paperwork, multiple inspections, and delays that can disrupt the cold chain and decrease vase-life. Air freight still represents over 90% of the cut flowers shipments from Colombia. Another major downside to maritime shipment in Colombia is that cut flowers must be transported from the middle of the country in Bogota and other areas to the coast ports via trucks, which is challenging due to the topography and conditions of the roads (Pizano, 2021).

Innovative Storage Solutions

Unplanned delays and standstills also cause major losses due to flowers being wasted, thus integrating smart storage solutions is a solution that can help the flower industry. Solid storage solutions that can increase vase life can be easy to implement and less costly than expected (Flowerwatch, 2022).

Conclusion

The Colombian flower industry has numerous competitive advantages for flower production and export including land availability, suitable climate conditions, labor expertise, infrastructure, and favorable trade agreements with the United States. There are challenges that threaten the stability of the industry such as rising costs in air freight, increased competition, and negative effects of climate change. These challenges have been exacerbated in the past few years due to the Coronavirus pandemic, political instability in Asia, and the global inflation. The Colombian flower industry needs to look at alternatives such as sea freight instead of air freight to reduce shipping costs, smart storage and container solutions to minimize losses in quality and freshness, and sustainability methods that can wave the effects of climate change.

The Colombian flower industry greatly benefits from the agreements it holds with the United States and European countries, with positive effects such as economic growth, social development, labor opportunities, and technological advancement. However, Colombia is still a developing country that faces disadvantages when compared to large economies like the United States. Labor is sometimes cheap and not well regulated, to cut processing costs for exports. Environmental regulations are sometimes bypassed to minimize costs and expedite orders. Colombia has had a positive outcome since the signing of the trade agreements, and it is possible that it continues to have a positive outcome once the current challenges in air freight are overcome. Social and environmental challenges will continue to pose a threat to the economic growth of the country. The World Trade Organization, as the body that oversees equality, justice, and cooperation in trade among nations, needs to ensure that Colombia as well as other developing countries, continue their path of development and are not treated unjustly.

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