

MiniProject Proposal



GROUP 9 - Harsha Vardhan Reddy Tamtam, Sajeev Singh, Heamesh Choudary Nettem, Ajinkya M Phanse

Thesis:

The Impact of COVID-19 on trade dynamics of major economies: A comparative analysis of export-import shifts. And identifying the countries that benefited trade-wise during the pandemic.

ChatGPTs Evaluation on Thesis:

Prompt:

<p>“Tell me how the trade dynamics (export/import shifts) of major economies got impacted during COVID-19”.</p>	<p>What sectors are highly impacted during COVID-19?</p>
<div><div> ChatGPT</div><p>The COVID-19 pandemic significantly impacted the trade dynamics of major economies, resulting in profound shifts in exports and imports across the globe. These impacts were multifaceted, affecting supply chains, demand for goods, and the overall trade balance of countries. Here's an overview of the key ways in which trade dynamics were impacted:</p><ol style="list-style-type: none">Supply Chain Disruptions: The pandemic led to severe disruptions in global supply chains. Lockdown measures, factory closures, and labor shortages in key manufacturing hubs, particularly in China and other parts of Asia, led to delays and shortages of raw materials and finished goods. This affected the ability of countries to export goods, as production slowed or halted entirely.Shift in Demand for Goods: There was a significant shift in consumer demand during the pandemic. Demand for medical supplies, personal protective equipment (PPE), and home office equipment soared, while demand for luxury goods, automobiles, and non-essential items plummeted. This shift influenced export and import patterns, with countries adjusting their trade to meet the new demand landscape.Transportation and Logistics Challenges: Restrictions on movement and health concerns led to a reduction in the workforce available for shipping and logistics, affecting both sea and air freight capacities. This resulted in increased shipping costs and longer delivery times, further complicating trade activities.Digitalization and E-commerce: The pandemic accelerated the shift towards digitalization and e-commerce. Countries with a strong e-commerce infrastructure and digital services were able to capitalize on this shift, seeing an increase in exports of digital goods and services.Trade Policy Adjustments: In response to the pandemic, many countries implemented trade policy adjustments, including tariffs, export bans on medical supplies and food products, and incentives for local production. These policies further influenced trade dynamics, sometimes leading to trade tensions and the reshaping of trade alliances.Resilience of Specific Sectors: While many sectors suffered due to the pandemic, others found new opportunities. For example, the pharmaceutical sector and manufacturers of medical equipment saw increased exports due to the global demand for vaccines, medicines, and health-related products.Beneficiary Countries: Certain countries managed to benefit from these shifts in trade dynamics. For instance, countries that were able to quickly ramp up the production of PPE, medical supplies, or those that had a surplus of agricultural products, saw an increase in their export volumes. Conversely, countries reliant on tourism, fossil fuels, or those heavily impacted by supply chain disruptions faced significant trade deficits.<p>The pandemic underscored the interconnectedness of global trade and the importance of resilient and adaptable supply chains. It also highlighted the need for diversification in trade and production to mitigate future shocks. The long-term impacts of these shifts are still unfolding, as countries continue to navigate the challenges of recovery and the potential reshaping of global trade networks.</p></div>	<div><div> ChatGPT</div><p>The COVID-19 pandemic has had a profound impact on various sectors, with some experiencing significant downturns while others found unexpected opportunities for growth. Here's a summary of the sectors that were highly impacted:</p><h3>Negatively Impacted Sectors</h3><ol style="list-style-type: none">Tourism and Hospitality: One of the hardest-hit sectors, with travel bans, lockdowns, and social distancing measures drastically reducing demand for travel, accommodation, and related services.Aviation and Aerospace: The aviation sector faced a dramatic decline in passenger numbers, leading to financial distress for airlines and significant impacts on aerospace manufacturers due to reduced orders for new aircraft.Retail (Non-Essential Goods): Physical retail stores, especially those selling non-essential goods, faced closures and reduced customer footfall, significantly impacting sales.Automotive: The sector experienced disruptions in supply chains, closures of manufacturing plants, and a decrease in consumer demand, leading to a significant drop in sales and production.Oil and Gas: Reduced demand for transportation and industrial activities led to an unprecedented drop in oil prices, significantly affecting countries and companies reliant on oil revenues.Entertainment and Leisure: Cinemas, theaters, amusement parks, and other leisure facilities were closed or operated at reduced capacity, severely affecting revenues.<h3>Positively Impacted Sectors</h3><ol style="list-style-type: none">Pharmaceuticals and Healthcare: This sector experienced significant growth due to the high demand for COVID-19 vaccines, treatments, medical supplies, and equipment.E-Commerce and Digital Services: With more people shopping online and working from home, there was a surge in demand for e-commerce, cloud computing, and online communication platforms.Logistics and Delivery Services: The reliance on home deliveries for goods and groceries led to an increase in demand for logistics and delivery services.Technology and Electronics: The shift to remote work and online schooling drove demand for computers, peripherals, and software solutions.Fitness and Home Entertainment: With people spending more time at home, there was increased demand for home fitness equipment and digital entertainment options, including streaming services and video games.<p>The pandemic highlighted the vulnerability of certain sectors to global shocks while underscoring the importance of adaptability and digitalization. Recovery trajectories for these sectors vary, with some expected to bounce back quickly as restrictions ease, while others may face a longer road to recovery or undergo fundamental changes in their business models.</p></div>

Sub-Topics:

1. Overall trend of global trade during pandemic.
Data Source: [Global Trade volumes](#)
2. Impact on export & imports of major economies.
 - a. Impact on consumer goods due to supply chain disruption.
Data Source: [Import/Export by Products](#)
 - b. Impact on crudeoil exporting on Middle East countries due shift in demand for goods and commodities.
Data Source: [Export/Import Crudeoil](#)
 - c. Impact on European countries due to a halt in tourism.
Data Source: [Countries Tourism vs GDP Data](#)
3. Beneficiary Countries.
 - a. Impact on countries with strong medical exports. With surge in demand on tablets, vaccines, medical instruments.
Data Source: [Medical Export/Import](#)
 - b. Impact on economies which rely on IT services exports.
Data Source: [IT Services Export/Import](#)

Fields to look into:

1. Overall trend of global trade during pandemic.
 - Country Name
 - Year
 - Export percentage
 - Import %
 - GDP
 - Health Expenditure
2. Impact on consumer goods due to supply chain disruption.
 - BACI_HS.csv
 - Product_code
 - Amount in USD
 - Weight
 - Year
 - Exporter
 - importer
 - Product_codes.csv
 - Product code
 - Product name
 - Country_codes.csv

- Country code
 - Country name
3. Impact on crudeoil exporting on Middle East countries due shift in demand for goods and commodities.
 - Country
 - Trade value
 - Year
 - Action
 4. Impact on European countries due to a halt in tourism.
 - SDG_tourism.csv
 - Geo area name(countries)
 - Geo area code(Country code)
 - Time period
 - GDP to tourism percentage
 - GDP in USD
 5. Impact on countries with strong medical exports. With surge in demand on tablets, vaccines, medical instruments.
 - Country or Area
 - Flow (Import or Export)
 - Year
 - Trade Value (USD)
 - Quantity
 6. Impact on economies which rely on IT services exports.
 - Country or Area
 - Estimated Value
 - Year
 - Import/Export
 - Product/Sector (Various sectors can be analyzed- software resources, Telecommunication Services)

ChatGPT Prompts:

Prompt: “What countries are highly affected due to tourism and hospitality. Are there any major economies?”

Tourism is one of the biggest revenue generation industries in the world. So analyzing this is important in understanding the trade dynamics.

ChatGPT, prompted that majorly European economies are affected due to this tourism & hospitality disturbances.

Prompt: “What countries are benefited via trade(exports&imports) during this time?”

This is very important because in our thesis we also mentioned of discussing about the countries and sectors benefited via trade during this time.

Prompt: “What about IT exports and imports and which countries are benefited from this?”

Trade of physical goods and commodities were halted, but IT services exports increased drastically. Big economies like India, China will be benefited by these.